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UNITED STATES – MEASURES CONCERNING THE IMPORTATION, MARKETING AND SALE OF TUNA AND TUNA PRODUCTS

RECOURSE TO ARTICLE 21.5 OF THE DSU BY THE UNITED STATES

UNITED STATES – MEASURES CONCERNING THE IMPORTATION, MARKETING AND SALE OF TUNA AND TUNA PRODUCTS

SECOND RECOURSE TO ARTICLE 21.5 OF THE DSU BY MEXICO

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Canada – Renewable Energy / Canada – Feed-in Tariff Program	Panel Reports, *Canada – Certain Measures Affecting the Renewable Energy Generation Sector / Canada – Measures Relating to the Feed-in Tariff Program*, WT/DS412/R and Add.1 / WT/DS426/R and Add.1, adopted 24 May 2013, as modified by Appellate Body Reports WT/DS412/AB/R / WT/DS426/AB/R, DSR 2013:I, p. 237
Canada – Dairy (Article 21.5 – New Zealand and US)	Panel Report, *Canada – Measures Affecting the Importation of Milk and the Exportation of Dairy Products – Recourse to Article 21.5 of the DSU by New Zealand and the United States*, WT/DS103/RW, WT/DS113/RW, adopted 18 December 2001, as reversed by Appellate Body Report WT/DS103/AB/RW, WT/DS113/AB/RW, DSR 2001:XIII, p. 6865
EU – Biodiesel (Argentina)	Appellate Body Report, *European Union – Anti-Dumping Measures on Biodiesel from Argentina*, WT/DS473/AB/R and Add.1, adopted 26 October 2016
EC – Hormones	Appellate Body Report, *EC Measures Concerning Meat and Meat Products (Hormones)*, WT/DS26/AB/R, WT/DS48/AB/R, adopted 13 February 1998, DSR 1998:I, p. 135
EC and certain member States – Large Civil Aircraft	Appellate Body Report, *European Communities and Certain Member States – Measures Affecting Trade in Large Civil Aircraft*, WT/DS316/AB/R, adopted 1 June 2011, DSR 2011:I, p. 7
EC – Seal Products	Panel Reports, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/R and Add.1 / WT/DS401/R and Add.1, adopted 18 June 2014, as modified by Appellate Body Reports WT/DS400/AB/R / WT/DS401/AB/R, DSR 2014:II, p. 365
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Japan – DRAMs (Korea)	Appellate Body Report, *Japan – Countervailing Duties on Dynamic Random Access Memories from Korea*, WT/DS336/AB/R and Corr.1, adopted 17 December 2007, DSR 2007:VII, p. 2703
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US – Continued Suspension	Appellate Body Report, *United States – Continued Suspension of Obligations in the EC – Hormones Dispute*, WT/DS320/AB/R, adopted 14 November 2008, DSR 2008:X, p. 3507
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US – Tax Incentives	Panel Report, *United States – Conditional Tax Incentives for Large Civil Aircraft*, WT/DS487/R and Add.1, circulated to WTO Members 28 November 2016 (appealed by the United States 16 December 2016)
US – Tuna II (Mexico)	Appellate Body Report, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/AB/R, adopted 13

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US – Tuna II (Mexico)	Panel Report, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/R, adopted 13 June 2012, as modified by Appellate Body Report WT/DS381/AB/R, DSR 2012:IV, p. 2013
US – Tuna II (Mexico) (Article 21.5 – Mexico)	Appellate Body Report, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products – Recourse to Article 21.5 of the DSU by Mexico*, WT/DS381/AB/RW and Add.1, adopted 3 December 2015
US – Tuna II (Mexico) (Article 21.5 – Mexico)	Panel Report, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products – Recourse to Article 21.5 of the DSU by Mexico*, WT/DS381/RW, Add.1 and Corr.1, adopted 3 December 2015, as modified by Appellate Body Report WT/DS381/AB/RW
US – Tuna II (Mexico) (Article 22.6 – US)	Decision by the Arbitrator, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products – Recourse to Article 22.6 of the DSU by the United States*, WT/DS381/ARB, 25 April 2017
US – Upland Cotton (Article 21.5 – Brazil)	Panel Report, *United States – Subsidies on Upland Cotton – Recourse to Article 21.5 of the DSU by Brazil*, WT/DS267/RW and Corr.1, adopted 20 June 2008, as modified by Appellate Body Report WT/DS267/AB/RW, DSR 2008:III, p. 997
US – Wool Shirts and Blouses	Appellate Body Report, *United States – Measure Affecting Imports of Woven Wool Shirts and Blouses from India*, WT/DS33/AB/R, adopted 23 May 1997, and Corr.1, DSR 1997:I, p. 323

EXHIBITS REFERRED TO IN THESE REPORTS

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USA-04	NOAA Fisheries Certificate of Origin (Form 370)
USA-07	Enhanced Document Requirements and Captain Training Requirements To Support Use of the Dolphin Safe Label on Tuna Products, 81 Fed. Reg. 15,444 (March 23, 2016)
USA-09	Evgeny V. Romanov, Bycatch in the Tuna Purse Seine Fisheries of the Western Indian Ocean, 100 Fisheries Bulletin 90 (2002)
USA-10	NOAA, Dolphin-Safe Captain's Training Course (March 23, 2016)
USA-11	William Jacobson Second Witness Statement (July 21, 2014)
USA-12	Tim Gerrodette, The Tuna-Dolphin Issue, in Perrin, Wursig and Thewissen (eds.) Encyclopedia of Marine Mammals (2d ed. 2009)
USA-13	Tables Summarizing Fishery-by-Fishery Evidence on the Record
USA-14	IATTC, Tuna, Billfishes and Other Pelagic Species in the Eastern Pacific Ocean in 2014, Doc. IATTC-89-04a, IATTC 89th Meeting (June 29-July 3, 2015)
USA-15	IATTC, Report on the International Dolphin Conservation Program, Doc. MOP-32-05, 32nd Meeting of the Parties (October 20, 2015)
USA-16	IATTC, EPO Dataset 2009-2013
USA-17	Summary Information on Whale Shark and Cetacean Interactions in the Tropical WCPFC Purse Seine Fishery, Paper prepared by SPC-OFP, 8th Regular Session, Koror, Palau (November 2011)
USA-18	WCPFC Scientific Committee, Fifth Regular Session Summary Report (2009)
USA-19	Monin J. Amande et al., Bycatch of the European Purse Seine Tuna Fishery in the Atlantic Ocean for the 2003-2007 Period, 23 Aquat. Living Resour. 353 (2010)
USA-20	Monin J. Amande et al., Bycatch and Discards of the European Purse Seine Tuna Fishery in the Atlantic Ocean: Estimation and Characteristics for 2008 and 2009, 66 ICCAT Collect. Vol. Sci. Papers 2113 (2011)
USA-21	Monin J. Amande et al., Precision in Bycatch Estimates: The Case of Tuna Purse Seine Fisheries in the Indian Ocean, ICES J. Mar. Sci. (2012)
USA-27	Federated States of Micronesia, Annual Report to the Commission, WCPFC-SC11-AR/CCM-06, (July 27. 2015)
USA-29	Japan, Annual Report to the Commission, WCPFC-SC11/AR/CCM-10 (July 31, 2015)
USA-30	Korea, Annual Report to the Commission, WCPFC-SC11-AR/CCM-12 (August 30, 2015)
USA-31	Chinese Taipei, Annual Report to the Commission, WCPFC-SC11-AR/CCM-23 (November 3, 2015)
USA-33	Australia, Annual Report to the Commission, WCPFC-SC10-AR/CMM-01 (July 2014)
USA-34	Federated States of Micronesia, Annual Report to the Commission, WCPFC-SC10-AR/CCM-06 (August 2014)
USA-35	Japan, Annual Report to the Commission, WCPFC-SC10/AR/CCM-10 (July 2014)
USA-36	Kirbati, Annual Report to the Commission, WCPFC-SC11/AR/CCM-11 (July 20, 2015)
USA-38	Philippines, Annual Report to the Commission, WCPFC-SC11/AR/CCM-20 (September 28, 2015)
USA-39	NOAA Fisheries, 2015 Stock Assessment and Fishery Evaluation (SAFE) Report for Atlantic Highly Migratory Species (2015)
USA-40	Hernandez-Milian, et al., Results of a Short Study of Interactions of Cetaceans and Longline Fisheries in Atlantic Waters, 612 Hydrobiologia 254 (2008)
USA-42	Barbara E. Curry, Stress in Mammals: The Potential Influence of Fishery-Induced Stress on Dolphins in the Eastern Tropical Pacific Ocean, NOAA Technical Memorandum (1999)
USA-43	Shawn R. Noren, and Elizabeth F. Edwards, Physiological and Behavioral Development in Delphinid Calves: Implications for Calf Separation and Mortality Due to Tuna Purse-Seine Sets, 23 Marine Mammal Science (2007)
USA-44	Frederick Archer et al., Annual Estimates of the Unobserved Incidental Kill of Pantropical Spotted Dolphin (Stenella Attenuata Attenuata) Calves in the Tuna Purse-Seine Fishery of the Eastern Tropical Pacific, 102 Fishery Bulletin 233 (2004)
USA-45	Katie L. Cramer, Wayne L. Perryman and Tim Gerrodette, Declines in Reproductive Output in Two Dolphin Populations Depleted by the Yellowfin Tuna Purse Seine Fishery, 369 Marine Ecology Progress Series 273 (2008)
USA-46	Albert C. Myrick and Peter C. Perkins, Adrenocortical Color Darkness and Correlates as Indicators of Continuous Acute Premortem Stress in Chased and Purse Seine Captured Male Dolphins, 2 Pathophysiology 191 (1995)
USA-47	Stephen B. Reilly et al., Report of the Scientific Research Program Under the International Dolphin Conservation Program Act (2005)
USA-48	Paul R. Wade et al., Depletion of Spotted and Spinner Dolphins in the Eastern Tropical Pacific: Modeling Hypothesis for their Lack of Recovery, 343 Marine Ecology Progress Series 1 (2007)

USA-50	Agreement for the Conservation of Dolphins (1992)
USA-52	William Jacobson Witness Statement (May 26, 2014)
USA-53	Eric L. Gilman and Carl Gustaf Lundin, IUCN Global Marine Programme, Minimizing Bycatch of Sensitive Species Groups in Marine Capture Fisheries: Lessons from Tuna Fisheries (2011)
USA-58	16 USC Section 1362(13)
USA-60	Martin Hall and Marlon Roman, Bycatch and Non-Tuna Catch in the Tropical Purse Seine Fisheries of the World, FAO Fisheries and Aquaculture Technical Paper 568 (2013)
USA-61	William A. Karp, Lisa L. Desfosse, and Samantha G. Brooke (eds.), NMFS, US National Bycatch Report, at 391, Table 4.6.C.1 and 394, Table 4.6.D.1 (2011)
USA-62	National Bycatch Report First Edition Update, Table 8.3
USA-63	National Bycatch Report First Edition Update, Table 8.4
USA-66	United Nations General Assembly Res. 46/215, Large-Scale Pelagic Drift-net Fishing and Its Impact on the Living Marine Resources of the World's Oceans and Seas (December 20, 1991)
USA-67	NMFS, 2012 Report of The Secretary Of Commerce to the Congress of the United States Concerning US Actions Taken On Foreign Large-Scale High Seas Driftnet Fishing (2012)
USA-68	Megan J. Peterson et al., Killer Whale (Orcinus orca) Depredation Effects on Catch Rates of Six Groundfish Species: Implications for Commercial Longline Fisheries in Alaska, 70 ICES J. of Marine Science 1220 (2013)
USA-90	International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015)
USA-91	AIDCP, Tuna Tracking Form
USA-101	NMFS, Proposed Rule: List of Fisheries for 2017, 81 Fed. Reg. 54,019 (August 15, 2016)
USA-104	Andre E. Punt, Independent Review of the Eastern Pacific Ocean Dolphin Population Assessment, IATTC Special Report (2013)
USA-105	Philippines, Annual Report to the Commission, WCPFC SC12-AR/CCM-20 (June 2016)
USA-107	Papua New Guinea, Annual Report to the Commission, WCPFC-SC12/AR/CMM-19 (August 2016)
USA-108	Peter Williams and Peter Terawasi, WCPFC, Overview of Tuna Fisheries in the Western and Central Pacific Ocean, Including Economic Conditions – 2015 (August 30, 2016)
USA-109	WCPFC, 7th Annual Report for the Regional Observer Programme (September 3, 2015)
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USA-114	NMFS, False Killer Whale: Hawaiian Islands Stock Complex (December 31, 2015)
USA-118	Karin A. Forney, SFSC, Estimates of Cetacean Mortality and Injury in Two US Pacific Longline Fisheries, 1994-2002 (2004)
USA-127	Hsiang-Wen Huang, Bycatch of High Sea Longline Fisheries and Measures Taken by Taiwan: Actions and Challenges, 35 Mar. Pol'y 712 (2011)
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USA-145	Lauriane Escalle et al., Cetaceans and Tuna Purse Seine Fisheries in the Atlantic and Indian Oceans: Interactions but Few Mortalities, 522 Mar. Ecol. Prog. Ser. 255 (2015)
USA-148	James Joseph, FAO, Managing Fishing Capacity of the World Tuna Fleet, Chapter 4: The Tuna Fishing Vessels of the World (2003)
USA-150	China, Annual Report to the Commission, WCPFC-SC12-AR/CMM-03 (August 2016)
USA-151	Federated States of Micronesia (FSM), Annual Report to the Commission, WCPFC-SC12-AR/CMM-06 (September 21, 2016)
USA-152	Japan, Annual Report to the Commission, WCPFC-SC12/AR/CMM-10 (July 5, 2016)
USA-153	Kirbati, Annual Report to the Commission, WCPFC-SC12-AR/CMM-11 (September 23, 2016)
USA-154	Marshall Islands, Annual Report to the Commission, WCPFC-SC12-AR/CMM-13 (August 2016)
USA-155	Solomon Islands, Annual Report to the Commission, WCPFC-SC12-AR/CMM-22 (September 24, 2016)
USA-156	Chinese Taipei, Annual Report to the Commission (August 2016)
USA-157	United States, Annual Report to the Commission, WCPFC-SC12-AR/CMM-27 (August 2016)
USA-160	Al Kingston and Simon Northridge, Extension Trial of an Acoustic Deterrent System to Minimise Dolphin and Porpoise Bycatch in Gill and Tangle Net Fisheries (2011)
USA-162	FAO, Tuna Midwater Pair Trawling, http://www.fao.org/fishery/fishtech/1013/en
USA-163	Alison McCarthy et al., Pilot Observer Programme in Irish Pelagic Trawl and Gillnet Fisheries: Implementing Council Regulation (EC) No 812/2004 (2011)
USA-164	John Boyd et al., Report on the Pilot Observer Programme in Irish Pelagic Trawl Fisheries: Implementing Council Regulation (EC) No 812/2004 (2012)
USA-166	18 USC Section 545
USA-167	18 USC Section 3571
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USA-170	US Department of Commerce, Civil Monetary Penalty Adjustments for Inflation, 81 Fed. Reg. 36454 (June 7, 2016)
USA-172	16 USC Section 3374
USA-173	18 USC Section 1001
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USA-178	David Macias Lopez et al., Marine Mammal Bycatch in Spanish Mediterranean Large Pelagic Longline Fisheries, with a Focus on Risso's Dolphin (Grampus Griseus), 25 Aquat. Living Res. 321 (2012)
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USA-187	United States, Annual Report to the Commission, WCPFC-SC11/AR/CCM-20 (July 31, 2015)
USA-189	Hsiang-Wen Huang and Kwang-Ming Liu, Bycatch and Discards by Taiwanese Large-Scale Tuna Longline Fleets in the Indian Ocean, 106 Fish. Res. 261 (2010)
USA-191	Emmanuel Chassot et al., Statistics of the French Purse Seine Fishing Fleet Targeting Tropical Tunas in the Atlantic Ocean (1991-2013), 71 ICCAT Collect. Vol. Sci. Papers 540 (2015)
USA-196	Geoffrey R. McPherson et al., Acoustic Alarms to Reduce Marine Mammal Bycatch from Gillnets in Queensland Waters: Optimising the Alarm Type and Spacing, 2 Proc. Acoustics 363 (2004)
USA-197	Shane Griffiths et al., Biology, Fisheries and Status of Longtail Tuna (Thuunus tongol), with Special Reference to Recreational Fisheries in Australian Waters, Final report of Fisheries Research and Development Corporation (2010)
USA-198	NMFS, California/Oregon Drift Gillnet Observer Program Observed Catch
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USA-200	Martin Hall and Marlon Roman, Bycatch and Non-Tuna Catch in the Tropical Purse Seine Fisheries of the World, FAO Fisheries and Aquaculture Technical Paper 569 (2013)
USA-205	Sian Morgan et al., SCS Global Services, MSC Full-Assessment Report: The Northeastern Tropical Pacific Purse Seine Yellowfin and Skipjack Fishery (2016)
USA-206	Frederick I. Archer et al., Estimation of Relative Exposure of Dolphins to Fishery Activity, 410 Marine Ecology Progress Series 245 (2010)
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USA-227	Tim Lawson, Secretariat of the Pacific Community, Methods for Analysing Bycatches with Observer Data (August 2001)
USA-228	Shelley Clarke, Towards an Integrated Shark Conservation and Management Measure for the Western and Central Pacific Ocean, WCPFC-SC9-2013/EB-WP-08 (August 2013)
USA-230	Sandra Clermont et al., IOTC, EU Purse Seine Fishery Interaction with Marine Turtles in the Atlantic and Indian Oceans: A 15 Years Analysis, IOTC 2012 WPEB08 35_V2 (September 2012)
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MEX-07	Government Accountability Office, National Marine Fisheries Service: Improvements are Needed in the Federal Process Used to Protect Marine Mammals from Commercial Fishing, GAO 09-78 (December 2008)
MEX-08	AIDCP, Report on the International Dolphin Conservation Program, Document MOP-28-05 (October 18, 2013)
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	Centres Along The Indian Coast, Marine Biodiversity Records, Vol. 2 (2009)
MEX-18	Natural Resources Defense Council, Net Loss: The Killing of Marine Mammals in Foreign Fisheries (January 2014)
MEX-19	Convention on Migratory Species, Report of the Second Workshop on The Biology and Conservation of Small Cetaceans and Dugongs of South-East Asia, CMS Technical Series Publication No. 9 (July 2002)
MEX-21	Young and Iudicello, Worldwide Bycatch of Cetaceans, US Department of Commerce, NOAA Tech. Memo. NMFS-OPR-36 (July 2007)
MEX-22	Convention on Migratory Species, Report of the Third Southeast Asian Marine Mammal Symposium, CMS Technical Series No. 32 (2015)
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MEX-113	Kobe II Bycatch Workshop Background Paper
MEX-116	WCPFC, Status of ROP Data Management, WCPFC-TCC11-2015-IP05_rev1 (10 September 2015)
MEX-117	L. Dolar, Incidental Takes of Small Cetaceans in Fisheries in Palawan, Central Visayas and Northern Mindanao in the Philippines, in Report of International Whaling Commission (Special Issue 15) (1994)
MEX-118	NOAA, Marine Mammal Stock Assessment Report, False Killer Whale: Hawaiian Islands (December 31, 2015)
MEX-120	L. Mannocci et al., Assessing the Impact of Bycatch on Dolphin Populations: the Case of the Common Dolphin in the Eastern North Atlantic, Plos One 7(2) e32615 (February 2012)
MEX-122	NOAA Fisheries, CA Thresher Shark/Swordfish Drift Gillnet Fishery
MEX-124	National Marine Fisheries Service, Biological Opinion on the US WCPO Purse Seine Fishery (November 1, 2006)

ABBREVIATIONS USED IN THESE REPORTS

Abbreviation	Description
2016 Rule	Enhanced Document Requirements and Captain Training Requirements to Support Use of the Dolphin Safe Label on Tuna Products, 81 Fed. Reg. 15,444 (March 23, 2016)
2013 Rule	Enhanced Document Requirements to Support Use of the Dolphin Safe Label on Tuna Products, 78 Fed. Reg. 40,997 (July 9, 2013)
AIDCP	Agreement on the International Dolphin Conservation Program
BCI	Business confidential information
BPUE	Bycatch per unit of effort
CFR	Code of Federal Regulations
DMLs	Dolphin Mortality Limits
DPCIA	Dolphin Protection Consumer Information Act
DSB	Dispute Settlement Body
DSU	Understanding on Rules and Procedures Governing the Settlement of Disputes
EEZs	Exclusive Economic Zones
EII	Earth Island Institute
EPO	Eastern Pacific Ocean
ETAO	Eastern Tropical Atlantic Ocean
ETP	Eastern Tropical Pacific
FAD	Fish Aggregating Device
FAO	United Nations Food and Agriculture Organization
Form 370	NOAA Fisheries Certificate of Origin (Form 370)
GAO	Government Accountability Office
GATT 1994	General Agreement on Tariffs and Trade 1994
Hogarth ruling	*Earth Island Institute et al v William T. Hogarth*, 494 F.3d 757 (9th Cir. 2007)
ICCAT	International Commission for the Conservation of Atlantic Tunas
IATTC	Inter-American Tropical Tuna Commission
IO	Indian Ocean
IOTC	Indian Ocean Tuna Commission
IDCP	International Dolphin Conservation Program
IUU	Illegal, Unreported and Unregulated Fishing
MMPA	Marine Mammal Protection Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
PBR	Potential Biological Removal
RFMOs	Regional Fishery Management Organizations
TBT Agreement	Agreement on Technical Barriers to Trade
TTF	Tuna Tracking Form
TTVP	Tuna Tracking and Verification Program
USC	United States Code
Vienna Convention	Vienna Convention on the Law of Treaties, Done at Vienna, 23 May 1969, 1155 UNTS 331; 8 International Legal Materials 679
WCPFC	Western and Central Pacific Fisheries Commission
WCPO	Western and Central Pacific Ocean
WIO	Western Indian Ocean
WTO	World Trade Organization

1 INTRODUCTION

1.1 Complaint by the United States

1.1.1 Establishment and composition of the Panel requested by the United States

1.1. On 11 April 2016, the United States requested the establishment of a panel pursuant to Article 21.5 of the *Understanding on Rules and Procedures Governing the Settlement of Disputes* (DSU), with standard terms of reference[1], with respect to certain measures concerning the importation, marketing, and sale of tuna and tuna products, as further described in Section 2.1. At its meeting on 9 May 2016, the Dispute Settlement Body (DSB) referred this dispute to the original panel, if possible, in accordance with Article 21.5 of the DSU.[2]

1.2. The Panel's terms of reference are the following:

> To examine, in the light of the relevant provisions of the covered agreements cited by the parties to the dispute, the matter referred to the DSB by the United States in document WT/DS381/32 and to make such findings as will assist the DSB in making the recommendations or in giving the rulings provided for in those agreements.[3]

1.3. Due to the unavailability of the chairperson of the original panel, the parties agreed on a replacement. The Panel was composed on 27 May 2016 as follows:

Chairperson:	Stefán Haukur Jóhannesson
Members:	Mary Elizabeth Chelliah Franz Perrez

1.4. Australia, Brazil, Canada, China, Ecuador, the European Union, Guatemala, India, Japan, Korea, New Zealand, and Norway notified their interest in participating in the Panel proceedings as third parties.

1.2 Complaint by Mexico

1.2.1 Request for consultations

1.5. On 13 May 2016, Mexico requested consultations with the United States pursuant to Articles 4 and 21.5 of the DSU, Article 14 of the *Agreement on Technical Barriers to Trade* (TBT Agreement), and Article XXII of the *General Agreement on Tariffs and Trade 1994* (GATT 1994) with respect to certain measures concerning the importation, marketing, and sale of tuna and tuna products.[4]

1.6. Consultations were held on 2 June 2016. However, the parties were unable to resolve their dispute.

1.2.2 Establishment and composition of the Panel requested by Mexico

1.7. On 9 June 2016, Mexico requested the establishment of a panel pursuant to Articles 6 and 21.5 of the DSU, Article 14 of the TBT Agreement, and Article XXIII of the GATT 1994, with standard terms of reference.[5] At its meeting on 22 June 2016, the DSB referred this dispute to the original panel, if possible, in accordance with Article 21.5 of the DSU.[6]

1.8. The Panel's terms of reference are the following:

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[1] WT/DS381/32.
[2] See WT/DS381/37.
[3] WT/DS381/37.
[4] See WT/DS381/36 and WT/DS381/36/Corr.1.
[5] WT/DS381/38.
[6] WT/DS381/39.

> To examine, in the light of the relevant provisions of the covered agreements cited by the parties to the dispute, the matter referred to the DSB by Mexico in document WT/DS381/38 and to make such findings as will assist the DSB in making the recommendations or in giving the rulings provided for in those agreements.[7]

1.9. Due to the unavailability of the chairperson of the original panel, the parties agreed on a replacement. The Panel was composed on 11 July 2016 as follows:

Chairperson:	Stefán Haukur Jóhannesson
Members:	Mary Elizabeth Chelliah Franz Perrez

1.10. Australia, Brazil, Canada, China, Ecuador, the European Union, Guatemala, Japan, Korea, New Zealand, and Norway notified their interest in participating in the Panel proceedings as third parties.

1.3 Panel proceedings

1.3.1 General

1.11. After consulting with the parties, the Panel in the proceedings brought by the United States adopted its Working Procedures and timetable on 4 July 2016. After further consultations with the parties, on 29 July 2016, the Panels in both the proceedings brought by the United States and the proceedings brought by Mexico adopted a harmonized timetable for the proceedings. Following further consultations with the parties, the Panels modified their harmonized timetable on 10 August 2016 to extend the deadline for written submissions from third parties.

1.12. On 3 August 2016, the Panel in the proceedings brought by Mexico adopted its Working Procedures.[8] On the same day, the Panel in the proceedings brought by the United States modified its Working Procedures[9] to harmonize them with the Working Procedures adopted by the Panel in the proceedings brought by Mexico.

1.13. The Panels held a consolidated substantive meeting with the parties on 24 and 25 January 2017. Because different Members reserved their rights as third parties in the proceedings brought by the United States, on the one hand, and Mexico, on the other hand, two third party sessions were held on 25 January 2017. On 27 February 2017, the Panels issued the descriptive part of their Reports to the parties. The Panels issued their Interim Reports to the parties on 9 June 2017, and their Final Reports to the parties on 12 July 2017.

1.3.2 Procedures for a partially open meeting

1.14. On 10 June 2016, at the organizational meeting of the Panel in the proceedings brought by the United States, the United States proposed a change to the working procedures to allow the Panel's substantive meeting to be publicly observed or, if Mexico did not agree to this, to allow a party to request a partially open meeting, whereby that party's statements during the Panel's meeting with the parties could be viewed by the public, either simultaneously or through a delayed broadcast, whereas statements of a party that wished to maintain the confidentiality of these statements could not be so viewed.

1.15. On 4 July 2016, the Panel in the proceedings brought by the United States sought the views of the third parties on this procedural issue. Nine third parties provided their views. Six third parties opposed the United States' request, whereas three did not.

1.16. On 14 July 2016, at the organizational meeting of the Panel in the proceedings brought by Mexico, the United States made the same proposal for a change to the working procedures.

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[7] WT/DS381/39.
[8] See the Panel's Working Procedures (*Article 21.5 – Mexico II*) in Annex A-2.
[9] See the Panel's Working Procedures (*Article 21.5 – United States*) in Annex A-1.

1.17. On 29 July 2016, through a joint communication with the arbitrator acting under Article 22.6 of the DSU in the same dispute, the Panels informed the parties that they considered themselves to have the authority to authorize the United States to lift the confidentiality of its statements at the substantive meeting with the parties. They further indicated that the partial public observation of the meeting would be through delayed viewing (delayed closed-circuit television broadcasting), to ensure that the confidentiality of Mexico's statements would not be breached. The parties were informed that the reasons supporting this determination would be elaborated by the Panels in their Reports.[10]

1.18. On 13 December 2016, pursuant to paragraph 3 of the Panels' Working Procedures, the United States requested that the Panels authorize it to lift the confidentiality of its statements made during the Panels' meeting with the parties. The United States therefore requested the Panels to adopt additional working procedures that would authorize each party and third party to lift the confidentiality of its statements made during the Panels' meeting, including its answers to questions. Mexico objected to the United States' request, arguing that the Panels could only open their substantive meetings with the parties to public viewing with the consent of both parties.

1.19. On 22 December 2016, after consulting with the parties, the Panels adopted Additional Working Procedures on Partially Open Meetings (Additional Working Procedures).[11] On the same day, the Panels sent a copy of the Additional Working Procedures to the parties and the third parties, and indicated, pursuant to paragraphs 3.1 and 4.1 of the Additional Working Procedures, that the deadline for a party or third party to indicate its intention to participate in the Panels' meetings with the parties and third parties as a disclosing party or a disclosing third party would be 9 January 2017. In its request of 13 December 2016, the United States had indicated its intention to participate in the Panels' meetings as a disclosing party. Additionally, on 9 January 2017, Australia, Canada, the European Union, Japan, Korea, Norway, and New Zealand indicated their intention to participate in the Panels' meetings as disclosing third parties.

1.20. As noted above, the Panels met with the parties and third parties on 24 and 25 January 2017. The statements[12] of the United States and disclosing third parties were video-recorded, pursuant to the Additional Working Procedures. Following the meeting, the Panels consulted with the parties and third parties and redacted the video-recording to ensure that the positions of Mexico and non-disclosing third parties were not inadvertently contained in the final version of the video-recording. At Mexico's request, the Panels held a preview screening of the redacted video-recording for the parties on 8 March 2017, which both parties attended. The delayed public broadcast was held at the WTO Headquarters in Geneva on 24 March 2017.

1.21. Further discussion of the Panels' Additional Working Procedures, including the Panels' reasons for granting the United States' request to adopt such procedures, is provided in Section 7.2 of these Reports.

1.3.3 Additional working procedures on Business Confidential Information (BCI)

1.22. At the Panels' organizational meeting with the parties, both parties requested that the Panels adopt additional working procedures to protect the confidentiality of BCI submitted in the course of the proceedings. The Panels adopted such additional working procedures on 4 July 2016 (in the proceedings brought by the United States) and 3 August 2016 (in the proceedings brought by Mexico). Both Panels adopted identical additional working procedures.

1.23. The Additional Working Procedures of the Panels Concerning Business Confidential Information (BCI Working Procedures) are annexed to these Reports.[13]

[10] Panels' and Arbitrator's letter of 29 July 2016.
[11] Annex A-4.
[12] As defined in paragraph 1.1(e) of the Additional Working Procedures on Partially Open Meetings.
[13] Annex A-3.

2 FACTUAL ASPECTS

2.1 The measure at issue

2.1. Both the proceedings brought by the United States and those brought by Mexico concern the United States' labelling regime for dolphin-safe tuna products[14] (the 2016 Tuna Measure). Both parties consider that the 2016 Tuna Measure comprises the following instruments:

a. Section 1385 (Dolphin Protection Consumer Information Act), as contained in Subchapter II (Conservation and Protection of Marine Mammals) of Chapter 31 (Marine Mammal Protection), in Title 16 of the United States Code (the DPCIA);

b. Code of Federal Regulations, Title 50, Part 216, Subpart H (Dolphin Safe Tuna Labeling), as amended by the Enhanced Document Requirements to Support Use of the Dolphin Safe Label on Tuna Products, 78 Fed. Reg. 40,997 (July 9, 2013) (the 2013 Rule) and the Enhanced Document Requirements and Captain Training Requirements to Support Use of the Dolphin Safe Label on Tuna Products, 81 Fed. Reg. 15,444 (March 23, 2016) (the 2016 Rule) (collectively, the 2016 implementing regulations); and

c. The court ruling in *Earth Island Institute v. Hogarth*, 494 F.3d 757 (9th Cir. 2007) (the Hogarth ruling).

2.2. Mexico argues that the Measure also includes the following:

a. Any implementing guidance, directives, policy announcements or any other document issued in relation to instruments (a) through (c) above, including any modifications or amendments in relation to those instruments.

2.3. The Panels' findings on the scope of the measure at issue are contained in Section 7.4.1 of these Reports.

2.4. The 2016 Tuna Measure specifies the conditions to be fulfilled in order for tuna products sold in the United States to be labelled "dolphin-safe" or to make similar claims on their labels. Use of the term "dolphin-safe", or any other term that claims or suggests that the tuna contained in a tuna product was harvested using a method of fishing that is not harmful to dolphins, is prohibited if the tuna contained in the product was not harvested and processed in compliance with the applicable labelling conditions.[15] A more detailed description of the applicable labelling requirements is contained in the Section 7.4 of these Reports.

3 PARTIES' REQUESTS FOR FINDINGS AND RECOMMENDATIONS

3.1. The United States requests the Panels in both Article 21.5 proceedings to find that the United States has brought itself into compliance with the DSB recommendations and rulings and that the 2016 Tuna Measure is consistent with Article 2.1 of the TBT Agreement and justified under Article XX of the GATT 1994.[16]

3.2. Mexico requests that the Panels in both proceedings reject the United States' claims in their entirety and find that the 2016 Tuna Measure is inconsistent with Article 2.1 of the TBT Agreement

[14] The Dolphin Protection Consumer Information Act of 1990, Section 1385(c)(5), defines the term "tuna product" as a "food item which contains tuna and which has been processed for retail sale, except perishable sandwiches, salads, or other products with a shelf life of less than 3 days" (Exhibits MEX-01 and USA-01). Additionally, for purposes of the *United States Code of Federal Regulations*, Title 50, Section 216, "tuna product" means "any food product processed for retail sale and intended for human or animal consumption" containing one of the species of tuna listed in Section 216.24(f)(2)(i) and (ii) of the *United States Code of Federal Regulations*, Title 50, but excluding "perishable items with a shelf life of less than 3 days" (Exhibits MEX-02 and USA-02).

[15] Section 1385(d) of the DPCIA, (Exhibits MEX-01 and USA-01); and Section 216.91(a) of the 2016 implementing regulations, (Exhibits MEX-02 and USA-02).

[16] United States' first written submission, para. 224; second written submission, para. 180; third written submission, para. 151.

and Articles I:1 and III:4 of the GATT 1994, and cannot be justified under Article XX of the GATT 1994.[17]

4 ARGUMENTS OF THE PARTIES

4.1. The arguments of the parties are reflected in their executive summaries, provided to the Panels in accordance with paragraph 18 of the Working Procedures adopted by the Panels (see Annexes B-1 and B-2).

5 ARGUMENTS OF THE THIRD PARTIES

5.1. The arguments of Australia, Brazil, Canada, the European Union, Japan, New Zealand, and Norway are reflected in their executive summaries, provided in accordance with paragraph 19 of the Working Procedures adopted by the Panels (see Annexes C-1, C-2, C-3, C-4, C-5, C-6, and C 7). Additionally, Ecuador requested that the final written versions of its oral statements at the Panels' third party sessions be treated as constituting its executive summary (see Annex C-8). China, Guatemala, India, and Korea did not submit written or oral arguments to the Panels.

6 INTERIM REVIEW

6.1. On 15 April 2017, the Panels issued their Interim Reports to the parties. On 20 June 2017, Mexico and the United States each submitted written requests for the Panels to review aspects of the Interim Reports. On 27 June 2017, both parties submitted comments on the other's requests for review. Neither party requested an interim review meeting.

6.2. In accordance with Article 15.3 of the DSU, this section of the Panels' Reports sets out the Panels' responses to the parties' requests made at the interim review stage. The numbering of some of the paragraphs and footnotes in the Final Reports has changed from the numbering in the Interim Reports. The discussion below refers to the numbering in the Final Reports and, where it differs, includes the corresponding numbering in the Interim Reports (in brackets).

6.3. The parties' requests for substantive modifications are discussed below. In addition to the requests discussed below, corrections were made for typographical and other non-substantive errors in the Reports, including those identified by the parties. This section of the Panels' Reports constitutes an integral part of the Panels' findings.

6.1 Requests from the United States

6.4. The United States requests, with respect to paragraphs 7.3, 7.48, 7.56, 7.613 (paragraph 7.611 in the Interim Reports) and 7.636 (paragraph 7.634 in the Interim Reports) that we replace the term "CFR" with the term "implementing regulations". According to the United States, this change would increase the clarity and consistency of the Reports, as the term "CFR" could be misunderstood as referring to the entire US Code of Federal Regulations. Mexico makes no comments on this request. We agree with the United States that the term "implementing regulations" is clearer than the term "CFR", and accordingly have made the changes requested.

6.5. The United States requests that we delete a statement contained in paragraph 7.6 that refers to the possibility, under Article 17 of the DSU, of appealing these Panel Reports. According to the United States, because the provisions of the DSU cited in the statement in question do not address the scope of appeal proceedings, the statement is not necessary to assist the DSB in making the recommendations provided for in the covered agreements, and could itself create an issue for appeal, which would not contribute to finding a positive solution to the dispute. Mexico asks us to reject this request. According to Mexico, the United States' request would edit the reasoning of the Panels and interrupt the logic of the paragraph. In our view, it is important to recall in the context of the statement in question that appeal from panel reports is possible under the DSU. However, to avoid any misunderstanding, we have modified the statement in question to make clear that we take no position on the scope of appeal proceedings.

6.6. The United States requests that we insert additional footnote references in paragraphs 7.45, 7.63, 7.64, 7.66, 7.208 (paragraph 7.207 in the Interim Reports), and 7.259 (paragraph 7.258 in

[17] Mexico's first written submission, para. 340; second written submission, para. 117.

the Interim Reports). According to the United States, these additional citations would further clarify the basis of the Panels' reasoning. Mexico asks the Panels to reject the United States' request in respect of paragraph 7.45, and states that it objects to all edits proposed by the United States that would modify the Panels' descriptions or characterizations of Mexico's evidence. With respect to paragraph 7.63, Mexico argues that the citation requested by the United States would be superfluous, as the paragraph already contains a footnote reference. Finally, with respect to paragraphs 7.64 and 7.66, Mexico objects to the United States' requests on the basis that these requests constitute an attempt by the United States to instruct the Panels as to the evidence on which they should rely for their findings. We note, however, that Mexico does not argue that the additional footnote references requested by the United States are incorrect. We also note that Mexico did not make any comments concerning the United States' requests in respect of paragraphs 7.208 or 7.259. In our view, the footnote references requested by the United States in respect of paragraphs 7.45, 7.63, 7.64, 7.66, 7.208, and 7.259 are accurate, and their addition clarifies the basis of our reasoning. The addition of the references in no way changes the Panels' reasoning or "instructs" the Panels as to which evidence they should use or how that evidence should be interpreted. We have therefore made the requested additions by inserting footnotes 75, 116, 118, 119, 123, 124, 351, and 422.

6.7. The United States requests that, in paragraph 7.56 we delete the reference to the "original" Tuna Measure to enhance the accuracy of the text. Mexico does not comment on this request. We accept this request, which increases the accuracy of the paragraph in question.

6.8. The United States requests that we modify certain language in paragraph 7.137 which concerns the relationship between the DSU Article 21.5 proceedings brought by the United States and those brought by Mexico. According to the United States, the language in the mentioned paragraph is not completely accurate, because it fails to fully reflect certain differences in the positions of the parties in the two proceedings, and overstates the extent of the overlap between the two proceedings. Thus, the United States proposes alternative language to more accurately reflect the relationship between the two proceedings. Mexico makes no comment on this request. In our view, the alternative language proposed by the United States accurately reflects the relationship between the two proceedings and enhances the clarity of the paragraph in question. Accordingly, we have made the requested modification.

6.9. The United States requests that we modify certain language in paragraph 7.151 which concerns our decision not to have recourse to external experts to assist us in understanding the evidence on the record. According to the United States, the language in the third sentence of this paragraph could be misread to suggest that the role of experts in WTO dispute settlement proceedings could be to provide evidence to support or refute the claims of one or other of the parties, rather than to assist a panel in understanding the evidence that the parties have presented. The United States requests that we delete this sentence and add a new sentence at the end of the paragraph noting our decision not to have recourse to experts. Mexico argues that the requested change would interrupt the logic of the paragraph in question. We are not convinced that the identified language could be misread in the way suggested by the United States. Therefore, in our view, the deletion requested by the United States is not necessary. Nevertheless, in the interest of clarity, we have modified the language of the third sentence of paragraph 7.151 in order to make clear that we could only have had recourse to experts for the purpose of enhancing our understanding of the evidence presented by the parties.

6.10. With respect to footnote 368 in paragraph 7.222 (footnote 352 in the Interim Reports), the United States requests that the figures relating to dolphin mortalities and serious injuries be corrected because there was a typographical error in the underlying footnote 12 of the United States' comments on Mexico's response to Panels' question 57. Mexico does not comment on this request. We have made the requested modification to ensure the accuracy of our findings.

6.11. The United States requests the Panels to modify the text of footnote 385 in paragraph 7.230 (footnote 369 in the Interim Reports) in order to ensure that it adequately reflects the United States' arguments. Mexico does not comment on this request. Given that this request relates to the Panels' description of the United States' own arguments, we accept the request and have made the requested modification in order to better reflect the United States' position.

6.12. The United States requests that, in paragraph 7.271 (paragraph 7.270 in the Interim Reports) we add the words "on average" to qualify the sentence that reads "…every dolphin set, by

its nature, poses a risk to several hundred dolphins". According to the United States, the addition of this qualification would increase the accuracy of the sentence, as well as its consistency with other sentences on the same issue in other parts of the Reports. Mexico makes no comment on this request. We agree that the addition of this qualification increases the accuracy and consistency of the sentence, and have therefore inserted the requested words.

6.13. The United States requests that, with respect to paragraph 7.292 (paragraph 7.291 in the Interim Reports) we modify our description of Exhibit MEX-53 to more accurately reflect its contents. The United States proposes alternative language that, in its view, better captures the finding of that Exhibit. Mexico argues that this request should be rejected, because it attempts to edit and re-word the reasoning of the Panels. We consider that the alternative language proposed by the United States accurately reflects the contents of the relevant Exhibit, and have therefore made the requested modification.

6.14. The United States requests, with respect to paragraph 7.311 (paragraph 7.310 in the Interim Reports) that we modify our description of the information contained in Exhibit USA-44 to more accurately reflect its contents. The United States proposes alternative language that, in its view, better captures the finding of that Exhibit. Mexico argues that this request should be rejected, since it attempts to modify the Panels' interpretation of the evidence. We consider that the alternative language proposed by the United States accurately reflects the contents of the relevant Exhibit. In our view, the proposed wording does not change the Panels' interpretation of the evidence but rather explains the interpretation in a clearer way. Accordingly, we have made the requested modification.

6.15. With respect to paragraph 7.321 (paragraph 7.320 in the Interim Reports), the United States requests that the figure "397" in the table in this paragraph be corrected to "144". The United States argues that, as noted in the last sentence of this paragraph, the figure "397", which was submitted in the United States' first written submission, was subsequently corrected to "144" through Exhibit USA-179 Rev. The United States therefore requests this modification to be reflected in the table in paragraph 7.321. Mexico opposes the United States' request, arguing that paragraph 7.321 contains an exact copy of the information in the table contained in paragraph 51 of the United States' first written submission. We note that, as the United States argues, this correction was introduced in Exhibit USA-179 Rev. after the United States' first written submission. Therefore, we accept the United States' request and have made the requested modification in order to ensure the accuracy of our findings. We have also introduced footnote 545 explaining the modification that we have made and the reasons therefor.

6.16. With respect to paragraph 7.344 (paragraph 7.343 in the Interim Reports), the United States' requests us to make modifications to the final sentence of this paragraph in order to clarify that, except for 2014, the number of dolphins referred to represents the number of dolphins released alive in observed sets, and thus represents the maximum possible number of observed serious injuries, not the number of serious injuries actually documented. Mexico requests that the proposed edits to this paragraph be rejected on the ground that the United States' proposal attempts to modify the Panels' interpretation of the evidence. We note that the tables presented in Exhibit USA-179 Rev., in particular the ones concerning purse seine fishing without setting on dolphins in the WCPO, contain data either on direct dolphin mortality or on events in which dolphins were captured but subsequently released alive. Similarly, we note that the numbers discussed in the last sentence of paragraph 7.344, which relate to dolphins released alive, represent the upper limit of the serious injuries that could have been observed. For these reasons, and in order to further clarify our findings, we accept the United States' request, and have made the requested modification to the text of the last sentence of the paragraph at issue.

6.17. With respect to paragraph 7.365 (paragraph 7.364 in the Interim Reports), the United States requests that we modify the first sentence of this paragraph in order to clarify that the rates referred to are based on a representative subset of all sets in the fishery. Mexico opposes the United States' request, arguing that the proposed modification attempts to edit and re-word the reasoning of the Panels. The United States' request is to add the phrase "data shows that" to the part of the first sentence of the mentioned paragraph where the Panels discuss the evidence on the record, and, in our view, this is not an attempt to edit or re-word our reasoning. We thus accept the United States' request, and have made the requested modification.

6.18. With respect to paragraph 7.385 (paragraph 7.384 in the Interim Reports), the United States requests that, for reasons of clarity and consistency, the first sentence of this paragraph be modified. Mexico does not comment on this request. We note that the proposed modification improves the quality of the text as it gives the equivalent, on a per 1,000 sets basis, of the numbers presented in the paragraph. For this reason, we accept this request, and have made the requested modification.

6.19. With respect to paragraphs 7.386 and 7.399 (paragraphs 7.385 and 7.398 in the Interim Reports), the United States request that a footnote be added at the end of these paragraphs for the purposes of adding clarity to the text. Mexico opposes the United States' request, arguing that the proposed citations to a Mexican submission do not support the sentences to which the United States proposes adding them. Mexico also contends that granting this request would amount to modifying the Panels' characterization of Mexico's arguments. Given that the proposed modification concerns our description of Mexico's arguments, and that Mexico disagrees with it, we decline the United States' request.

6.20. With respect to paragraphs 7.390 and 7.396 (pargraphs 7.389 and 7.395 in the Interim Reports), the United States requests the Panels to modify the last sentences of these paragraphs to make it clear that the numbers given therein refer to potential serious injuries, and not serious injuries actually documented. Mexico opposes this request, arguing that the proposed modification attempts to edit and re-word the reasoning of the Panels. We disagree with Mexico's argument since the requested modification in no way affects our reasoning. We therefore accept the United States' request, and have modified the last sentences of paragraphs 7.390 and 7.396 in order to clarify the basis of our findings.

6.21. With respect to paragraph 7.394 (paragraph 7.393 in the Interim Reports), the United States requests that we add a footnote reference at the end of the last sentence of this paragraph, to provide further clarity. Mexico argues that the United States' request should be rejected because the proposed text attempts to edit the reasoning of the Panels by adding the phrase "showing no bycatch of marine mammals", which represents the United States' interpretation of the relevant exhibit. We agree with the United States that the requested footnote adds clarity to the text, and have added footnote 657 to the text of the paragraph at issue. In doing so, however, we did not include the phrase "showing no bycatch of marine mammals" suggested by the United States in parenthesis.

6.22. With respect to paragraph 7.400 (paragraph 7.399 in the Interim Reports), the United States requests us to revise the last sentence of this paragraph to clarify the relationship between the first and second clauses. Mexico argues that the proposed modification should be rejected because the United States' proposal attempts to edit and re-word the reasoning of the Panels. In our view, the proposed textual modification improves and clarifies the text and does not entail any change in the Panels' reasoning. We thus accept the United States' request and have modified the text of paragraph 7.400.

6.23. The United States requests that we add a parenthetical to footnote 685 to paragraph 7.408 (footnote 664 to paragraph 7.407 in the Interim Reports), which addresses an argument of the United States concerning the direct dolphin mortalities caused by gillnet fishing. According to the United States, the parenthetical would more clearly spell out one element of its argument which was not expressly included in the mentioned footnote, namely that "gillnet fishing does not, necessarily or as a general matter, cause direct dolphin mortalities at a rate on par with that caused by dolphin sets in the ETP". Mexico has not commented on this request by the United States. We agree with the United States that the addition of this parenthetical provides more clarity as to the argument made by the United States, and have therefore made the requested modification.

6.24. The United States requests that we substitute the phrase "at the same level of risks to dolphins as in the ETP" in paragraph 7.417 (paragraph 7.416 in the Interim Reports) with the phrase "under the determination provisions" to clarify that the "regular and significant mortality or serious injury" standard does not encompass the overall level of "risks" to dolphins in the ETP. Mexico disagrees with the United States' request. According to Mexico, the United States' request attempts to edit and re-word the reasoning of the Panels. Mexico further points out that the statement, as drafted in the Interim Reports, finds support in the United States' second written submission, paragraph 157, cited in footnote 714 of the Reports. We have made the requested

modification to paragraph 7.417 because it serves to clarify our reasoning and avoids potential confusion.

6.25. The United States requests the Panels to make certain modifications and insert two footnote references to paragraph 7.454 (paragraph 7.453 in the Interim Reports) in order to clarify the basis for our findings regarding the potential stress effects dolphins might suffer as a consequence of entanglement in fishing nets. Mexico argues that the United States' proposal attempts to modify the Panels' interpretation of the evidence and should therefore be rejected. We disagree with Mexico's view that the United States' request represents an attempt to modify our interpretation of the evidence, because the requested modification would not, in our view, modify our reasoning or add a new argument to the paragraph. We have therefore modified paragraph 7.454 and inserted footnotes 814 and 815 as requested by the United States in order to enhance the clarity of our findings.

6.26. The United States requests that we add a concluding paragraph at the end of section 7.7.2.3.3 summarizing our findings concerning both the observable and unobservable harms to dolphins caused by gillnet fishing. According to the United States, such a paragraph would ensure consistency with the structure of the sections of the Reports containing our findings regarding other fishing methods. To that end, the United States proposes a detailed concluding paragraph drawing from different parts of section 7.7.2.3.3. Mexico objects to the United States' proposal on the ground that it would amount to the United States being allowed to write the Panels' findings or reasoning. We note that we summarize our findings regarding the observable and unobservable harms caused to dolphins by gillnet fishing in paragraphs 7.444 (paragraph 7.443 in the Interim Reports) and 7.456 (paragraph 7.455 in the Interim Reports) of the Reports, respectively. Nonetheless, we are of the view that adding an overall conclusion paragraph at the end of Section 7.7.2.3.3 concerning gillnet fishing would add clarity to the text of the Reports. We have therefore inserted paragraph 7.457 for this purpose. In drafting that paragraph, however, we have modified the language proposed by the United States, so as to ensure consistency with the analogous sections in the Reports concerning other fishing methods.

6.27. With respect to the heading of the fifth column in the last table in paragraph 7.469 (paragraph 7.467 in the Interim Reports), as well as the texts of paragraphs 7.470 and 7.523 (paragraphs 7.468 and 7.521 in the Interim Reports), the United States requests the Panels to replace the references to dolphin mortality per set in the Australia Eastern Tuna and Billfish Longline fishery with the words "possible dolphin mortalities" or, alternately, "dolphin captures". This is because, according to the United States, the available per set data for this particular fishery refers to dolphin captures, but not necessarily dolphin mortalities. Mexico requests the Panels to reject the United States' request on the ground that it amounts to revising or adding to the Panels' factual findings by arguing that the "capture" of a dolphin by hooking it and pulling it onboard should not be counted as mortality.

6.28. We first note that the table heading in the Interim Reports referred to by the United States was reproduced directly from Exhibit USA-179 Rev. We further note that the table contained in Exhibit USA-179 Rev. indicates that the data under the heading "Mortality per 1,000 Sets", as it pertains to the Australia Eastern Tuna and Billfish Longline fishery, is an estimate from the dolphin captures in longline hooks, by including the word "est." after each data point and by explaining what "est." means in footnote 5 of the mentioned Exhibit. We also note that in paragraph 58 of its first written submission, the United States explains that, for this particular fishery, the mortality data provided by the United States in connection with the mentioned submission is based on the total number of dolphins captured. It is therefore clear that the heading of the fifth column in the last table in paragraph 7.469, as well as the texts of paragraphs 7.470 and 7.523 of our Reports, should be modified to reflect this fact. To this end, we have added the word "possible" before "mortality" in the heading of the fifth column in the last table in paragraph 7.469 and before "dolphin mortalities" in paragraphs 7.470 and 7.523.

6.29. The United States requests the Panels to modify the text of the third sentence in paragraph 7.475 of these Reports (paragraph 7.473 in the Interim Reports) to clarify it, and to insert a footnote to this sentence in order to explain the basis of the statement that some longline fisheries present no known risk of observable harm to dolphins. Mexico contends that the United States should not instruct the Panels regarding the evidence on which they should base their findings. In our view, neither of the two requests from the United States modifies the evidence on which we base our findings or our reasoning set out in paragraph 7.475 We consider that both aspects of the

United States' request serve to improve the quality of the text of paragraph 7.475 We have thus made the textual modifications requested by the United States and inserted footnote 857.

6.30. With respect to paragraph 7.541 (paragraph 7.539 in the Interim Reports), the United States requests that we add certain language to the third sentence of the paragraph in order to clarify and ensure the accuracy of the figures relating to the WCPO purse seine fishery. Mexico does not comment on this request. In our view, the proposed language improves the quality of the text by clarifying that the number mentioned in this paragraph is an annual average on a per 1,000 sets basis. We thus accept the United States' request, and have modified the third sentence of the paragraph at issue.

6.31. The United States requests that we insert additional footnote references in paragraphs 7.683 (paragraph 7.681 in the Interim Reports) and 7.698 (paragraph 7.696 in the Interim Reports). The references proposed by the United States include citations followed by bracketed descriptions of the exhibits referenced in the citations (for example, "Dolphin Mortalities to ETP Dolphin Sets and in Other Fisheries" (Exhibit USA-111) (showing that the ETP benchmark, i.e. the level of per set mortalities caused by dolphin sets in the ETP between 1997 and 2015 was 0.1265 dolphin mortalities per set)"). According to the United States, the addition of these footnote references would more completely reflect the arguments of the United States. Mexico makes no comment regarding the United States' request in respect of paragraph 7.683. Regarding the United States' request in respect of paragraph 7.698, Mexico argues that this request should be rejected because it is an attempt to instruct the Panels as to the evidence on which they should base their findings. We agree with the United States that clarity and completeness is enhanced by adding the citations indicated by the United States in respect of both paragraphs 7.698 and 7.683. Accordingly, we have inserted additional references in footnotes 1176 and 1177 and added a new footnote 1195. Concerning Mexico's argument regarding paragraph 7.698, we do not consider that the United States' request "instructs" us as to the evidence on which we should rely. Rather, the reference clarifies the basis of our reasoning. However, although we accept the United States' requests in respect of paragraphs 7.698 and 7.683, in the interests of style and consistency, we do not consider it necessary to add the bracketed descriptions of the exhibits referenced in the citations, as requested by the United States. Having said that, it would in our view aid reader comprehension if the numerical value of the benchmark, which the United States proposes to add in brackets in the additional footnote references, were included in the body text of the paragraphs in question. Accordingly, at the end of the last sentence of paragraph 7.683, and at the end of the second sentence of paragraph 7.698, we have inserted the words "which the United States calculates as 0.1265 mortalities per set".

6.2 Requests from Mexico

6.32. With respect to paragraph 7.46 Mexico requests that the Panels delete their statement that Mexico did not respond to the United States' argument that Mexico's allegations concerning pressure allegedly applied by the United States to certain US tuna retailers was outside the Panels' terms of the reference. According to Mexico, Mexico was not afforded an opportunity by the Panels to address this issue. Mexico suggests that the Panels did not include any question about the terms of reference in their post-hearing questions. The United States responds that Mexico's request is based on an incorrect premise, since Mexico did have an opportunity to comment on this issue. We note that, contrary to Mexico's suggestion, the Panels did indeed ask Mexico a question about terms of reference following the Panels' joint meetings with the parties. Question No. 72 to Mexico explicitly ask Mexico whether "such alleged action is within the Panels' terms of reference". In its response to this question, Mexico did not respond to this aspect of the Panels' question. Moreover, Mexico had the opportunity to comment on the United States' response to a question from the Panels on precisely this issue, and chose not to do so.[18] Accordingly, we reject Mexico's request and retain the accurate statement that Mexico did not respond to this argument.

6.33. With respect to paragraph 7.60 which contains a description of the AIDCP Tracking and Verification System, Mexico requests that we delete the sentence "However, it does not provide specific legal requirements as to audits or inter-party co-operation". According to Mexico, this statement is inaccurate, and may be read as suggesting that audits and inter-party cooperation have not been implemented under the AIDCP system. Mexico also points to evidence on the record

[18] Panels' question No. 32 ("Please respond to Mexico's argument, in paragraph 149 of its first written submission, regarding commitments by retailers not to purchase Mexican tuna products"); Mexico's comments on the United States' response to Panels' question No. 32, para. 70.

showing that cooperation does occur in the context or under the auspices of the AIDCP. The United States argues that this request should be rejected, since the statement is accurate as drafted by the Panels. We note that the statement to which Mexico objects concerns the apparent absence in the ADICP Tracking and Verification System of any detailed legal requirements concerning audits and inter-party cooperation. The statement says nothing about whether or not parties to the AIDCP, in their own domestic legislation or through arrangements concluded separately from, although in the context of, the AIDCP, do engage in auditing and cooperation. Nevertheless, to avoid confusion, and because we consider that the sentence in question is not essential to the Panels' description, we accept Mexico's request and have deleted the sentence.

6.34. With respect to paragraph 7.64 which contains the Panels' description of the NOAA Tracking and Verification Regime, Mexico argues that the text does not reflect a "key point" made by Mexico, namely, that US agencies lack authority to audit non-US fishing vessels, carrier vessels, and processors. Mexico requests that we therefore add a sentence reflecting this argument. The United States argues that this request should be rejected, first because the paragraph in question is a description of the measure at issue, rather than a summary of Mexico's arguments, second because the scope of the United States' authority is clear from the paragraph as drafted by the Panels, and finally because the issue of the scope of the United States' authority is dealt with in detail at paragraphs 7.633 and 7.675 of these Reports (paragraphs 7.631 and 7.673 in the Interim Reports). We note, however, that the United States does not argue that the statement proposed by Mexico is substantively incorrect. Accordingly, we accept this request and have inserted a statement reflecting Mexico's view, which in our view brings into sharper relief a point that is already reflected in the paragraph as drafted by the Panels.

6.35. With respect to paragraph 7.85 which deals with the Panels' identification of the applicable legal test under Article 2.1 of the TBT Agreement, Mexico argues that the Panels' description omits an important element of the calibration test as described by the Appellate Body, namely, that the calibration analysis must be conducted "taking account of the objectives of the measure". According to Mexico, a reference to this element of the test should be included in the paragraph in question. The United States responds that the sentence as drafted by the Panels is accurate. According to the United States, the sentence as drafted correctly identifies the area of agreement between the parties as to the applicable legal standard, but accepting Mexico's request would lead to this paragraph inaccurately describing the parties as being in agreement on the role that "the objectives of the measure" should play in the calibration analysis when in fact the parties disagree on this point. We note that, as we describe in detail in Section 7.5.2 of our Reports, the Appellate Body used a variety of similar formulations to describe the calibration analysis, only one of which referred to the objectives of the measure. The relevance and meaning of the Appellate Body's reference to the objectives of the measure was a major issue in dispute between the parties. We consider that Mexico's proposed alternative language could mislead the reader into believing that both parties had the same understanding of the relevance and meaning of this formulation, which, as noted above, was not the case. Additionally, we recall that we discuss our view of the meaning and relevance of the Appellate Body's reference to the objectives of the measure, including Mexico's arguments, in detail in paragraphs 7.114 to 7.126 of these Reports. We consider that that discussion is sufficiently detailed, and therefore the addition requested by Mexico is unnecessary, and would not increase either the accuracy or the clarity of the paragraph. Accordingly, we reject Mexico's request.

6.36. With respect to paragraph 7.87 in which the Panels describe Mexico's arguments concerning the applicable legal test under Article 2.1 of the TBT Agreement, Mexico argues that the text, and in particular the reference to "other factors of the even-handedness standard", does not accurately reflect Mexico's position. Mexico requests that the Panels delete this reference and insert alternative text that more closely tracks Mexico's arguments in its written submissions. The United States argues that the paragraph as drafted accurately reflects Mexico's position, since Mexico did refer in its submissions to different "factors" or "elements" of the applicable legal standard. Bearing in mind that this request relates to the Panels' description of Mexico's own arguments, we accept Mexico's request and have made the requested change in order to better reflect Mexico's position.

6.37. With respect to paragraph 7.107 Mexico requests that, in order to more accurately reflect its arguments, we delete the word "legal" from the phrase "Mexico argues that the reliability of the applicable legal systems ...". Mexico argues that it did not use the term "legal" in its submissions, and that this word unduly narrow the scope of the word "systems" in a way that was not intended

by Mexico. The United States makes no comment on this request. Bearing in mind that this request relates to the Panels' description of Mexico's own arguments, we accept Mexico's request and have made the requested change in order to better reflect Mexico's position.

6.38. With respect to paragraph 7.130 which describes Mexico's arguments concerning the relevance of the preamble to the WTO Agreement in the interpretation of the covered agreements, Mexico objects to the Panels' statement that Mexico's argument entails the conclusion that a measure may be found to be inconsistent with a particular provision of the covered agreements "because it does not further one of the goals referenced in the preamble". According to Mexico, this statement does not accurately reflect Mexico's argument, which was that "[m]easures that discriminate in a manner that goes against the objective of sustainable development … can be found to be inconsistent".[19] Mexico therefore requests that this statement be deleted and replaced with alternative language that more accurately reflects Mexico's arguments. The United States makes no comment on this request. We accept Mexico's request in order to better reflect Mexico's argument.

6.39. With regard to paragraph 7.183 (paragraph 7.182 in the Interim Reports), Mexico contends that the paragraph omits key elements of Mexico's argument regarding the US regulations adopted under the Marine Mammal Protection Act, and requests the Panels to make the necessary modifications in order to fully reflect such arguments. Among others, Mexico requests that the Panels use the word "explains", instead of "contends", in characterizing Mexico's description of the regulations, because the United States does not contest the accuracy of Mexico's description. The United States does not object to certain proposed changes to the last sentence of the paragraph at issue but requests the Panels to deny other aspects of Mexico's request. With respect to the proposed changes to the first sentence, the United States requests that the Panels deny Mexico's request, as the text Mexico suggests is inaccurate in that it gives the wrong impression that Mexico's argument was made in response to an argument by the United States. With respect to the proposed changes to the last sentence, the United States contends that Mexico did not argue that "the regulations require the United States to ban seafood imports entirely" from countries that do not "create assessments that estimate population abundance for marine mammal stocks that are killed or seriously injured in their territorial waters". To the contrary, in the view of the United States, the Marine Mammal Protection Act is a fishery-specific, as opposed to country-specific, measure. We note that Mexico's request is composed of two parts, one asking us to include a contextual description of the argument contained in the first sentence of the paragraph at issue, and another requesting further expansion of one of Mexico's arguments in the last sentence of that paragraph. Regarding the first part, we agree with the United States that characterising Mexico's argument as being a response to the United States' argument on the impracticability of collecting information in the context of the PBR methodology is not entirely accurate. Further, we note that, as it stands, the first sentence correctly reflects Mexico's argument. We therefore reject the first part of Mexico's request. Regarding the second part, we agree with Mexico and therefore have modified the last sentence of the paragraph at issue. Finally, we have replaced the word "contends" with "submits".

6.40. Mexico also requests that the Panels introduce a new paragraph following the existing paragraph 7.183 (paragraph 7.182 in the Interim Reports) of the Reports because the Interim Reports omit to mention two of Mexico's arguments regarding the use of PBR, namely, that (i) the United States used the PBR methodology to evaluate the impact of the dolphin encirclement fishing methods on dolphins in the ETP in implementing the Measure, and that (ii) the use of PBR protects smaller dolphin stocks from total extinction in circumstances where a relatively low number of mortalities can erode the ability of members of the stock to reproduce. The United States argues that the addition of these details is unnecessary because the explanation at paragraph 7.175 is sufficient to accurately describe Mexico's arguments concerning PBR. If, however, the Panels decide to include the details requested by Mexico, the United States points out that the place where Mexico requests that this new paragraph be introduced is not appropriate, and that the appropriate place would be in the context of paragraph 7.175 which sets out Mexico's arguments. We agree with Mexico's request and, have included the details of Mexico's arguments in the new paragraph 7.176. We have, however, modified the language proposed by Mexico in drafting this paragraph. In choosing the place of this paragraph, we have taken the United States' comment into account.

[19] Mexico's response to Panels' question No. 84, para. 125.

6.41. Regarding paragraph 7.217 (paragraph 7.216 in the Interim Reports), Mexico argues that this paragraph sets forth the United States' argument regarding the probity of Exhibit USA-179 Rev. but not that of Mexico. Mexico therefore requests that a sentence be added at the end of the paragraph in order to properly describe Mexico's position in this regard. The United States opposes Mexico's request, arguing that this paragraph does not set forth the arguments of either party but rather the Panels' description of Exhibit USA-179 Rev. If Mexico meant to refer to paragraph 7.216 (paragraph 7.215 in the Interim Reports) of the Reports, the United States maintains that that paragraph already addresses, in its second and third sentences, the arguments that Mexico requests the Panels to add. We note that, as the United States argues, paragraph 7.217 contains our description of Exhibits USA-179 and USA-179 Rev., rather than the parties' arguments on those Exhibits. We also note that the comments that Mexico requests us to add to paragraph 7.217 convey Mexico's views on Exhibit USA-179, and not Exhibit USA-179 Rev. We have nevertheless revised the text of paragraph 7.216, where we note the parties' arguments on Exhibits USA-179 and USA-179 Rev., to provide a more thorough description of Mexico's arguments on Exhibit USA-179.

6.42. Mexico requests that the Panels include a new paragraph, before or after paragraph 7.238 (pargraph 7.237 in the Interim Reports), to reflect Mexico's arguments on whether observer coverage of less than 10% provides scientifically valid data. The United States argues that Mexico's proposed new paragraph is unnecessary and inappropriate, as the Interim Reports already fully summarize Mexico's arguments on this issue. We note that the new paragraph requested by Mexico contains arguments whose thrust has already been described in these Reports, such as in paragraph 7.236 (paragraph 7.235 in the Interim Reports). In fact, the proposed new text makes reference to Mexico's interpretation of some exhibits on the record submitted in support of Mexico's main argument that observer coverage of less than 10% does not provide scientifically valid data. We thus reject Mexico's request.

6.43. Regarding paragraph 7.250 (paragraph 7.249 in the Interim Reports), Mexico requests that the Panels modify this paragraph which indicates that Mexico did not submit any arguments regarding the meaning of the terms "observed," "unobserved," "observable," "unobservable," "direct" and "indirect" harms. Mexico argues that it did address this issue, and suggests specific language to reflect this in the paragraph at issue. The United States requests that the Panels deny Mexico's request. The United States recalls that at the hearing, Mexico, in response to this question, stated that it would respond to the question fully in writing, but that subsequently Mexico provided no specific arguments on the matter at issue, nor any reference to statements made at the hearing. We note that although Mexico addressed some of the issues regarding the meaning of the terms mentioned in the paragraph at issue, it also stated that it would "submit more detailed information in [its] written reply". However, in response to Panels' question No. 116, sent to the parties after the Panels' substantive meeting with the parties, asking them to explain their understanding of the terms "direct", "indirect", "observed", "observable", "unobserved" and "unobservable" harms or risks, Mexico did not provide any further elaboration on the conceptual differences between these terms. For these reasons, we have modified the text of paragraph 7.250 to reflect Mexico's statements during the meeting as well as its response to Panels' question no. 116.

6.44. With respect to paragraph 7.276 (paragraph 7.275 in the Interim Reports) which describes Mexico's arguments concerning the ETP large purse seine fishery, Mexico requests that we add certain language to more accurately reflect Mexico's position. In particular, Mexico requests, first, that we clarify that Mexico does not dispute the *recent* data on dolphin mortalities caused by setting on dolphins in the ETP, and second, that we reflect Mexico's argument concerning the impact of the La Jolla Agreement on the mortality levels in that fishery. The United States does not oppose Mexico's request entirely, but does oppose the addition of the word "recent" in the first sentence. According to the United States, this addition would not accurately reflect Mexico's arguments. In our view, the addition of the word "recent" as requested by Mexico is unnecessary, since the sentence already indicates that Mexico does not contest evidence "collected and published by the AIDCP". This reference to the AIDCP makes clear the extent of the evidence that Mexico does not contest, as the AIDCP only came into existence (in its earliest form) following the entry into force of the La Jolla Agreement in 1992. Thus, we do not accept Mexico's request to add the word "recent". However, we accept the remainder of Mexico's request, which accurately describes Mexico's position, except that we have not accepted the word "emphasizes", which Mexico proposes and which could be read as an endorsement by the Panels of Mexico's argument. Such an endorsement would be inappropriate in the context of the paragraph in question, which is

simply a description of Mexico's arguments. We have therefore changed this word to "argues", but have accepted Mexico's request in all other respects.

6.45. With respect to paragraph 7.277 (paragraph 7.276 in the Interim Reports), Mexico requests that we modify the text to more accurately reflect Mexico's arguments concerning the extent of unobservable harms caused by setting on dolphins in the ETP. The United States does not object to this request, but argues that some of the alternative language proposed by Mexico does not accurately reflect Mexico's written submissions. Bearing in mind that this request relates to the Panels' description of Mexico's own arguments, we accept Mexico's request and have made the requested change, which in our view reflects Mexico's position during the proceedings.

6.46. With respect to paragraph 7.284 (paragraph 7.283 in the Interim Reports) in which the Panels note that the World Wildlife Fund (WWF), *inter alia*, has expressed concerns that mortalities in the ETP large purse seine fishery may be understated, Mexico requests the Panels to explicitly recall Mexico's position that the WWF document to which the Panels refer in this paragraph "provides no evidence of mortalities, but simply makes an allegation without support". The United States argues that this request should be rejected for two reasons: first, because the paragraph in question describes the Panels' assessment of the evidence rather than the parties' arguments; and second, because the argument that Mexico requests to be inserted was made by Mexico not in respect of the Exhibit discussed in this paragraph, but in respect of a different WWF document discussed in a subsequent paragraph. Like the United States, we note that the argument that Mexico requests us to include was not made in respect of the Exhibit at issue in this paragraph, but rather in respect of a different WWF document. Additionally, we note that the paragraph in question describes the Panels' own assessment of the evidence having taken into account both parties' arguments, and therefore does not summarize the arguments of either of the parties. We therefore consider that it would be inappropriate to insert a summary of Mexico's argument into this paragraph. In this connection, we recall that panels are not required to explicitly address every argument advanced by the parties to a dispute.[20] Moreover, we recall that a panel does not commit error simply because it declines to accord to the evidence the weight that one of the parties believes should be accorded to it.[21]

6.47. With respect to paragraph 7.289 (paragraph 7.288 in the Interim Reports) Mexico requests that the Panels delete the statement indicating that Mexico did not dispute the existence of unobservable harms in either of the preceding stages of this dispute (i.e. the original proceedings or the first Article 21.5 proceedings). According to Mexico, this statement is incorrect, as Mexico's position has been consistent throughout the different proceedings in this dispute. The United States requests that the Panels retain the language as drafted because, in the United States' view, the language as drafted correctly reflects that Mexico has changed its position over the course of this dispute with regard to the existence of unobservable harms. In our view, the sentence in question is not essential to the Panels' reasoning in the current Article 21.5 proceedings, as the Panels' findings about the existence of unobservable harms are based on the previous panel and Appellate Body reports in this dispute and the evidence submitted by the parties in the present proceedings, and not on whether either of the parties has changed its position regarding such harms during the course of this dispute. Accordingly, we accept this request and have deleted the sentence in question.

6.48. With respect to paragraph 7.295 (paragraph 7.294 in the Interim Reports) Mexico argues that the Panels "decided to agree with the US position" on Exhibit USA-43, but omitted to mention arguments made by Mexico in respect of this Exhibit. Mexico therefore requests that a sentence be added to the end of the paragraph in question recalling Mexico's argument. The United States does not oppose this request, but suggests that the appropriate place to note Mexico's argument would be in the paragraphs describing the parties' arguments, rather than the paragraphs where the Panels explain their reasoning. The United States also requests that, if the Panels accept Mexico's request, they adopt verbs that convey that the sentences reflect Mexico's arguments and not uncontested facts or findings by the Panels. We begin by observing that, in the paragraph in question, the Panels do not "agree" with the United States, as Mexico suggests. Rather, in that paragraph, the Panels record their own assessment of the Exhibit in question, based on their own reading of it and informed by the arguments of both parties. This is entirely in keeping with the Panels' obligation under Article 11 of the DSU to carry out an "objective" assessment of the matter. As this paragraph contains the Panels' own assessment, it does not repeat the arguments

[20] Appellate Body Report, *Dominican Republic — Import and Sale of Cigarettes*, para. 125.
[21] Appellate Body Report, *Chile — Price Band System (Article 21.5 — Argentina),* para. 229.

of either of the parties. We therefore consider that it would be inappropriate to insert a summary of Mexico's argument into this paragraph. Nevertheless, to try to accommodate Mexico's concern, we have added new text to footnote 503 in the paragraph in question, in which we describe Mexico's argument using Mexico's proposed text. We have also provided in the same footnote an explanation as to why we do not accept Mexico's argument concerning the meaning and evidentiary value of Exhibit USA-43.

6.49. With respect to paragraph 7.296 (paragraph 7.295 in the Interim Reports) Mexico argues that the Panels "decided to agree with the US position" on Exhibit USA-45, but omitted to mention arguments made by Mexico in respect of this Exhibit. Mexico therefore requests that a sentence be added to the end of the paragraph in question recalling Mexico's argument. The United States[22] does not oppose this request, but suggests that the appropriate place to note Mexico's argument would be in the paragraphs describing the parties' arguments, rather than the paragraphs where the Panels explain their reasoning. The United States also requests that, if the Panels accept Mexico's request, they adopt verbs that convey that the sentences reflect Mexico's arguments and not uncontested facts or findings by the Panels. We begin by observing that, in the paragraph in question, the Panels do not "agree" with the United States, as Mexico suggests. Rather, in that paragraph, the Panels record their own assessment of the Exhibit in question, based on their own reading of it and informed by the arguments of both parties. This is entirely in keeping with the Panels' obligation under Article 11 of the DSU to carry out an "objective" assessment of the matter. As this paragraph contains the Panels' own assessment, it does not repeat the arguments of either of the parties. We therefore consider that it would be inappropriate to insert a summary of Mexico's argument into this paragraph. Nevertheless, to try to accommodate Mexico's concern, we have added new text to footnote 506 in the paragraph in question, in which we describe Mexico's argument using Mexico's proposed text. We have also provided in the same footnote an explanation as to why we do not accept Mexico's argument concerning the meaning and evidentiary value of Exhibit USA-45.

6.50. With respect to paragraph 7.300 (paragraph 7.299 in the Interim Reports) Mexico argues that the Panels "decided to agree with the US position" on Exhibit MEX-14, but omitted to mention arguments made by Mexico in respect of this Exhibit. Mexico therefore requests that a sentence be added to the end of the paragraph in question recalling Mexico's argument. The United States does not oppose this request, but suggests that the appropriate place to note Mexico's argument would be in the paragraphs describing the parties' arguments, rather than the paragraphs where the Panels explain their reasoning. The United States also requests that, if the Panels accept Mexico's request, they modify the alternative language proposed by Mexico in order to more accurately convey the limited nature of Mexico's argument on this Exhibit. We begin by observing that, in the paragraph in question, the Panels do not "agree" with the United States, as Mexico suggests. Rather, in that paragraph, the Panels record their own assessment of the Exhibit in question, based on their own reading of it and informed by the arguments of both parties. This is entirely in keeping with the Panels' obligation under Article 11 of the DSU to carry out an "objective" assessment of the matter. As this paragraph contains the Panels' own assessment, it does not repeat the arguments of either of the parties. We therefore consider that it would be inappropriate to insert a summary of Mexico's argument into this paragraph. Nevertheless, to try to accommodate Mexico's concern, we have added new text to footnote 515 in the paragraph in question, in which we describe Mexico's argument using Mexico's proposed text, including the modification suggested by the United States, which seems to us to increase the accuracy of the text. We have also provided in the same footnote an explanation as to why we do not accept Mexico's argument concerning the meaning and evidentiary value of Exhibit MEX-14.

6.51. With respect to paragraph 7.301 (paragraph 7.300 in the Interim Reports) Mexico argues that the Panels "decided to agree with the US position" on Exhibit USA-47, but omitted to mention arguments made by Mexico in respect of this Exhibit. Mexico therefore requests that a sentence be added to the end of the paragraph in question recalling Mexico's argument. The United States does not oppose this request, but suggests that the appropriate place to note Mexico's argument would be in the paragraphs describing the parties' arguments, rather than the paragraphs where the Panels explain their reasoning. The United States also requests that, if the Panels accept Mexico's request, they adopt verbs that convey that the sentences reflect Mexico's arguments and not uncontested facts or findings by the Panels. We begin by observing that, in the paragraph in question, the Panels do not "agree" with the United States, as Mexico suggests. Rather, in that

[22] We observe that, in its comments on Mexico's requests, the United States appears to refer to this paragraph mistakenly as 7.294.

paragraph, the Panels record their own assessment of the Exhibit in question, based on their own reading of it and informed by the arguments of both parties. This is entirely in keeping with the Panels' obligation under Article 11 of the DSU to carry out an "objective" assessment of the matter. As this paragraph contains the Panels' own assessment, it does not repeat the arguments of either of the parties. We therefore consider that it would be inappropriate to insert a summary of Mexico's argument into this paragraph. Nevertheless, to try to accommodate Mexico's concern, we have added a new footnote 517 to the paragraph in question in which we describe Mexico's argument using Mexico's proposed text. We have also provided in the same footnote an explanation as to why we do not accept Mexico's argument concerning the meaning and evidentiary value of Exhibit USA-47. We have also added the full title of the Exhibit into the text of the paragraph in question in the interests of consistency.

6.52. With respect to paragraph 7.305 (paragraph 7.304 in the Interim Reports) Mexico argues that the Panels "decided to agree with the US position" on Exhibit USA-140, but omitted to mention arguments made by Mexico in respect of this Exhibit. Mexico therefore requests that a sentence be added to the end of the paragraph in question recalling Mexico's argument. The United States does not make any comment on this request. We begin by observing that, in the paragraph in question, the Panels do not "agree" with the United States, as Mexico suggests. Rather, in that paragraph, the Panels record their own assessment of the Exhibit in question, based on their own reading of it and informed by the arguments of both parties. This is entirely in keeping with the Panels' obligation under Article 11 of the DSU to carry out an "objective" assessment of the matter. As this paragraph contains the Panels' own assessment, it does not repeat the arguments of either of the parties. We therefore consider that it would be inappropriate to insert a summary of Mexico's argument into this paragraph. Nevertheless, to try to accommodate Mexico's concern, we have added a new footnote 522 to the paragraph in question in which we describe Mexico's argument using Mexico's proposed text. We have also provided in the same footnote an explanation as to why we do not accept Mexico's argument concerning the meaning and evidentiary value of Exhibit USA-140.

6.53. With respect to paragraph 7.307 (paragraph 7.306 in the Interim Reports) Mexico argues that the Panels "decided to agree with the US position" on Exhibit USA-142, but omitted to mention arguments made by Mexico in respect of this Exhibit. Mexico therefore requests that a sentence be added to the end of the paragraph in question recalling Mexico's argument. The United States does not object to the idea of the Panels adding a summary of Mexico's argument concerning this Exhibit. However, the United States argues that the Panels should not use the words "Mexico observed", which could be read as suggesting that Mexico's argument was uncontested by the United States. Moreover, the United States argues that the Panels should not accept Mexico's request to include language to the effect that Mexico argued that Exhibit USA-142 "is not probative evidence", since, in the United States' view, this would not be an accurate reflection of Mexico's argument in its submissions. We begin by observing that, in the paragraph in question, the Panels do not "agree" with the United States, as Mexico suggests. Rather, in that paragraph, the Panels record their own assessment of the Exhibit in question, based on their own reading of it and informed by the arguments of both parties. This is entirely in keeping with the Panels' obligation under Article 11 of the DSU to carry out an "objective" assessment of the matter. As this paragraph contains the Panels' own assessment, it does not repeat the arguments of either of the parties. We therefore consider that it would be inappropriate to insert a summary of Mexico's argument into this paragraph. Nevertheless, to try to accommodate Mexico's concern, we have added new text to footnote 524 in the paragraph in question, in which we describe Mexico's argument using Mexico's proposed text. We accept the wording proposed by the United States, since although it is true that Mexico did not use the words "is not probative evidence" in its submissions, the phrase nevertheless accurately reflects Mexico's position. In the same footnote, we have also inserted an explanation as to why we do not accept Mexico's argument concerning the meaning and evidentiary value of Exhibit USA-142.

6.54. Regarding paragraph 7.323 (paragraph 7.322 in the Interim Reports), Mexico requests that some modifications are introduced to reflect further Mexico's arguments. The United States argues that if the Panels were to accept Mexico's request concerning this paragraph, the verbs Mexico proposes should be replaced to accurately convey that the sentences summarize Mexico's arguments and are not factual findings by the Panels. We have accepted Mexico's request but made some textual modifications to the language Mexico proposed.

6.55. Regarding paragraph 7.347 (paragraph 7.346 in the Interim Reports), Mexico requests that we change the figure 6% to 65%. The United States supports Mexico's request. We have made the requested modification.

6.56. With respect to paragraph 7.584 (paragraph 7.582 in the Interim Reports) which concerns the parties' arguments regarding the new captain training course introduced by the 2016 Tuna Measure, Mexico argues that the description is incomplete because it does not include Mexico's response to the United States' argument. Mexico therefore requests that we insert language summarizing this response. The United States does not object to this request, but argues that the description of Mexico's argument would be better placed in an earlier paragraph where the Panels describe Mexico's argument. The United States also suggests that the Panels should use the words "Mexico also argues" rather than the words "Mexico responds", to more accurately describe the context on which Mexico's argument was made. We accept this request and have inserted Mexico's proposed language, with the change suggested by the United States, which adds to the completeness and accuracy of the description of the parties' arguments. We have also accepted the United States' suggestion to put this language in paragraph 7.583 (paragraph 7.581 in the Interim Reports) rather than paragraph 7.584, since it is the former rather than the latter that describes Mexico's arguments.

6.57. Regarding paragraph 7.634 (paragraph 7.632 in the Interim Reports), Mexico requests that a sentence be added at the end of this paragraph to better describe Mexico's argument regarding the complex supply chain for tuna by referring to evidence submitted by Mexico on this point, namely, a recent report of the International Seafood Sustainability Foundation. The United States argues that the exhibit that Mexico requests the Panels to cite in the paragraph at issue was submitted in Mexico's comments on the United States response to the Panels' questions and that, therefore, the United States did not have the opportunity to comment on it. The United States also contends that the mentioned exhibit is not relevant to the measure at issue in these proceedings, and that therefore its meaning is not uncontested. Therefore, the United States asks the Panels to make clear that the language proposed by Mexico represents what Mexico argues in this regard, and not an uncontested fact. Finally, should the Panels accept Mexico's request, the United States also requests that another paragraph be inserted in order to provide a summary of the United States' arguments on the same issue. We note that the argument that Mexico requests the Panels to reflect in paragraph 7.634 pertains to the issue of whether tuna companies are able to track a particular catch to the individual vessel that caught it and to other points in the supply chain. The present proceedings, however, concern whether the 2016 Tuna Measure is calibrated to different levels of risks posed to dolphins by different fishing methods in different parts of the ocean, among others, in terms of its tracking and verification requirements. Therefore, the argument that Mexico requests us to reflect in the paragraph at issue is not directly relevant to our inquiry. We therefore deny Mexico's request.

6.58. Regarding paragraph 7.635 (paragraphs 7.633 in the Interim Reports), Mexico requests that a sentence be added at the end of the paragraph in order to reflect Mexico's argument regarding the unreliability of tracking systems in Thailand, the Philippines and Chinese Taipei at the same level of detail as that at which the arguments of the United States are explained in the same paragraph. The United States argues that the Interim Reports provide a complete summary of Mexico's arguments concerning the tracking and verification regimes of certain Asian countries, and that the summaries of both the United States' and Mexico's arguments are otherwise comparable in terms of the level of detail. If the Panels decide to accept Mexico's request, the United States requests that some modifications be introduced to the language proposed by Mexico to underline that what is said represents Mexico's arguments. Bearing in mind that this request relates to the Panels' description of Mexico's own arguments, we accept Mexico's request and have made the requested change in order to better reflect Mexico's position. In doing so, however, we have modified the language proposed by Mexico in certain regards, to underline that the added text represents Mexico's arguments.

7 FINDINGS

7.1 Introduction

7.1.1 Procedural overview

7.1. The current proceedings are the latest in the long-running dispute between Mexico and the United States over the WTO-consistency of the United States' labelling regime for "dolphin-safe" tuna products.[23] The procedural history of the dispute is summarized in the Appellate Body's report in the first compliance proceedings[24] and in the Decision by the Arbitrator in this dispute[25], and need not be repeated in detail here.

7.2. On 20 November 2015, the Appellate Body circulated its report in the first compliance proceedings brought by Mexico against the measure taken by the United States to comply with the DSB recommendations and rulings in the original proceedings. In these Reports, the Panels refer to that measure as the "2013 Tuna Measure".[26] The Appellate Body found that the 2013 Tuna Measure modified the conditions of competition to the detriment of Mexican tuna products in the US market; that such detrimental impact did not stem exclusively from a legitimate regulatory distinction, and, thus, that the 2013 Tuna Measure accorded less favourable treatment to Mexican tuna products as compared to like tuna products from the United States and other countries and was therefore inconsistent with Article 2.1 of the TBT Agreement. The Appellate Body also found that the 2013 Tuna Measure was inconsistent with Articles I:1 and III:4 of the GATT 1994, and that the United States had not demonstrated that it was applied in a manner that did not constitute arbitrary or unjustifiable discrimination as required by the chapeau of Article XX of the GATT 1994.[27] The findings of the Appellate Body are described in more detail later in these Reports.

7.3. On 3 December 2015, the DSB adopted the panel and Appellate Body reports in the first compliance proceedings. In response, on 22 March 2016, the United States National Oceanic and Atmospheric Administration (NOAA) issued an interim final rule with the aim of bringing the labelling regime for dolphin-safe tuna products into compliance with the United States' obligations under the WTO Agreement. As discussed in further detail below, this interim rule (the 2016 Rule) made certain changes to the implementing regulations, but did not affect either the DPCIA or the *Hogarth* ruling. In these Reports, the DPCIA, the implementing regulations as amended by the 2016 Rule, and the *Hogarth* ruling are collectively referred to as the "2016 Tuna Measure".

7.1.2 Format of these Reports

7.4. As described above, these proceedings are somewhat unusual in that two compliance panels have been established – one at the request of the original complaining party and the other at the request of the original responding party – to determine the WTO-consistency of the same measure.[28] The unusual nature of the proceedings gives rise to certain complications, the most important of which, concerning the burden of proof, is discussed below.[29] It also raises the question of how the two Panels should present their findings, given that both are charged with assessing the WTO-consistency of the same measure. After consulting with the parties, the Panels have decided to issue their findings in a single document, with separate conclusions for each of the two proceedings. This is justified by the close interrelation of the two proceedings. Indeed, insofar

[23] In the original proceedings, Mexico challenged the Dolphin Protection Consumer Information Act of 1990, codified in *United States Code*, Title 16, Section 1385 (the DPCIA), (Exhibits USA-01, MEX-01); sections 216.91 and 216.92 of Title 50 of the *United States Code of Federal Regulations* (the implementing regulations or CFR), (Exhibits USA-02, MEX-02); and the ruling by the United States Court of Appeals for the Ninth Circuit in *Earth Island Institute et al v William T. Hogarth*, 494 F.3d 757 (9th Cir. 2007) (*Hogarth* ruling), (Exhibit MEX-03).

[24] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 1.2–1.6.

[25] Decision by the Arbitrator, *US – Tuna II (Mexico)*, paras. 1.1–1.4.

[26] See Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 1.7 and 6.8. The 2013 Tuna Measure consisted of the DPCIA; the implementing regulations as amended by the "Enhanced Document Requirements to Support Use of the Dolphin Safe Label on Tuna Products" (the 2013 Rule), published in the United States *Federal Register* on 9 July 2013; and the *Hogarth* ruling.

[27] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 8.1.

[28] The parties define the measure at issue slightly differently: see Section 7.4.1below.

[29] See Section 7.6below.

as the same questions are raised about the same measure in both proceedings, it would be inefficient and unnecessarily duplicative to deal with each of the proceedings separately.

7.2 Preliminary Issue: United States' request to lift the confidentiality of its statements at the Panels' substantive meetings with the parties and third parties

7.2.1 Procedural background

7.5. As reflected in Section 1.3.2, following an initial request by the United States and subsequent requests by certain third parties, the Panels in these proceedings authorized the United States and the relevant third parties to lift the confidentiality of their statements at the Panels' consolidated substantive meeting with the parties and at the third party session. The Panels permitted the partial public observation of their meeting through delayed viewing, to ensure that the confidentiality of Mexico's statements or the statements of non-disclosing third parties was not breached. The parties were informed that the reasons supporting the Panels' decision on the United States' request would be elaborated by the Panels in their Reports.

7.2.2 Merits of the United States' request for a partially open meeting

7.6. The Panels note that *US – Tuna II (Mexico)* is the first dispute in which a WTO adjudicator at the request of a party organized a partially open meeting with the parties. An identical request was made by the United States in the arbitration conducted under Article 22.6 in this dispute.[30] The arbitrator granted that request in the light of the particular circumstances of that proceeding.[31] The arbitrator who granted the United States' request in this dispute was composed of the same individuals as these Panels. Unlike the arbitrator, however, the Panels also benefited from, and took into account, the views expressed by the third parties participating in these compliance panel proceedings. Moreover, we recall that panel reports are subject to appeal. In the light of this, and bearing in mind our responsibility under Article 12.7 of the DSU to explain the basic rationale behind our findings, it is appropriate to set out in these Reports the Panels' full legal analysis even if the arbitrator has already provided a full legal analysis of essentially the same issue in its decision.[32]

7.7. Accordingly, we set out below the detailed reasons supporting our decision to grant the United States' request in the light of the specific circumstances of these proceedings. We begin by summarizing the parties' and third parties' arguments.

7.8. The United States submits that it is not asking the Panels to mandate the opening of the meeting over Mexico's objection. Instead, the United States seeks to exercise its right to disclose to the public its own statements at the Panels' consolidated substantive meeting, and to that end requests that the Panels facilitate this disclosure by adopting appropriate procedures. The United States argues that it is possible for the Panels to authorize the United States to disclose its own statements and at the same time to maintain the confidentiality of Mexico's statements. In the United States' view, meetings opened for public observation enhance understanding of the dispute settlement system and promote confidence in its objectivity and professionalism.

7.9. The United States submits that its request is supported by the Appellate Body report in *US – Continued Suspension*. According to the United States, the Appellate Body in that dispute agreed that each party has the right to maintain the confidentiality of its own statements and therefore provided each party and third party a possibility to lift the confidentiality of their statements at the Appellate Body's hearing. The United States notes that it is possible to protect Mexico's right to maintain the confidentiality of its statements while also protecting the United States' right to disclose its own statements to the public.

7.10. Mexico observes at the outset that it is not in a position to accept open meetings in this dispute. Mexico recalls that even in those disputes where it did not object to open meetings, it had indicated that this was without prejudice to its systemic position on public observation of meetings in dispute settlement proceedings. Mexico also notes that the meetings in the original and first compliance proceedings in this dispute were not open for public observation.

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[30] Decision of the Arbitrator, *US – Tuna II (Mexico) (Article 22.6 – US)*, paras. 2.6 and 2.11.
[31] Decision of the Arbitrator, *US – Tuna II (Mexico) (Article 22.6 – US)*, para. 2.34.
[32] Decision of the Arbitrator, *US – Tuna II (Mexico) (Article 22.6 – US)*, paras. 2.13-2.34.

7.11. In Mexico's view, the Panels should reject the United States' request. For Mexico, it is clear from the DSU that panel meetings are confidential, except if all parties agree otherwise. Mexico considers that Appendix 3 of the DSU indicates that deliberations must be kept confidential. Mexico recalls in this connection that it was a third party in *US – Continued Suspension*, and that it was among the Members that criticized the approach taken in that dispute at the DSB meeting at which the panel and Appellate Body reports were adopted. Mexico notes that unlike in that dispute, in this dispute there has been no agreement by the parties on holding a public meeting. In Mexico's view, there is in the present dispute a relationship of confidentiality between the parties and the Panels, not between each party and the Panels. According to Mexico, the Appellate Body in *EU – Biodiesel (Argentina)* declined the European Union's request to allow public observation of the oral hearing, noting that the other party expressed a preference against doing so.

7.12. In Mexico's view, proceeding as the United States requests would affect the rights of Mexico and those of other Members that have systemic concerns about open meetings. Mexico submits in this regard that acceding to the United States' request could force other Members to accept open meetings because otherwise only one party's views are ventilated. Mexico suggests that the DSU already gives the United States the possibility to make its statements available on the website of the United States Trade Representative, as is its practice. Mexico considers that the United States' right to disclose its own positions and statements to the public does not have to be exercised through an open meeting.

7.13. Mexico is therefore of the view that the Panels should deny the United States' request for a partially open meeting. Mexico also clarifies that it is not prepared to waive its right to confidentiality and that it therefore designates all information submitted by it in this dispute as confidential. Mexico considers that all statements and documents submitted by the parties and third parties are confidential until the Panels' Reports are circulated.

7.14. Brazil, China, Ecuador, Guatemala, Korea, and India are opposed to the United States' request. Brazil, China, Ecuador, Guatemala, and Korea consider that panels may not hold open meetings, except with the agreement of all parties. Brazil, Ecuador, and Korea are of the view that this is clear from, *inter alia*, Article 14 of the DSU on panel deliberations.[33] China, Ecuador, Guatemala, and India submit that the United States is free to increase transparency by releasing its statements to the public without the assistance of the Panels pursuant to Article 18.2 of the DSU. Moreover, Brazil, China, and Guatemala question whether a partially open panel meeting would meaningfully improve transparency. Brazil and India also observe that the issue of open hearings is a systemic and sensitive one on which Members have not reached consensus.

7.15. Australia notes that it supports transparency and that it therefore, in principle, also supports the United States' request in this dispute, noting that panel meetings have been opened in the past with necessary safeguards to protect confidentiality. Norway considers that the DSU does not prevent panels from holding a partially open meeting as the United States suggests and notes that Article 12.1 of the DSU permits panels to depart from the working procedures in Appendix 3 after consulting with the parties. Japan is of the view that a partially open meeting would require additional work of the Panels and parties, but that the Panels can properly conduct a partially open meeting through delayed broadcasting without disclosing statements of WTO Members that do not wish to make them in public. In Japan's view, the only novelty in the United States' request is that it is one party, rather than all parties, that wishes to disclose its statements to the public.

7.16. The Panels begin their analysis by noting that numerous WTO adjudicators, including the Appellate Body, panels and Article 22.6 arbitrators, have on request opened meetings with parties for public observation in their entirety, except for any parts of meetings during which BCI was addressed.[34] If a WTO adjudicator has the power to accede to a request to fully open a hearing or meeting with the parties, then *a fortiori* it must in principle also have the power to go less far, including by opening only parts of a meeting with the parties.

[33] India considers that it would certainly be inconsistent with the DSU if a panel were to open a panel meeting, fully or partially, without the agreement of all parties. India does not wish to comment, however, on whether it would in its view be consistent with the DSU if a panel were to open a panel meeting by agreement of the parties.

[34] The United States in this dispute is not seeking authorization to disclose BCI to the public. Indeed, the United States requested the Panels to adopt additional working procedures for the protection of BCI.

7.17. The meetings with parties in previous WTO dispute settlement proceedings that have been opened for public observation in their entirety have been opened with the agreement of all parties. At those fully open meetings, the parties were authorized to disclose not only statements of their own positions, but also statements of the positions of the other party or parties. The situation in the present proceedings is different, however. The United States is seeking authorization to disclose statements of its own positions only.

7.18. We observe in this regard that, according to Article 18.2 of the DSU, nothing in the DSU precludes a party "from disclosing statements of its own positions to the public".[35] According to the Appellate Body, this provision allows a party to forego confidentiality protection in respect of statements of its own positions.[36] The Appellate Body has further confirmed that Article 18.2 covers not just statements in written form, but also oral statements and responses to questions at Appellate Body hearings.[37] The same holds true, in our view, for oral statements and responses given at meetings of panels. We further observe that Article 18.2 does not stipulate that a party may disclose its statements only once, or only after any meetings of a WTO adjudicator with the parties.[38]

7.19. Mexico, supported by several third parties, nevertheless considers that we cannot authorize the United States to forego confidentiality protection in respect of its statements of its own positions, except with Mexico's agreement. Mexico bases this contention on the Appellate Body's procedural ruling in *EU – Biodiesel (Argentina)*.[39] In our view, Mexico's reliance on this procedural ruling is misplaced. In *EU – Biodiesel (Argentina)*, the Appellate Body rejected a unilateral request by the European Union that the Appellate Body conduct a fully open hearing even though the other party, Argentina, was not supportive of that request.[40] This is not the situation we are facing, since the United States in this dispute requests authorization to disclose statements of its own positions, not those of Mexico.[41]

7.20. Mexico further seems to consider that in respect of meetings or hearings, the DSU protects the confidentiality of the relationship between the parties taken as a group and a WTO adjudicator, rather than between each of the parties and a WTO adjudicator. We note, however, that Article 18.2 gives each party individually the right to disclose statements of its own positions. Where a fully open meeting is to be held, it is clear that all parties need to request authorization to disclose the statements of their own positions that they wish to make at the meeting. This does not imply, however, that one party can simply veto another party's request that it be authorized to disclose statements of its own positions. Indeed, this is also the approach taken by the Appellate Body in respect of third parties participating in its hearings (which the Appellate Body refers to as "third participants"). Although the Appellate Body has referred to a relationship of confidentiality between "the third participants"[42] and itself, it has authorized those third participants that so wished to lift the confidentiality of their statements at the hearing, despite objections by other third participants.[43] Thus, the Appellate Body did not impose an inflexible "all-or-none" rule for the lifting of confidentiality. In our view, this approach is equally appropriate in respect of the relationship between the parties and any WTO adjudicator. Indeed, it would be incongruous to permit individual third parties to forego confidentiality protection in respect of their statements (in those disputes where the parties have requested the same) even as other third parties wish to hold on to that protection, but to withhold that same opportunity from a party merely because

[35] We note that the immediate context of Article 18.2 of the DSU suggests that it relates to statements of positions made to panels or the Appellate Body.

[36] Appellate Body Report, *US – Continued Suspension*, Annex IV, paras. 4 and 11.

[37] Appellate Body Report, *US – Continued Suspension*, Annex IV, para. 4.

[38] As we address below, Article 18.2 of the DSU does not mean that we must automatically authorize the United States to disclose to the public an oral statement of its own positions made during our meeting. Indeed, we recall in this respect that even if we were to deny the United States' request, the United States could still exercise its right to disclose statements of its own positions in a different form or on a different occasion.

[39] Mexico refers to Appellate Body Report, *EU – Biodiesel (Argentina)*, Annex D-2 (procedural ruling of 11 July 2016).

[40] Appellate Body Report, *EU – Biodiesel (Argentina)*, Annex D-2, paras. 2 and 3.

[41] We emphasize that we are not suggesting that a fully open meeting could be conducted in the absence of an agreement between the parties. Nor is this the position of the United States in this dispute. Indeed, the United States initially sought Mexico's agreement to conduct a fully open panel meeting. When Mexico expressed its opposition, the United States did not pursue its proposal. The United States proceeded instead to request that we allow the United States to disclose statements of its own positions at our meeting.

[42] Appellate Body Report, *US – Continued Suspension*, Annex IV, para. 6.

[43] Appellate Body Report, *US – Continued Suspension*, Annex IV, paras. 1 and 11.

another party objects to the granting of such an opportunity. Put another way, when it comes to authorizing the lifting of confidentiality protection for their statements, we consider that we should treat parties no less favourably than third parties.

7.21. Mexico has also referred to Article 14.1 of the DSU and Paragraph 3 of Appendix 3 of the DSU, which provide that panel "deliberations" are to be confidential. We do not agree that these provisions imply that we cannot authorize the United States to lift the confidentiality of its statements. These provisions relate to a panel's internal work, not the meetings with the parties and third parties.[44] Moreover, just like the Appellate Body, panels have authorized third parties that so wished to lift the confidentiality of their statements even as some third parties objected.[45] This approach necessarily assumes that Article 14.1 does not prescribe closed panel meetings with parties or third parties.

7.22. In our view, the confidentiality of panel meetings is covered by Paragraph 2 of Appendix 3 of the DSU, which says that panels shall meet in closed session. However, this paragraph forms part of those provisions from which panels may depart pursuant to Article 12.1 of the DSU, after consulting the parties and provided that such departure is not contrary to another provision of the DSU.[46] In any event, Paragraph 2 in our view does not preclude a party or third party from foregoing confidentiality protection for its statements at a panel meeting, provided that another party (hereafter a "non-disclosing party") or other third parties (hereafter "non-disclosing third parties") can maintain confidentiality protection for their statements. Indeed, as already explained, this is the approach followed by those panels that held partially open third party sessions. We consider that Paragraph 2 permits the same approach in the present proceedings with regard to the parties.

7.23. In the light of the foregoing, we consider that in principle we have the power to authorize the United States to disclose statements of its own positions (but not those of Mexico or a non-disclosing third party) to the public through a partially open panel meeting, even if Mexico opposes the United States' request. However, it does not follow that we must automatically grant the United States' request. We thus proceed to provide the main considerations that underpin our decision to grant the United States' request in the particular circumstances of these proceedings.

7.24. Although the United States has an autonomous right to disclose statements of its own positions to the public, that right is not absolute. In the context of this dispute, it notably finds its limitation in Mexico's right *not* to have statements of its own positions disclosed by the United States during any public parts of the Panels' consolidated meeting.[47] Mexico indicated in this regard that it wished to maintain the confidentiality of its own positions and information submitted to the Panels. It is therefore necessary to provide for a review process prior to any public viewing of a partially open meeting, to allow the Panels and the parties to ensure that any statements disclosed by the United States do not inadvertently disclose, directly or indirectly, statements of Mexico's positions. It follows that we may authorize the United States to disclose in a partially open meeting only those parts of its statements that do not disclose statements of Mexico's positions, and that we must therefore reserve the right to appropriately redact the statements that the United States wishes to be open for public observation.[48]

7.25. For the same reason, we consider that we may authorize the United States to disclose in a partially open meeting only those parts of its statements that do not disclose statements of non-disclosing third parties. Likewise, we consider that we may authorize disclosing third parties to disclose in a partially open third party session only those parts of their statements that do not disclose statements of Mexico or non-disclosing third parties. Consequently, we must also reserve the right to redact (i) the statements of the United States to ensure that they do not disclose,

[44] We note that in *US – Continued Suspension*, the Appellate Body used the term "deliberations" in the same sense, in relation to the internal work of the Appellate Body. Appellate Body Report, *US – Continued Suspension*, Annex IV, para. 8. See also Panel Report, *US – Continued Suspension*, para. 7.49.

[45] See, for instance, *US – Tax Incentives*, para. 1.20; *Canada — Feed-In Tariff Program/Canada – Renewable Energy*, para. 1.9; *US – COOL (Article 21.5 – Canada and Mexico)*, para. 1.10; *US – Continued Zeroing*, para. 1.9.

[46] Panel Report, *US – Continued Suspension*, paras. 7.46-7.47.

[47] Consistent with para. 1.1(e) of our Additional Working Procedures on Partially Open Meetings (Annex A-4), we use the term "positions" in this Section of our Findings to encompass also the exhibits submitted and the arguments put forward by a party.

[48] We note that this type of redaction is already routinely used in open meetings whenever the statements made by the parties or third parties address BCI.

directly or indirectly, statements of non-disclosing third parties' positions, and (ii) the statements of disclosing third parties to ensure that they do not disclose, directly or indirectly, statements of Mexico's or non-disclosing third parties' positions.

7.26. A further limitation arises from the requirements of due process. These requirements mean, *inter alia*, that all parties must be given the opportunity to lift the confidentiality of statements of their own positions at partially open meetings. In these proceedings, Mexico chose not to avail itself of that opportunity. Further, these requirements mean that the implementation of any additional working procedures for partially open meetings, including the associated redaction process, must not impair the ability of any party that opposes partially open meetings to present its case or defence effectively.

7.27. We note, in addition, Mexico's argument that if a partially open meeting is conducted, viewers will by definition be exposed to only one party's statements. In our view, however, this does not compromise due process. First, a party that does not wish its statements at a WTO adjudicator's meeting to be open for public observation is not thereby deprived of the possibility to otherwise disclose statements of its positions to the public. More importantly, Article 18.2 already allows each party to disclose statements of its own positions to the public independently of whether another party does the same. A partially open meeting thus does not create a new situation. The media, for instance, can (and does) already report to the public based on statements of only one party's positions where only that party has made available its statements on its government's website. Finally, we recall that in disputes where the meetings with the parties were opened for public observation, both the Appellate Body and panels have authorized third parties that so wished to lift the confidentiality of their statements at the relevant hearing or third-party session. Under this practice, it is accepted that viewers of those meetings are exposed to the views of only some third parties, even though the Appellate Body and panels are required to take all third parties' views into account.[49]

7.28. Another factor that in our view should be taken into account when assessing a request for a partially open meeting is the importance, articulated in Article 3.3 of the DSU, of the prompt settlement of disputes. This suggests to us that the conduct of a partially open meeting should not significantly delay a WTO adjudicator's proceedings. In our view, one way to fulfil this objective is to devise additional working procedures governing partially open meetings that put appropriate emphasis on workability and efficiency.

7.29. In addition, we must bear in mind our primary duty, which is to carefully assess the matter before us and resolve the dispute between the parties. Partially open meetings impose a greater burden on a WTO adjudicator than fully open meetings, owing to the need to make sure that there is no disclosure of statements of any party that wishes to maintain the confidentiality of its statements. In deciding whether to authorize a request for a partially open meeting, it therefore appears appropriate that a WTO adjudicator assess at the outset whether it has access to the requisite resources, in technical, logistical and human terms, to conduct a partially open meeting and any associated redaction process. Otherwise, the conduct of a partially open meeting could potentially have an adverse impact on the proper discharge of the adjudicative function and could thus also be detrimental to due process or the prompt settlement of disputes.

7.30. We note, finally, the Appellate Body's view that any authorization to forego the confidentiality protection for statements of a party's or third party's positions must not undermine the integrity of the adjudicative function. The Appellate Body has already clarified in this regard that the mere fact of permitting public observation of a meeting does not have an adverse impact on the integrity of the adjudicative function.[50]

7.31. In sum, it is in our view permissible for a WTO adjudicator to authorize a request for a partially open meeting if the conduct of such a meeting does not impair or interfere with (a) a non-disclosing party's or non-disclosing third party's right to confidentiality protection of statements of its own position, (b) due process, (c) the prompt settlement of disputes, or (d) the careful and efficient discharge, or the integrity, of the adjudicative function. Beyond that, we consider that it falls within the sound discretion of each WTO adjudicator considering a request for a partially open meeting to decide whether it is appropriate in the particular circumstances of its case to accede to

[49] See, for instance, Article 10.1 of the DSU.
[50] Appellate Body Report, *US – Continued Suspension*, Annex IV, paras. 7 and 10.

that request.[51] We observe in this respect that the rejection of such a request by a WTO adjudicator would not in and of itself deprive the requesting party of its right to disclose statements of its own positions to the public, since it would still have available to it other ways of exercising that right.

7.32. Guided by the foregoing considerations, in the present proceedings we devised additional working procedures in consultation with the parties that we think fully protect Mexico's and non-disclosing third parties' right to confidentiality protection, satisfy the requirements of due process, and are sufficiently workable and efficient to safeguard the promptness of dispute settlement and the proper discharge and integrity of our adjudicative function.[52]

7.33. In granting the United States' request we notably also take into account the following four circumstances. First, the present dispute concerns the protection of dolphins and thus a conservation-related measure. In this kind of dispute, even a partially open meeting is apt to enhance understanding of, and confidence in, the WTO dispute settlement process.[53] Second, there was in these proceedings only one relatively short and consolidated substantive meeting with the Panels that was requested to be partially opened for public observation. Third, the parallel conduct of an arbitration under Article 22.6 of the DSU in this dispute required the assembly of a substantial Secretariat support team. We were thus in a position where we could conduct a partially open meeting and carry out the associated redaction process without this compromising our substantive work. Finally, in granting the United States' request, we also seek to ensure consistency, since the arbitrator in this dispute has already authorized an identical request by the United States.

7.34. On the basis of these considerations, we therefore conclude that in the particular circumstances of these compliance panel proceedings it is, on balance, appropriate for us to accept the United States' request that it be permitted to disclose through public viewing the statements of its own positions made during the Panels' meeting. We likewise permit any third parties that so request to disclose through public viewing the statements of their own positions made during the Panels' third party session.[54] Our authorizations are subject to the dual condition that the public viewing take the form of delayed (rather than simultaneous) viewing, and that any parts of the meeting, including the third party session, opened for partial public observation not disclose statements of Mexico's positions, or positions of non-disclosing third parties, and hence be subject to redaction prior to the public viewing as necessary.

7.3 Preliminary Issue: United States' failure to request consultations

7.35. In its first written submission, Mexico argues that the United States did not request to hold consultations with Mexico in relation to the Article 21.5 proceedings it initiated, and thereby violated its obligations under Articles 4, 6, and 21.5 of the DSU. According to Mexico, as a legal matter, consultations must be held in Article 21.5 proceedings unless explicitly agreed otherwise in a sequencing agreement between the disputing parties. In Mexico's view, in normal circumstances, the United States' failure to request consultations prior to requesting the establishment of a panel under Article 21.5 would undermine the jurisdiction of the panel established pursuant to that request. However, given the specific circumstances of these proceedings, wherein the subject matters of the two proceedings substantially overlap and consultations were held in the proceedings brought by Mexico[55], Mexico does not challenge the jurisdiction of the Panel established pursuant to the request of the United States. Mexico does, however, request that the Panels set forth guidance for future cases, especially as to whether, in the absence of an agreement with the other party, a Member may initiate Article 21.5 proceedings without first

[51] See Appellate Body Report, *EC – Hormones*, para. 154.

[52] See the Panels' Additional Working Procedures on Partially Open Meetings (Annex A-4), in particular paras 3.5, 3.10-3.20, 4.5, and 4.10-4.19.

[53] The United States indicated that it was pursuing these objectives in requesting the opening of our meeting. We also note in this connection that in our Additional Working Procedures on Partially Open Meetings (Annex A-4), at paras. 3.11 and 4.11, we have sought to avoid unnecessary discontinuity in the delayed viewing by inviting the United States and disclosing third parties to structure their statements in such a way as to separate those statements that disclose statements of positions of Mexico or non-disclosing third parties from those that do not.

[54] As indicated at para. 1.19, seven third parties sought and were given permission to disclose statements of their own positions during the Panels' third party session (Australia, Canada, the European Union, Japan, Korea, Norway, and New Zealand).

[55] See WT/DS381/36 and WT/DS381/36/Corr.1.

requesting consultations. In Mexico's view, there is nothing in the DSU or in the jurisprudence that prevents the Panels from providing the requested guidance on this important systemic issue.[56]

7.36. In response to Mexico's request for guidance, the United States submits that the Panels should not issue the guidance requested by Mexico given that there is no live controversy behind Mexico's request. In the view of the United States, the guidance requested by Mexico would amount to an advisory opinion that would not contribute to resolving the dispute and would therefore be outside the mandate of the Panels. Moreover, the United States argues that there is in fact no requirement to request consultations under Article 4 of the DSU as a condition for requesting the establishment of a compliance panel pursuant to Article 21.5 of the DSU. According to the United States, the Appellate Body has already confirmed this point. Further, in the view of the United States, Article 4 of the DSU is, according to its own terms, inapplicable in situations where the original responding party initiates Article 21.5 proceedings.[57]

7.37. The Panels begin by observing that, as Mexico acknowledges, consultations were held between the parties in the context of the compliance proceedings brought by Mexico. As we have already noted, those proceedings are closely connected to the proceedings brought by the United States, in the context of which Mexico alleges that the United States failed to request to hold consultations. The consultations held in the context of the proceedings brought by Mexico would certainly have enabled the parties to "exchange information, assess the strengths and weaknesses of their respective cases, [and] narrow the scope of the differences between them"[58] with respect to both the proceedings brought by Mexico and those brought by the United States. Indeed, Mexico also acknowledges that "in the circumstances of this dispute the holding of consultations in the parallel proceeding mitigates the failure of the United States to consult[.]"[59] We do not see, therefore, that the United States' failure to consult could, in the specific circumstances of these proceedings, have had any practical effect on the parties' ability to understand, prepare for, or even narrow their dispute.

7.38. Moreover, we note that in *Mexico – Corn Syrup*, the Appellate Body declined to decide whether the general obligations in the DSU regarding prior consultations were applicable in proceedings under Article 21.5 of the DSU. The Appellate Body nevertheless held that, *even if* those obligations were applicable, non-compliance therewith – that is, failure to engage in consultations - would not deprive a panel of its authority to deal with and dispose of a dispute before it.[60] Accordingly, we do not agree with Mexico that in normal circumstances, failure to request consultations would vitiate the jurisdiction of a panel established pursuant to Article 21.5 of the DSU. Consequently, in the specific context of these proceedings, even if the United States were required to have requested consultations prior to requesting the establishment of a panel under Article 21.5 of the DSU, its failure to do so would not negate our jurisdiction. Therefore, we do not consider that the "guidance" Mexico requests would have any legal implications in the present circumstances (even if Mexico were challenging the jurisdiction of the Panel established at the request of the United States, which, as we noted above, it is not). In our view, therefore, the United States' characterization of Mexico's request for guidance as a request for an "advisory opinion" appears to be accurate.

7.39. In this respect, we are mindful that no provision of the DSU explicitly gives panels the power to issue advisory opinions or, indeed, to make any findings other than those required to resolve the dispute before them. Indeed, a number of provisions of the DSU suggest that panels should not make findings in respect of issues that are not in dispute.[61] For example, Article 3.7 of the DSU provides that the "aim of the dispute settlement mechanism is to secure a positive solution to a dispute". Similarly, Article 3.4 of the DSU stipulates that "[r]ecommendations or rulings made by the DSB shall be aimed at achieving a satisfactory settlement of the matter in accordance with the rights and obligations under this Understanding and under the covered agreements". Additionally, Article 7.1 of the DSU charges panels with making "such findings as will assist the DSB in making the recommendations or in giving the rulings provided for in that/those

[56] Mexico's first written submission, paras. 25-29; response to Panels' question No. 74, para. 81.
[57] United States' second written submission, paras. 8-10; comments on Mexico's response to Panels' question No. 74, para. 86.
[58] Appellate Body Report, *Mexico – Corn Syrup (Article 21.5 – US)*, para. 54.
[59] Mexico's response to Panels' question No. 74.
[60] Appellate Body Report, *Mexico – Corn Syrup (Article 21.5 – US)*, para. 65.
[61] See Appellate Body Report, *US – Wool Shirts and Blouses*, p. 19.

agreement(s)". In our view, these provisions make clear that the purpose of the dispute settlement system is to resolve disputes between Members.

7.40. This understanding of the scope of WTO dispute settlement has been confirmed by the Appellate Body. In *US – Wool Shirts and Blouses*, after noting that Article 3.2 of the DSU indicates that one of the functions of dispute settlement is to "clarify the existing provisions of [the covered] agreements in accordance with customary rules of interpretation of public international law", the Appellate Body explained that this provision is not meant "to encourage either panels or the Appellate Body to 'make law' by clarifying existing provisions of the WTO Agreement outside the context of resolving a particular dispute. A panel need only address those claims which must be addressed in order to resolve the matter in issue in the dispute".[62] This statement indicates that panels are generally not required or, indeed, empowered to engage with issues that are not in dispute between the parties and whose resolution would accordingly not contribute to the "prompt settlement"[63] of disputes.

7.41. In our view, given that Mexico has indicated that it is not challenging the jurisdiction of the Panel established pursuant to the United States' request, and given the Appellate Body's clarification that failure to consult would not in any event deprive a panel established pursuant to Article 21.5 of the DSU of its authority, the question on which Mexico seeks "guidance", that is, whether in the absence of agreement with the other party a Member is allowed to initiate an Article 21.5 compliance proceeding without requesting consultations, is not one which must be addressed in order to resolve the matter before us. Accordingly, we decline to set forth the guidance requested by Mexico.

7.4 The measure at issue

7.4.1 Elements of the measure at issue

7.42. The Panels now turn to describe in more detail the measure at issue in these proceedings. In this context, we will first identify the elements that constitute the measure at issue, and then proceed to describe them as relevant for the purposes of these proceedings.

7.43. We recall that in the original and the first compliance proceedings, the Tuna Measure was described as consisting of three elements, namely, (a) the DPCIA; (b) the relevant implementing regulations; and (c) the Hogarth ruling.[64] In the present proceedings, the United States' description of the 2016 Tuna Measure refers to the same three elements.[65] The only difference between the Tuna Measure as described in the original and first compliance proceedings and as described by the United States in the present proceedings is that in these proceedings the United States' reference to the implementing regulations includes the amendments made by the 2016 Rule.[66] Mexico's description of the components of the Measure, however, is less clear. Although in certain parts of its submissions, Mexico, like the United States, refers to the 2016 Tuna Measure as comprising the same three elements mentioned above[67], in other parts of its submissions, Mexico refers, in addition to those three elements, to two additional elements. First, in its panel request in these proceedings, Mexico refers, to "[a]ny implementing guidance, directives, policy announcements or any other document issued in relation to instruments [(a)] through [(c)] above, including any modifications or amendments in relation to those instruments".[68] Second, in certain parts of its submissions, Mexico refers to the alleged action of the United States in pressuring US retailers not to distribute Mexican tuna products.[69]

7.44. With respect to the first additional element cited in Mexico's panel request, that is, "[a]ny implementing guidance, directives, policy announcements or any other document issued in relation to instruments [(a)] through [(c)] above, including any modifications or amendments in relation to

[62] Appellate Body Report, *US – Wool Shirts and Blouses*, p. 19.
[63] Article 3.3 of the DSU.
[64] Panel Report, *US – Tuna II (Mexico)*, para. 2.1; Appellate Body Report, *US – Tuna II (Mexico)*, para. 172; Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 3.1; Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 6.7-6.8.
[65] United States' first written submission, para. 19.
[66] United States' first written submission, paras. 22-29.
[67] Mexico's first written submission, para. 118.
[68] WT/DS381/38, p. 2. See also Mexico's first written submission, para. 2.
[69] Mexico's first written submission, para. 149.

those instruments", we note that Mexico does not argue that, as a measure taken to comply with DSB recommendations and rulings within the meaning of Article 21.5 of the DSU, the 2016 Tuna Measure includes, in addition to the three elements cited above, "[a]ny implementing guidance, directives, policy announcements or any other document issued in relation to instruments [(a)] through [(c)] above, including any modifications or amendments in relation to those instruments" that the Panels would need to take into account in their analysis in these proceedings. Neither has Mexico presented any evidence of such directives, announcements, modifications or amendments to the Panels. As such, Mexico's description refers to this additional element in the abstract, without arguing that in fact there exists such an element which is subsumed within the definition of the measure taken to comply subject to these proceedings. Further, the claims and arguments that Mexico has presented in these proceedings do not in any way pertain to this alleged additional element of the 2016 Tuna Measure.

7.45. With regard to the second additional element, namely, the alleged action of the United States in pressuring US retailers not to distribute Mexican tuna products, we note, first, that, unlike the fourth element discussed above, this element is not included in the description of the measure at issue in Mexico's panel request. We also note that it is not clear whether Mexico is arguing that this element is, in the jurisdictional sense, part of the measure taken to comply in these proceedings. In response to a question from the Panels concerning whether Mexico was seeking separate findings from the Panels in respect of this alleged element of the Measure, Mexico stated that it was not.[70] Rather, Mexico explains that "[t]he action of the United States in pressuring retailers not to distribute Mexican tuna products is itself a measure implemented under and in relation to the 2016 tuna measure with the specific intent to impede the marketing of Mexican tuna products in the US market".[71] Although this argument suggests that Mexico sees this element as a measure, or as a part of the 2016 Tuna Measure, in the same response, Mexico also argues that these letters constitute additional evidence of the detrimental effect of the 2016 Tuna Measure. However, Mexico also states that since the United States acknowledges that the 2016 Tuna Measure has a detrimental effect on Mexican tuna products, "it is not necessary for the Panels to consider this evidence to rule on the issues before them".[72] For its part, at the Panels' joint substantive meeting with the parties, the United States argued that this alleged additional element falls outside the Panels' terms of reference. Moreover, the United States disagrees with Mexico's allegation that the US government has pressured US retailers not to sell Mexican products. The United States indicates that it invited US retailers to submit statements to be used in the context of the arbitration proceedings under Article 22.6 of the DSU in this dispute.[73] We note that the statements cited by Mexico were submitted to, and taken into account by, the Arbitrator in the mentioned arbitration proceedings.[74] As Mexico also acknowledges, none of the claims or arguments presented by Mexico in these compliance proceedings in any way pertain to this alleged additional element of the 2016 Tuna Measure.[75] Mexico has not explained how this alleged additional element interacts with the other elements of the 2016 Tuna Measure, and neither has it advanced any arguments concerning whether the alleged additional element stems exclusively from a legitimate regulatory distinction.

7.46. We recall that this second additional element of the 2016 Tuna Measure is not included in Mexico's panel request. We also note that Mexico did not respond to the United States' argument that this alleged additional element is not within the Panels' terms of reference. In the light of Mexico's own statement that the Panels need not consider this aspect of Mexico's claim in the light of the United States' concession that the 2016 Tuna Measure has a detrimental impact on Mexican tuna products, it would, in our view, at any rate be unnecessary to deal with this alleged additional element of the Measure in order to fulfil our functions under the DSU.

7.47. On the basis of the foregoing, we will assess parties' claims and arguments in relation to the 2016 Tuna Measure defined as consisting of (a) the DPCIA, (b) the relevant implementing regulations; and (c) the *Hogarth* ruling, which are the three elements of the Measure on which both parties agree, and to which both parties' claims and arguments pertain. We now turn to a detailed description of each of these three elements.

[70] Mexico's response to Panels' question No. 72.
[71] Mexico's response to Panels' question No. 72.
[72] Mexico's response to Panels' question No. 72.
[73] United States' response to Panels' question No. 32.
[74] Decision of the Arbitrator, *US – Tuna II (Mexico) (Article 22.6 – US)*, paras. 5.73 - 5.85.
[75] Mexico's response to Panels' question No. 72, para. 74.

7.4.2 Description of the measure at issue

7.48. As noted above, the 2016 Tuna Measure consists of (a) the DPCIA, (b) the implementing regulations as amended by the 2016 Rule, and (c) the *Hogarth* ruling. The panels and the Appellate Body in previous stages of this dispute have described the original and the 2013 Tuna Measure in detail.[76] In this section, the Panels describe the 2016 Tuna Measure only insofar as relevant for the purposes of resolving the claims raised in the present proceedings.

7.49. The 2016 Tuna Measure, like the previous versions of the Tuna Measure, pursues two objectives: first, to ensure that consumers are not misled or deceived about whether tuna products contain tuna that was caught in a manner that adversely affects dolphins; and, second, to contribute to the protection of dolphins, by ensuring that the US market is not used to encourage fishing fleets to catch tuna in a manner that adversely affects dolphins.[77] To this end, it conditions the use on a tuna product[78] of a dolphin-safe label upon certain requirements that vary depending on the fishing method by which tuna contained in the tuna product was harvested, the ocean area where it was caught, and the type of vessel used. The Measure also prohibits any reference to dolphins, porpoises, or marine mammals on the label of a tuna product if the tuna contained in that product does not comply with the labelling conditions provided for in the measure.[79]

7.50. The 2016 Tuna Measure sets out several substantive conditions for access to a dolphin-safe label. First, it disqualifies from being labelled all tuna products containing tuna harvested by two methods of fishing: (i) large-scale driftnet fishing on the high seas[80]; and (ii) vessels using purse seine nets to encircle or "set on" dolphins anywhere in the world[81]. Although the DPCIA's disqualification of tuna products derived from tuna caught by setting on dolphins was suspended in 2002 by virtue of administrative action[82], the Hogarth ruling overturned that action shortly thereafter[83], thereby restoring this condition of access to the US dolphin-safe labelling regime. The disqualification of tuna products containing tuna caught by setting on dolphins thus formed part of, and is unchanged as compared to, both the original and the 2013 Tuna Measure. Second, all other tuna products, that is, those containing tuna harvested by all other fishing methods, are potentially eligible for the dolphin-safe label, but become ineligible if they contain tuna caught in a

[76] Panel Report, *US – Tuna II (Mexico)*, paras. 2.1-2.33; Appellate Body Report, *US – Tuna II (Mexico)*, paras. 172-177; Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 3.1-3.52; Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 6.7-6.34.

[77] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.16; Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.525; Appellate Body Report, *US – Tuna II (Mexico)*, para. 325; Panel Report, *US – Tuna II (Mexico)*, paras. 7.401, 7.413, and 7.425.

[78] The DPCIA defines "tuna product" in Section 1385(c)(5) as a "food item which contains tuna and which has been processed for retail sale, except perishable sandwiches, salads, or other products with a shelf life of less than 3 days". In addition, for purposes of 50 CFR Section 216, "tuna product" means "any food product processed for retail sale and intended for human or animal consumption" containing one of the species of tuna listed in 50 CFR Sections 216.24(f)(2)(i) and (ii), and not including "perishable items with a shelf life of less than 3 days", (Exhibits MEX-02 and USA-02). Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, fn. 101 (citing Panel Report, *US – Tuna II (Mexico)*, paras. 7.60-7.61).

[79] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 6.8.

[80] DPCIA, 16 USC Section 1385(d)(1)(A), (Exhibit USA-1), 50 CFR Section 216.91(a)(2), (Exhibits USA-02, MEX-02); see also Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 6.9.

[81] 50 CFR Sections 216.91(a)(1)(iii), (a)(3)(i) and (a)(3)(ii)(A), (Exhibits USA-02, MEX-02). See also Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 6.9.

[82] According to Section 1385(h) of the DPCIA, the type of certification required for tuna products containing tuna harvested by large purse seine vessels in the ETP was subject to a finding by the US Secretary of Commerce on whether the intentional deployment on or encirclement of dolphins with purse seine nets was having a significant adverse impact on any depleted dolphin stock in the ETP. The US Secretary of Commerce initially found that setting on dolphins was not having a significant adverse effect on any depleted dolphin stock in the ETP. The effect of this finding was that tuna products containing tuna caught by setting on dolphins could be labelled dolphin-safe provided that the other conditions for access to the label were satisfied. Panel Report, *US – Tuna II (Mexico)*, para. 2.18; Appellate Body Report, *US – Tuna II (Mexico)*, para. 176.

[83] The finding of the US Secretary of Commerce was overruled in *Earth Island Institute v. Evans*, on the basis that the Secretary failed to conduct statutorily-mandated studies and that the best available scientific evidence did not support the Secretary's finding. The ruling was affirmed on appeal in the *Hogarth* ruling. As a result, Section 1385(h) requires that tuna products derived from tuna harvested by large purse seine vessels in the ETP may be labelled dolphin-safe only if the captain and an AIDCP-approved observer certify both that there was "no setting on dolphins" and that there were "no dolphins killed or seriously injured". Panel Report, *US – Tuna II (Mexico)*, paras. 2.15-2.20; Appellate Body Report, *US – Tuna II (Mexico)*, paras. 175-176).

set or other gear deployment during which a dolphin was killed or seriously injured.[84] The 2016 Tuna Measure also prescribes a number of certification and tracking and verification requirements relating to the substantive conditions.

7.51. With respect to certification, the 2016 Tuna Measure provides that, for a tuna product to be labelled dolphin-safe, it must be accompanied by certain certifications that the eligibility requirements were met. Under 50 CFR Section 216.91(a)(3), for fishing trips that began on or after 21 May 2016, captains[85] of all vessels in all fisheries other than the large purse seine[86] fishery in the Eastern Tropical Pacific Ocean (ETP)[87] and a large-scale driftnet fishery[88] must certify, that:

> No purse seine net or other fishing gear was intentionally deployed on or used to encircle dolphins during the fishing trip in which the tuna were caught, and that no dolphins were killed or seriously injured in the sets or other gear deployments in which the tuna were caught.[89]

7.52. In these fisheries, certification by an independent observer may also be required, under certain circumstances described below.[90]

7.53. Additionally, under the 2016 Tuna Measure, captains of vessels operating outside the ETP large purse seine fishery (and high seas driftnet fisheries) must certify, in addition to the above, that they have completed the National Marine Fisheries Service (NMFS) Tuna Tracking and Verification Program (TTVP) dolphin-safe training course (the Captain Training Course).[91] The course, which can be accessed on the Internet in English, Mandarin Chinese, Indonesian, Japanese, Korean, Spanish, Tagalog, Thai, and Vietnamese, covers four main topics: identifying dolphins of the taxonomic family *Delphinidae*; identifying intentional gear deployment on or encirclement of dolphins; identifying dolphin mortality and serious injury; and physically separating dolphin-safe tuna from non-dolphin-safe tuna from the time of capture through unloading.[92] The contents of the Captain Training Course are discussed further below.[93]

7.54. For large purse seine vessels in the ETP, certification is required from both the vessel captain and an International Dolphin Conservation Program (IDCP)-approved observer[94] that (a) no dolphins were killed or seriously injured during the sets in which the tuna was caught, and (b) none of the tuna was caught on a trip using a purse seine net intentionally on or to encircle dolphins.[95]

7.55. With respect to tracking and verification, tuna products are eligible to receive a dolphin-safe label only if they meet the tracking and verification requirements provided for in the 2016 Tuna Measure.

7.56. The 2016 Tuna Measure, like the 2013 Tuna Measure, requires that dolphin-safe and non-dolphin-safe tuna, wherever and however caught, be segregated from the moment of catch through the entire processing chain.[96] However, the requirements pursuant to which tuna must be

[84] See 50 CFR Sections 216.91(a)(1)(ii), (a)(3)(ii)(A)-(B), (a)(3)(iii)(A), (Exhibits USA-02, MEX-02); Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 6.9.

[85] 50 CFR Section 216.91(a)(3)(A), (Exhibits USA-02, MEX-02).

[86] Large purse seine vessels are defined as vessels with a carrying capacity greater than 400 st (362.8 mt). 50 CFR Section 216.91(a), (Exhibits USA-02, MEX-02).

[87] Pursuant to Section 1385(c)(2) of the DPCIA, the Eastern Tropical Pacific Ocean means "the area of the Pacific Ocean bounded by 40 degrees north latitude, 40 degrees south latitude, 160 degrees west longitude, and the western coastlines of North, Central, and South America".

[88] In the 2016 Tuna Measure, these fisheries are combined in the category "Other fisheries". 50 CFR 216.91(a)(3), (Exhibits USA-02, MEX-02).

[89] Under the 2013 Tuna Measure, captains were only required to certify that no dolphins were killed or seriously injured in the gear deployment(s) in which the tuna was caught. Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 6.10.

[90] See paras. 7.67to 7.69below.

[91] 50 CFR Section 216.91(a)(3)(iii)(B), (Exhibits USA-02, MEX-02).

[92] See NOAA, Dolphin-Safe Captain's Training Course (March 23, 2016), (Exhibits USA-10, MEX-56).

[93] See paras. 7.585 to 7.588 below.

[94] 50 CFR Section 216.92(b)(2)(iii), (Exhibits USA-02, MEX-02).

[95] 50 CFR Section 216.91(a)(1), (Exhibits USA-02, MEX-02).

[96] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 6.12; 50 CFR Section 216.92(c)(1)-(3), (Exhibits USA-02, MEX-02).

segregated, tracked, and verified differ as between tuna caught in the ETP large purse seine fishery, on the one hand, and other fisheries, on the other hand. This is because the tracking and verification of tuna caught in the ETP large purse seine fishery must be conducted consistently with the Agreement on the International Dolphin Conservation Program (AIDCP) Resolution to Adopt the Modified System for Tracking and Verification of Tuna (AIDCP Tracking and Verification System).[97] However, the tracking and verification of tuna caught in other fisheries must be conducted according to different regulations established principally in the implementing regulations.

7.57. The AIDCP Tracking and Verification System is based on the use of Tuna Tracking Forms (TTFs). Every TTF has a unique number. On every fishing trip, ETP large purse seine vessels must maintain two forms, one to record tuna harvested in dolphin-safe sets, and one to record tuna harvested in non-dolphin-safe sets.[98] Under the AIDCP, the determination of the dolphin-safe status of tuna is made at the end of each set.[99] The IDCP-approved observer and the vessel engineer are required to initial each entry following each set.[100] Once the tuna harvested in a particular set is on board the fishing vessel, it is loaded into wells designated as either dolphin-safe or non-dolphin-safe, and recorded on the trip TTF.[101] Tuna from one set can be loaded into a well containing tuna from another set and tuna from one set can be loaded into multiple wells, provided that the designations are correct (that is, that tuna harvested in dolphin-safe sets is stored only in wells designated as dolphin-safe, and tuna harvested in non-dolphin-safe sets is stored only in wells designated as non-dolphin-safe).[102] At the end of each fishing trip, the IDCP-observer and the captain of the fishing vessel sign both TTFs to certify that the information on the forms is accurate.[103] Trans-shipments of tuna (i.e. transfer of tuna at sea before completion of the fishing trip) are permitted, but must be documented on the TTFs of both the transferring and the receiving vessels.[104]

7.58. When tuna is unloaded at port, dolphin-safe and non-dolphin safe tuna must be unloaded into separate bins, and each bin must be identified with the corresponding TTF number. The AIDCP Tracking and Verification System does not prohibit tuna stored in different wells on-board the vessel from being comingled in individual bins, or tuna stored in the same well on-board the vessel from being separated into different bins. The only requirement is that dolphin-safe and non-dolphin-safe tuna be stored in separate bins.[105]

7.59. At the time of unloading, the relevant TTF must be transmitted to the competent authority of an AIDCP party.[106] The relevant TTF number must then accompany the tuna through sales of portions of the catch, and through every step of processing of those portions.[107] The relevant national authority must report any subsequent transfer of ownership to the AIDCP Secretariat, specifying, *inter alia*, the TTF number(s).[108] During storage and processing, dolphin-safe and non-dolphin-safe tuna cannot be processed on the same lines at the same time, and processors must maintain records complete enough to allow the lot numbers of processed tuna to be traced back to

[97] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 6.12.
[98] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 3(2), (Exhibit USA-90); Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 6.19.
[99] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 4(1), (Exhibit USA-90).
[100] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 6.19.
[101] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 4(3), (Exhibit USA-90).
[102] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), (Exhibit USA-90).
[103] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 6.19.
[104] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 4(5), (Exhibit USA-90).
[105] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 5(6), (Exhibit USA-90).
[106] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 5(2)-(5), (Exhibit USA-90).
[107] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 5(7), (Exhibit USA-90).
[108] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 5(7), (Exhibit USA-90).

the corresponding TTF number.[109] Tuna exported as AIDCP dolphin-safe must be accompanied by a certificate of its dolphin-safe status issued by a competent authority, which must also include a reference to the relevant TTF number.[110]

7.60. The AIDCP Tracking and Verification System also provides that the national programs established by the parties to the AIDCP should include periodic audits and spot checks for tuna products, as well as mechanisms for cooperation among national authorities.[111]

7.61. The AIDCP Tracking and Verification System is directly applicable to US-flagged large purse seine vessels in the ETP by virtue of 50 CFR Section 216.93. Foreign-flagged large purse seine vessels catching tuna in the ETP are also required to comply with the System. Under the 2016 Tuna Measure, tuna products containing tuna harvested in the ETP by non-US-flagged large purse seine vessels may be labelled dolphin-safe only if the vessel belongs to a nation that is a party to the AIDCP and is therefore subject to the AIDCP Tracking and Verification System.[112] Additionally, the NOAA Form 370 requires that imports of tuna harvested by non-US-flagged ETP large purse seine vessels, or of tuna products derived from the same, be accompanied by documentation from the appropriate AIDCP member country certifying that there was an IDCP-approved observer on board the vessel at all times, and listing the numbers of the associated TTFs. Thus, under the Measure, tuna products containing tuna caught by both US-flagged and non-US-flagged large purse seine vessels in the ETP have access to the dolphin-safe label only if the handling of the TTFs and the tracking and verification of tuna are conducted consistent with the AIDCP Tracking and Verification System.[113]

7.62. Under the 2016 Tuna Measure, tuna caught in a fishery other than the ETP large purse seine fishery is not required to comply with the requirements of the AIDCP Tracking and Verification System. Rather, it is subject to what the United States refers to as the "NOAA regime".[114] To be eligible for a dolphin-safe label under the NOAA regime, tuna caught outside the ETP large purse seine fishery must be kept physically separate from non-dolphin-safe tuna from the time of catch, through offloading and processing.[115]

7.63. Under the NOAA regime, all tuna product imported into the United States, regardless of where the tuna was caught and whether the dolphin-safe label is used, must be accompanied by a NOAA Form 370 (Form 370), which designates, *inter alia*, whether the tuna is dolphin-safe.[116] Dolphin-safe and non-dolphin-safe tuna products must have separate Form 370s. For tuna product designated dolphin-safe, Form 370 contains the necessary certifications, and requires identification of the harvesting vessel, the fishing gear used, and the trip on which the tuna was caught.[117]

7.64. The NOAA regime requires US tuna processors to submit monthly reports to the US Tuna Tracking and Verification Program for all tuna received at their processing facilities.[118] These reports contain the same information as is contained in the Form 370, as well as certain additional information, such as unloading dates and the condition of the tuna products.[119] Additionally, NMFS is empowered to undertake verification activities, including dockside inspections of vessels, monitoring of Form 370s, monitoring of cannery reports, audits of US canneries, and retail market spot checks.[120] Other US agencies may conduct on-board inspections on the high seas and in US

[109] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 6(b)-(c), (Exhibit USA-90).
[110] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 6(d), (Exhibit USA-90).
[111] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 7, (Exhibit USA-90).
[112] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 6.20.
[113] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 6.20.
[114] United States' first written submission, para. 143.
[115] 50 CFR Sections 219.93(c)(2)-(3) and d(4), (Exhibits USA-02, MEX-02).
[116] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 6.13; 50 CFR Sections 216.24(f)(2)(i)-(ii) (Exhibit USA-03); 50 CFR Section 216.93(f) (Exhibits USA-02, MEX-02); Form 370 (Exhibit USA-04)
[117] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 6.25.
[118] Panel Report, *US – Tuna II (Mexico)*, para. 2.32; 50 CFR Section 216.93(d)-(e) (Exhibits USA-02, MEX-02).
[119] Panel Report, *US – Tuna II (Mexico)*, para. 2.32; 50 CFR Section 216.93(d)-(e) (Exhibits USA-02, MEX-02).
[120] 50 CFR Section 216.93(g)(3); see also 50 CFR Sections 216.93(d)(1)-(3) and 216.93(f) (Exhibits USA-02, MEX-02).

waters. In its submissions on this aspect of the Measure, Mexico noted that US agencies lack authority to audit non-US fishing vessels, carrier vessels, and processors (i.e. canneries).[121]

7.65. Additionally, the 2016 Tuna Measure establishes new chain of custody requirements for tuna products produced from tuna caught outside the ETP large purse seine fishery, and which are to be marketed as dolphin-safe. Specifically, US processors and importers of such tuna products must collect and retain for two years information on each point in the chain of custody of the tuna or tuna product, including information on all storage facilities, trans-shippers, processors, and wholesalers/distributors.[122] The retained information must be provided to NMFS upon request, and must be sufficient for NMFS to conduct a trace-back of any tuna product marketed as dolphin-safe to verify that the tuna product in fact meets the dolphin-safe labelling requirements. The information must also be sufficient to enable NMFS to trace back any non-dolphin-safe tuna loaded onto the harvesting vessel back to one or more storage wells or other storage locations for a particular fishing trip to prove that such non-dolphin-safe tuna was kept physically separate from dolphin-safe tuna through unloading. These new requirements apply to all tuna products labelled dolphin-safe if those products contain tuna harvested on a fishing trip beginning on or after 21 May 2016.

7.66. Breach of these requirements may lead to the imposition of sanctions. In particular, sanctions for offering for sale or export tuna products falsely labelled dolphin-safe may be assessed against any producer, importer, exporter, distributor, or seller who is subject to the jurisdiction of the United States.[123] Violators may be prosecuted under the DPCIA provisions directly, under federal provisions prohibiting false statements and smuggling, or under federal labelling standards.[124]

7.67. Additional certification and tracking and verification requirements may be imposed on tuna and tuna products made from tuna caught outside the ETP large purse seine fishery pursuant to the so-called "determination provisions". In the 2016 Tuna Measure, there are two relevant determination provisions: one concerning certification[125], and one concerning tracking and verification.[126]

7.68. With respect to certification, under 50 CFR Section 216.91(a)(3)(v) provisions, NOAA may require an observer certification in addition to the captain certification where the Assistant Administrator has determined that a fishery other than the ETP large purse seine fishery has either a regular and significant association between dolphins and tuna (similar to the association between dolphins and tuna in the ETP) or a regular and significant mortality or serious injury of dolphins is occurring. The observer must be a participant in a national or international program acceptable to the Assistant Administrator. The Assistant Administrator retains the discretion to determine that an observer certification is unnecessary.

7.69. With respect to tracking and verification, the determination provisions state that, where the Assistant Administrator has made a certification of regular and significant association or regular and significant mortality or serious injury under 50 CFR Section 216.91(a)(3)(v), any imported tuna or tuna product made from tuna caught on a trip beginning on or more than 60 days after the publication of a notice of the determination in the Federal Register, and which is intended to be labelled as dolphin-safe, must be accompanied by valid documentation signed by a representative of the vessel flag nation or the processing nation (if processed in another nation) certifying that (a) the catch documentation recorded on the Form 370 is correct; (b) the tuna or tuna products meet the US dolphin-safe labelling standards; and (c) the chain of custody information is

[121] Mexico's first written submission, para. 297.
[122] 50 CFR Section 216.91(a)(5), (Exhibits USA-02, MEX-02).
[123] 50 CFR Section 216.93(g)(3) (Exhibits USA-02, MEX-02); Form 370 (Exhibit USA-04); United States' response to Panels' question No. 29, paras. 148-149.
[124] NOAA Form 370 (Exhibit USA-04); 16 USC. § 1375(a)(1) (Exhibit USA-174); 16 USC Section 3372(d) (Exhibit USA-169); 16 USC Section 1375(b) (Exhibit USA-174); 18 USC Section 3571 (Exhibit USA-167); US Department of Commerce, Civil Monetary Penalty Adjustments for Inflation, 81 Fed. Reg. 36,454 (June 7, 2016) (Exhibit USA-170); 16 USC Section 3373(d)(3) (Exhibit USA-171); 16 USC Section 3374(a)(1) (Exhibit USA-172); 18 USC Section 3571 (Exhibit USA-167); 18 USC Section 545 (Exhibit USA-166); 18 USC Section 1001(a) (Exhibit USA-173).
[125] 50 CFR Section 216.91(a)(3)(v), (Exhibits USA-02, MEX-02).
[126] 50 CFR Section 216.91(a)(5)(ii), (Exhibits USA-02, MEX-02).

correct.[127] The Panels examine these additional requirements in more detail later in these Reports.[128]

7.70. In summary, there are four central elements or aspects of the 2016 Tuna Measure:[129]

a. The "eligibility criteria", pursuant to which tuna products made from tuna caught by (a) setting on dolphins and (b) driftnets in the high seas are disqualified from accessing a dolphin-safe label, while tuna products made from tuna caught by other fishing methods are provisionally eligible;

b. The "certification requirements", which require certain documentation to accompany tuna intended to be labelled as dolphin-safe;

c. The "tracking and verification requirements", which impose certain conditions concerning the segregation of dolphin-safe and non-dolphin-safe tuna from the time of catch through off-loading, processing, and sale;

d. The "determination provisions", which allow for additional certification and tracking and verification requirements to be imposed in respect of tuna caught outside the ETP large purse seine fishery under certain circumstances.

7.71. Of course, these elements form part of a single measure and thus work together towards the same objectives.[130] They are highly interconnected and interrelated. For example, as the Appellate Body emphasized in the first compliance proceedings, the two substantive conditions for access to the dolphin-safe label – namely, the conditions of "no setting on dolphins" and "no dolphins killed or seriously injured" – are both defined by, and verified through, the associated certification and tracking and verification requirements.[131] Accordingly, in conducting our assessment of the WTO-consistency of the 2016 Tuna Measure, we will carefully consider both the individual elements of the 2016 Tuna Measure and the way in which these elements work together and mutually reinforce one another.[132] We will examine the Measure as a whole, in an integrated manner[133], taking account of the overall architecture of the dolphin-safe labelling regime.[134]

7.5 Claim under Article 2.1 of the TBT Agreement

7.5.1 Introduction: "technical regulation", "like products", and "detrimental impact"

7.72. As noted above, the United States asks the Panels to find that the 2016 Tuna Measure brings the United States into compliance with its WTO obligations, including Article 2.1 of the TBT Agreement. Mexico, however, asks the Panels to find that the 2016 Tuna Measure is WTO-inconsistent, including under Article 2.1 of the TBT Agreement.

7.73. In its report in the first compliance proceedings in this dispute, the Appellate Body confirmed that in order to establish a violation of Article 2.1 of the TBT Agreement, a complainant must establish that (a) the measure at issue is a technical regulation within the meaning of Annex 1.1 to the TBT Agreement; (b) the relevant products are "like" products; and (c) the measure at issue accords less favourable treatment to imported products than to the relevant group of like products.[135] Moreover, the Appellate Body stated that the "treatment no less favourable" element of the analysis must be addressed in two distinct steps. First, a panel must determine whether the challenged measure modifies the conditions of competition to the detriment of the relevant imported products *vis-à-vis* like products of domestic origin and/or like products originating in any other country.[136] If the panel makes such a finding, then it must proceed to determine whether the

[127] 50 CFR 216.91(a)(5)(ii), (Exhibits USA-02, MEX-02).
[128] See Section 7.8.4 below.
[129] We note that these same four elements or aspects were also central in the first compliance proceedings.
[130] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.105.
[131] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.17.
[132] See *e.g.* Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.265.
[133] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.20.
[134] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.20.
[135] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.25.
[136] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.26.

detrimental impact on imports stems exclusively from a legitimate regulatory distinction rather than reflecting discrimination against the group of imported products.[137]

7.74. The parties agree that the 2016 Tuna Measure, like the previous versions of the Tuna Measure, is a technical regulation within the meaning of Annex 1.1 to the TBT Agreement. They also agree that the relevant products, i.e. Mexican tuna products on the one hand and tuna products produced by the United States and other countries on the other hand, are "like".[138] We do not see that the facts, including the overall architecture and structure of either the original or the 2013 Tuna Measure, or the nature of the products at issue have changed in any way that would call these conclusions into doubt. The parties have not suggested that this would be the case. Accordingly, we agree with the parties that the 2016 Tuna Measure is a technical regulation, and that the relevant products are "like".

7.75. The parties also agree that the 2016 Tuna Measure modifies the conditions of competition to the detriment of Mexican tuna products in the US market.[139] Specifically, the parties agree that the key elements of the original and 2013 Tuna Measures – in particular the disqualification of all tuna caught by setting on dolphins from using a dolphin-safe label, and the provisional qualification of tuna caught by other fishing methods to use such a label – and the relevant features of the US market for tuna remain unchanged, so that most Mexican tuna products are still being excluded from access to the dolphin-safe label, whereas most like products from the United States and other Members are still eligible for such label.[140]

7.76. In this connection, we recall that in the first compliance proceedings, the Appellate Body explained that:

> [A]ccess to the dolphin-safe label constitutes an advantage on the US market for tuna products by virtue of that label's significant commercial value. We further recall that, in the original proceedings, the Appellate Body relied on the following factual findings by the original panel: (i) the Mexican tuna cannery industry is vertically integrated, and the major Mexican tuna products producers and canneries own their vessels, which operate in the ETP; (ii) at least two thirds of Mexico's purse seine tuna fleet fishes in the ETP by setting on dolphins and is therefore fishing for tuna that would not be eligible to be contained in a dolphin-safe tuna product under the US dolphin-safe labelling provisions; (iii) the US fleet currently does not practice setting on dolphins in the ETP; and (iv) as the practices of the US and Mexican tuna fleets currently stand, most tuna caught by Mexican vessels, being caught in the ETP by setting on dolphins, would not be eligible for inclusion in a dolphin-safe product under the US dolphin-safe labelling provisions, while most tuna caught by US vessels is potentially eligible for the label. These various factual elements thus supplied the foundation for the Appellate Body's finding of detrimental impact.[141]

7.77. Like the parties, we do not see that there has been any relevant change in these factual circumstances. Indeed, we agree with the parties that the 2016 Tuna Measure maintains the overall architecture and structure of the original and 2013 Tuna Measures – in particular, it maintains the regulatory distinction between tuna products derived from tuna caught by setting on dolphins and tuna products derived from tuna caught by other fishing methods. Thus, although the 2016 Tuna Measure has introduced new requirements in respect of tuna products made from tuna caught outside the ETP, the distinction between tuna caught by setting on dolphins, which (together with tuna caught by high seas driftnet fishing) is ineligible to receive a dolphin-safe

[137] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.26.

[138] Panel Report, *US – Tuna II (Mexico)*, para. 7.251; Appellate Body Report, *US – Tuna II (Mexico)*, paras. 199; Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.71. The Appellate Body in the first compliance proceedings observed that the United States' appeal with respect to the interpretation of Article 2.1 of the TBT Agreement did not concern these issues, and accordingly treated them as settled. Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.25.

[139] United States' first written submission, para. 69; Mexico's first written submission, para. 203.

[140] United States' response to Panels' question No. 109, para. 381; Mexico's response to Panels' question No. 109, para. 217.

[141] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.236 (internal citations omitted).

label, and tuna caught by other fishing methods, which is provisionally eligible for a dolphin-safe label, remains in effect.[142]

7.78. In the light of this, and given the parties' agreement that the relevant factual situation has not changed from the original or the first compliance proceedings, we find that, by excluding most Mexican tuna products from access to the dolphin-safe label, while granting conditional access to such label to like products from the United States and other countries, the 2016 Tuna Measure, similar to the original and the 2013 Tuna Measure, modifies the conditions of competition to the detriment of Mexican tuna products in the US market.[143]

7.79. The parties' disagreement as to the WTO-consistency of the 2016 Tuna Measure centres on the question of whether the detrimental impact caused by the 2016 Tuna Measure nevertheless does not accord treatment less favourable to Mexico within the meaning of Article 2.1 of the TBT Agreement, because such detrimental impact stems exclusively from a legitimate regulatory distinction. This question is at the heart of these proceedings. The parties, however, have very different understandings of the legal standard to be applied in this part of the analysis under Article 2.1 of the TBT Agreement. Accordingly, we now turn to consider the proper meaning of the "legitimate regulatory distinction" test on the basis of the text of Article 2.1 and the Appellate Body's guidance in the previous stages of this dispute.

7.5.2 "Legitimate regulatory distinction": the applicable legal standard

7.80. As noted above, the Appellate Body has clarified that the existence of detrimental impact is not sufficient to establish a violation of Article 2.1 of the TBT Agreement. Rather, if a panel determines that a measure has modified the conditions of competition to the detriment of imported products *vis-à-vis* like products of domestic origin and/or like products originating in any other country, then the panel must proceed to determine whether the detrimental impact on imports stems exclusively from a legitimate regulatory distinction rather than reflecting discrimination against the group of imported products.[144]

7.81. In this connection, the Appellate Body has repeatedly emphasized that the specific context provided by other provisions of the TBT Agreement is instructive in understanding the expression "treatment no less favourable" in Article 2.1. According to the Appellate Body, the specific context provided by, in particular, Annex 1.1, Article 2.2, and the second, fifth, and sixth recitals of the preamble, supports the view that Article 2.1 does not operate to prohibit *a priori any and every* restriction on international trade. Moreover, in the Appellate Body's view, the sixth recital sheds light on the meaning and ambit of the "treatment no less favourable" requirement in Article 2.1 by making clear that technical regulations may pursue legitimate objectives but must not be applied in a manner that would constitute a means of arbitrary or unjustifiable discrimination. On the basis of these considerations, the Appellate Body has clarified that Article 2.1 should not be read to mean that all regulatory distinctions would *per se* constitute less favourable treatment within the meaning of Article 2.1.[145] Rather, some distinctions that entail detrimental impact may not give rise to less favourable treatment under Article 2.1. This would be the case, in particular, where the detrimental impact on imports stems exclusively from a legitimate regulatory distinction.[146]

7.82. The Appellate Body has stated that in determining whether the detrimental impact on imports stems exclusively from a legitimate regulatory distinction, a panel must carefully scrutinize whether the technical regulation at issue is even-handed in its design, architecture, revealing structure, operation, and application in the light of the particular circumstances of the case. The Appellate Body has pointed out that where a regulatory distinction is not designed and applied in an even-handed manner – because, for example, it is designed or applied in a manner that constitutes a means of arbitrary or unjustifiable discrimination – that distinction cannot be considered "legitimate", and thus the detrimental impact will reflect discrimination proscribed under Article 2.1. Therefore, a measure that involves "arbitrary or unjustifiable discrimination" would not be designed and applied in an "even-handed manner". At the same time, according to the Appellate Body, the fact that a measure is designed in a manner that constitutes a means of

[142] The United States acknowledges this point. United States' first written submission, para. 29.
[143] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.238.
[144] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.26.
[145] Appellate Body Reports, *US – Clove Cigarettes*, para. 169; *US – Tuna II (Mexico)*, para. 211; *US – COOL*, para. 268.
[146] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.30.

arbitrary or unjustifiable discrimination is *not* the only way in which a measure may lack even-handedness, such that the detrimental impact cannot be said to stem exclusively from legitimate regulatory distinctions.[147] Rather, it is *one* of the ways to determine whether the measure is even-handed and therefore its detrimental impact stems exclusively from a legitimate regulatory distinction.[148]

7.83. The Panels note that, in the first compliance proceedings in this dispute, the Appellate Body explained that, in interpreting and applying the "treatment no less favourable" element of Article 2.1 of the TBT Agreement, and in particular in assessing whether the identified detrimental impact stems exclusively from a legitimate regulatory distinction, a panel does not err by assessing whether the detrimental impact can be reconciled with, or is rationally related to, the policy objective pursued by the measure at issue, so long as, in doing so, it does not preclude consideration of other factors that may also be relevant to the analysis.[149] Similarly, the Appellate Body stated that "depending on the nature of the measure at issue and the circumstances of the case at hand, additional factors – beyond the question of whether the discrimination can be reconciled with the policy objective – could also be relevant to the analysis of whether the discrimination is arbitrary or unjustifiable".[150] We understand the Appellate Body as meaning that, in assessing whether a measure is "even-handed", a panel *may* consider whether the measure/regulatory distinction causing the detrimental impact is designed or applied in a manner that constitutes a means of "arbitrary or unjustifiable discrimination". *One* way of assessing this is by considering whether there is a rational relationship between the discrimination and the objectives pursued by the measure. However, this is not the *only* way in which "arbitrary or unjustifiable discrimination" may be assessed.

7.84. Having made these observations, the Appellate Body in the first compliance proceedings went on to recall that in the original proceedings in this dispute, the United States sought to explain that the original Tuna Measure was even-handed, and that the detrimental impact did stem exclusively from a legitimate regulatory distinction by introducing the notion of "calibration". In particular, the United States contended that the original Tuna Measure was even-handed because the distinctions that it drew between different tuna fishing methods and different areas of the ocean could be explained or justified by differences in the risks to dolphins associated with such fishing methods and areas of the ocean. This, in turn, led the Appellate Body in the original proceedings to examine the legitimacy of the original Tuna Measure's regulatory distinctions through the lens of the concept of "calibration".[151] While emphasizing that "calibration" does not constitute a separate legal test, the Appellate Body in the first compliance proceedings nevertheless held that there was a special relevance in those Article 21.5 proceedings in conducting an assessment of whether, under the 2013 Tuna Measure, the differences in labelling conditions for tuna products containing tuna caught by large purse-seine vessels in the ETP, on the one hand, and for tuna products containing tuna caught by other fishing methods in other fisheries, on the other hand, are "calibrated" to the differences in the likelihood that dolphins will be adversely affected in the course of tuna fishing operations by different vessels, using different fishing methods, in different areas of the ocean.[152] The Appellate Body then repeatedly emphasized that, in its view, the appropriate way, in the context of this dispute, for a panel to assess whether the detrimental impact caused by the Tuna Measure stems exclusively from a legitimate regulatory distinction is to assess whether the Measure is properly "calibrated" to the risks to dolphins arising from different fishing methods in different areas of the ocean.[153] To this end, the Appellate Body explained that a panel should conduct an analysis involving: first, an identification of whether different tuna fishing methods in different areas of the oceans pose different risks to dolphins; and, second, an examination of whether, in the light of these risks, the different treatment created by the relevant regulatory distinctions show that, as between different groups of tuna products, the treatment accorded to each group is commensurate with the relevant risks, taking account of the objectives of the Measure.[154]

[147] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.31.
[148] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.94.
[149] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.95.
[150] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.93 (citing Appellate Body Report, *EC – Seal Products*, para. 5.321).
[151] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.98.
[152] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.101.
[153] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.155.
[154] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.155.

7.85. In the light of these statements of the Appellate Body, both parties have argued, and we agree, that the question whether the 2016 Tuna Measure is "calibrated" to the risks to dolphins arising from different fishing methods in different areas of the ocean is central to our analysis in these proceedings.[155] However, the parties have very different views about how the calibration analysis should be understood and applied. Indeed, as the United States has noted, the parties appear to read the Appellate Body's report in the first compliance proceedings, and the legal test set out therein, "very differently".[156] In particular, although the parties agree that "calibrated" means "appropriately tailored to" or "commensurate with" the relevant risks[157], they fundamentally disagree about *how* that test should be applied, and in particular as *to what* the 2016 Tuna Measure must be calibrated to.

7.86. In the United States' view, the calibration analysis essentially requires the Panels to assess whether, under the 2016 Tuna Measure, the differences in labelling conditions for tuna products containing tuna caught by large purse-seine vessels in the ETP, on the one hand, and for tuna products containing tuna caught by other fishing methods in other areas of the ocean, on the other hand, are calibrated to the differences in the likelihood that dolphins will be adversely affected in the course of tuna fishing operations by different vessels, using different fishing methods, in different areas of the ocean.[158] According to the United States, the Appellate Body has explicitly recognized that the United States' tuna labelling regime will not violate Article 2.1 of the TBT Agreement if it is properly calibrated to the risks to dolphins arising from different fishing methods in different areas of the ocean.[159] The United States contends that under the applicable legal standard, the Panels must analyse the relative harms in respect of observed mortality or serious injury, as well as a comparative assessment of unobserved harms, caused by different fishing methods in different areas of the world's oceans.[160] The Panels must then evaluate the relevant regulatory distinctions in light of the risks of overall harm to dolphins, and determine whether those distinctions are explained by, and appropriately tailored to, the relevant risks.[161] In other words, the Panels, having analysed the different risks to dolphins caused by different fishing methods in different areas of the ocean, should assess whether the relevant regulatory distinctions address these risks in a way that is commensurate with the respective risk profiles of the different fisheries.[162] In this regard, the United States submits that if the risks to dolphins across fisheries were the same, but the requirements imposed by the 2016 Tuna Measure were different, then the Panels could conclude that the relevant regulatory distinctions are not calibrated.[163]

7.87. Mexico has a different understanding of the applicable legal standard. According to Mexico, even-handedness is the central concept for determining whether detrimental treatment caused by a measure stems exclusively from a legitimate regulatory distinction.[164] In Mexico's view, the "even-handedness" standard should be applied through a "multi-factor legal test".[165] For Mexico, calibration, while important, is not a synonym for even-handedness, but rather only one "factor" of the applicable legal test.[166] Thus, according to Mexico, the calibration test complements, but does not replace the assessment of whether the regulatory distinctions are applied in a manner that constitutes a means of arbitrary or unjustifiable discrimination, for example, on the basis of whether or not they can be reconciled with, or are rationally related to, the policy objectives of the measure.[167]

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[155] Mexico's first written submission, para. 212; United States' first written submission, para. 67.
[156] United States' comments on Mexico's response to Panels' question No. 86, para. 145. Mexico also acknowledges that "Mexico and the United States disagree on the appropriate role of calibration in this dispute". Mexico's second written submission, para. 15.
[157] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.252 and 7.253.
[158] United States' second written submission, para. 14 (citing Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.101).
[159] United States' third written submission, para. 10 (citing Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.155).
[160] United States' response to Panels' question No. 44, para. 227.
[161] United States' response to Panels' question No. 107, para. 377.
[162] United States' first written submission, para. 15 (citing Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.126 and 7.161).
[163] United States' response to Panels' question No. 107, paras. 377 and 378.
[164] Mexico's second written submission, para. 20.
[165] Mexico's second written submission, para. 20.
[166] Mexico's second written submission, para. 15.
[167] Mexico's first written submission, para. 215.

7.88. Mexico therefore urges the Panels to take into account a number of factors in applying the legal test for even-handedness.[168] Certainly, one of these factors is whether or not the discriminatory effects of the Tuna Measure's regulatory distinctions can be justified on the basis that they are calibrated to different relevant circumstances.[169] However, another question is whether or not the discriminatory effects constitute arbitrary or unjustifiable discrimination on the basis that the regulatory distinctions cannot be reconciled with, or rationally connected to, the measure's policy objectives (what we, for brevity, call the "rational connection" test).[170] In Mexico's view, these questions do not create independent or discrete legal tests; rather, they are elements within the overall analysis of whether or not the Tuna Measure is even-handed, and they must be assessed cumulatively, in relation to one another, on a common record of facts and circumstances.[171] In response to a question from the Panels, Mexico contends that the calibration analysis "can and must" occur within the "constraints" of the rational connection test for arbitrary and unjustifiable discrimination.[172]

7.89. In this respect, Mexico considers that the United States is incorrect to the extent that it attempts to narrow the legal analysis to a single-factor test, i.e., the question of whether or not the 2016 Tuna Measure is calibrated to the relative risks to dolphins in different fisheries.[173] Mexico also considers that the United States is incorrect insofar as its proposed legal test would preclude the Panels from assessing the relationship between the detrimental impact caused by the relevant regulatory distinctions and the objectives pursued by the measure.[174] In this connection, Mexico observes that it is only if consumers are able to accurately distinguish between tuna caught in conditions that are harmful to dolphins from tuna caught in conditions that are *not* harmful to dolphins that the use of harmful fishing techniques could be discouraged in the US market through the use of the dolphin-safe label.[175] For Mexico, it follows from this that the accuracy of the dolphin-safe label, as a consumer information measure, is essential to the objective of protecting dolphins from adverse effects arising in different fisheries.[176] Therefore, in Mexico's view, the accuracy of the dolphin-safe information provided to consumers on the US label is a central factor in the assessment of whether the regulatory distinctions drawn by the measure are calibrated to the relative risks of overall harms to dolphins posed by different fishing methods in different ocean regions.[177] Indeed, according to Mexico, the reliability of different certification and tracking and verification systems is an integral element of the risk profiles of different fisheries.[178] In practical terms, this means that while the calibration analysis should analyse the different risk profiles of different fishing methods in different areas of the ocean, it must also take into account the reliability of the record-keeping and reporting — that is, the accuracy of the information provided — by the tuna suppliers in different countries, including the level and effectiveness of governmental oversight over the fishers and trans-shippers of the tuna and the producers of the product, and the existence of illegal, unreported and unregulated fishing (IUU).[179] Such considerations would, in Mexico's view, be especially relevant to the Panels' assessment of any differences in the certification and tracking and verification requirements.[180]

7.90. Finally, Mexico argues that, in the context of these proceedings, the Panels' assessment of even-handedness should encompass consideration of whether the 2016 Tuna Measure gives rise to "unjustifiable discrimination" for reasons *other than* the relationship (or lack thereof) between the detrimental impact and the objectives pursued by the 2016 Tuna Measure. Specifically, Mexico argues that the Panels should determine whether the 2016 Tuna Measure gives rise to "unjustifiable discrimination" because the differences in labelling conditions "discriminate against an environmentally sustainable fishing method … in favour of an environmentally unsustainable fishing practice".[181] In Mexico's view, while WTO Members are free to choose their own objectives,

[168] Mexico's first second written submission, para. 22.
[169] Mexico's first written submission, para. 4.
[170] Mexico's second written submission, para. 22.
[171] Mexico's second written submission, para. 24.
[172] Mexico's response to Panels' question No. 73, para. 79.
[173] Mexico's second written submission, para. 23.
[174] Mexico's second written submission, para. 24.
[175] Mexico's second written submission, para. 42 (citing Panel Report, *US – Tuna II (Mexico)*, paras. 7.426-7.427) (emphasis in original).
[176] Mexico's second written submission, para. 42.
[177] Mexico's second written submission, para. 44.
[178] Mexico's first written submission, para. 114.
[179] Mexico's first written submission, para. 221.
[180] Mexico's second written submission, para. 50.
[181] Mexico's second written submission, paras. 30-31.

they cannot employ means that are inconsistent with the objective of sustainable development. According to Mexico, because the 2016 Tuna Measure discriminates against an environmentally sustainable fishing method in favour of one that is unsustainable, the Measure is inconsistent with the principle of sustainable development and can be found to be inconsistent with the WTO Agreement on this ground.[182]

7.91. The United States disagrees with Mexico's understanding of the applicable legal standard. First, the United States argues that Mexico's proposed test for arbitrary or unjustifiable discrimination, and its contention that the even-handedness analysis is a multi-factor test, is incompatible with the approach adopted by the Appellate Body in the first compliance proceedings. According to the United States, Mexico's argument seeks to divert the Panels from conducting the required risk-based analysis, and would lead the Panels to consider factors other than the risks to dolphins – factors not relied on by the Appellate Body in either its original or first compliance reports – thus improperly minimizing the importance in the analysis of the relative overall risks to dolphins resulting from the use of different fishing methods in different fisheries.[183] In the United States' view, the fact that there may, in theory, be different ways to test for even-handedness does not detract from the fact that, in this dispute, the Appellate Body has clarified that the appropriate analysis is whether the Measure is properly calibrated to the risks to dolphins arising from different fishing methods in different areas of the ocean.[184]

7.92. The United States further contends that Mexico is incorrect in arguing that the Panels should assess whether the relevant regulatory distinctions in the 2016 Tuna Measure are calibrated to the relative risks of inaccurate dolphin-safe certification, reporting, and/or record-keeping.[185] In the United States' view, this is not the test that was articulated by the Appellate Body[186], and the United States finds no support in either of the Appellate Body's previous reports in this dispute.[187] Rather, according to the United States, the Appellate Body has made clear that the relevant test is whether the relevant regulatory distinctions are calibrated to the risks to dolphins arising from different fishing methods in different areas of the ocean.

7.93. Moreover, the United States argues that Mexico's approach would require the Panels to apply one calibration test to the eligibility criteria (that is, calibration to the risks to dolphins caused by different fishing methods in different areas of the ocean), and an entirely different calibration test to assess the certification and tracking and verification requirements (that is, calibration to the risks of inaccurate dolphin-safe certification, reporting, and/or record-keeping). According to the United States, in the first compliance proceedings, the Appellate Body faulted the compliance panel for applying one test to the eligibility criteria and a different test to the certification requirements and tracking and verification requirements, emphasizing that the same test must be applied to each of these cumulative and highly interrelated regulatory distinctions. In the view of the United States, applying different tests to different regulatory distinctions would lead to the type of segmented analysis that the Appellate Body criticized in the previous proceedings. Thus, adopting Mexico's proposed legal test would amount to "reversible error".[188]

7.94. In sum, we understand the United States' position to be that the applicable legal standard under Article 2.1 of the TBT Agreement is whether the relevant regulatory distinctions in the 2016 Tuna Measure are calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean. On the other hand, Mexico's view is that the Panels must assess whether the 2016 Tuna Measure is "even-handed" by applying a "multi-factor" legal test that asks a number of questions, including whether the Measure is calibrated to both the risks to dolphins arising from the use of different fishing methods in different areas of the ocean *and* the risks of inaccurate labelling, as well as whether there is a rational relationship between the relevant regulatory distinctions and the objectives pursued by the 2016 Tuna Measure.

7.95. We note that the present proceedings form part of a continuum that includes the original and first compliance proceedings in this dispute. We must therefore accord due cognizance to the recommendations and rulings made by the DSB in the original and first compliance proceedings,

[182] Mexico's second written submission, paras. 31-32.
[183] United States' third written submission, para. 25.
[184] United States' third written submission, para. 19.
[185] United States' second written submission, para. 39.
[186] United States' first written submission, para. 41.
[187] United States' second written submission, para. 41.
[188] United States' response to Panels' question No. 44, para. 229.

based on the findings of the Appellate Body and original and first compliance panels.[189] In our view, the Appellate Body's report in the first compliance proceedings is particularly instructive on the question of the applicable legal standard. We note, however, that the parties have very different understandings of the parts of this report that set out the applicable legal standard. Accordingly, we will summarize our understanding of the key legal findings in that report before explaining their implications for our task in the present proceedings.

7.96. In our view, the Appellate Body's report in the first compliance proceedings contains a number of passages that clarify the legal test that we should apply in these proceedings.

7.97. We first observe that, the Appellate Body in the first compliance proceedings did indeed state, in the section of its report containing "Preliminary Observations" on "Whether the Panel erred in its interpretation of Article 2.1 and its articulation of the legal standard for determining whether the detrimental impact on imported products stems exclusively from a legitimate regulatory distinction", that "a panel does not err by assessing whether the detrimental impact can be reconciled with, or is rationally related to, the policy pursued by the measure at issue, so long as, in doing so, it does not preclude consideration of other factors that may also be relevant to the analysis".[190] In stating this, the Appellate Body was reiterating its view that factors other than the question of whether discrimination can be reconciled with the policy objective of the measure at issue may be relevant to an analysis of whether discrimination is arbitrary or unjustifiable.[191]

7.98. However, immediately after making these general observations, the Appellate Body recalled that in the original proceedings in this dispute, the United States sought to explain that its measure was even-handed by introducing the notion of "calibration". The Appellate Body explained that in those proceedings, the United States contended that its measure was even-handed because the distinctions that it drew between different tuna fishing methods and different areas of the ocean could be explained or justified by differences in the risks associated with such fishing methods and areas of the ocean.[192] The Appellate Body observed that this line of argument led the Appellate Body in those proceedings to examine the legitimacy of the original Tuna Measure's regulatory distinctions through the lens of the concept of calibration.[193]

7.99. In the light of this background, and bearing in mind that in the first compliance proceedings the United States had again made arguments concerning the calibration of its tuna labelling regime, the Appellate Body in the first compliance proceedings found that:

> [T]here is a special relevance in these Article 21.5 proceedings in conducting an assessment of whether, under the amended tuna measure, the differences in labelling conditions for tuna products containing tuna caught by large purse-seine vessels in the ETP, on the one hand, and for tuna products containing tuna caught in other fisheries, on the other hand, are "calibrated" to the differences in the likelihood that dolphins will be adversely affected in the course of tuna fishing operations by different vessels, using different fishing methods, in different areas of the oceans.[194]

7.100. The Appellate Body then proceeded to consider the first compliance panel's application of the legal standard it had articulated. In this context, the Appellate Body found that the panel had erred because, in the light of the circumstances of the dispute and the nature of the distinctions drawn under the 2013 Tuna Measure, the panel was required to assess whether the certification and tracking and verification requirements were calibrated to the risks to dolphins arising from different fishing methods in different areas of the ocean.[195] In this respect, as we have noted above, the Appellate Body noted that "the Appellate Body's assessment of even-handedness in the original proceedings was focused on the question of whether the original tuna measure was calibrated to the risks to dolphins arising from different fishing methods in different areas of the oceans", and emphasized that the Appellate Body had accepted the premise that the United States' tuna labelling regime "will not violate Article 2.1 if it is properly calibrated to the risks to

[189] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.112.
[190] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.95.
[191] Appellate Body Report, *EC – Seal Products*, para. 5.321.
[192] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.98.
[193] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.98.
[194] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.101.
[195] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.169.

dolphins arising from different fishing methods in different areas of the oceans".[196] Thus, in concluding its review of the first compliance panel's analysis under Article 2.1 of the TBT Agreement, the Appellate Body stated:

> [W]e have not found error in the Panel's articulation of the legal standard. However … We have further found that, in the light of the circumstances of this dispute and the nature of the distinctions drawn under the amended tuna measure, the Panel erred by failing to consider whether differences in the relative risks of harm to dolphins from different fishing techniques in different areas of the oceans explain or justify the differences in the certification requirements and the tracking and verification requirements applied inside and outside the ETP large purse-seine fishery.[197]

7.101. The Appellate Body thus found that while the first compliance panel did not err in its articulation of the applicable legal standard (which focused on the existence of a rational connection between detrimental treatment and the objectives pursued by a challenged measure, but also recognized that the existence of such rational relationship was not the only element that could be taken into account), it nevertheless erred in its application of that standard in this particular dispute by failing to assess whether the measure was "calibrated" to the risks posed to dolphins by different fishing methods in different areas of the ocean. As noted above, the Appellate Body emphasized that in the original proceedings, the Appellate Body had found that the United States' labelling regime would not be inconsistent with Article 2.1 of the TBT Agreement if it were calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean.[198]

7.102. In our view, these statements make clear that, while there may in theory be a number of ways in which a panel could assess the "even-handedness" of a measure challenged under Article 2.1 of the TBT Agreement, in the specific context of these proceedings, the appropriate legal standard for the Panels to apply is one that focuses on the relationship between the risks posed to dolphins by different fishing methods in different areas of the ocean, on the one hand, and the relevant regulatory distinctions, on the other hand. In this connection, we note that, as in both the original and first compliance proceedings, the United States has once again based its arguments on the notion that the 2016 Tuna Measure is calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean. Mexico has also engaged in extensive argumentation on the question of whether the Measure is properly calibrated. In our view, the parties' continued reliance on an analysis of calibration supports our view that, in these proceedings, it is appropriate for us to assess the even-handedness of the 2016 Tuna Measure by analysing it through the "lens" of calibration.[199]

7.103. As we understand it, the Appellate Body's reasoning indicates that, *in the context of this dispute*, and without prejudice to the ways in which the "even-handedness" could be applied in other cases, the "even-handedness" of the Tuna Measure can be determined by assessing whether its relevant regulatory distinctions are calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean. Accordingly, we read these passages as indicating that our task in these proceedings is to ascertain whether the relevant regulatory distinctions are appropriately "calibrated" and "tailored" to, and commensurate with[200], the different risks to dolphins arising in different fisheries. If the relevant regulatory distinctions are so calibrated, this will indicate that the 2016 Tuna Measure is not inconsistent with Article 2.1 of the TBT Agreement.[201]

7.104. In this connection, we note Mexico's argument that "the Panels need not undertake such a comparison [i.e. the calibration analysis]. Rather, it is the United States that must demonstrate that such a comparison was undertaken".[202] Insofar as Mexico is arguing that the calibration analysis imposes a process obligation on the United States, and that what the United States must prove is not (or not only) that the 2016 Tuna Measure is calibrated, but also that the United States actually undertook a calibration analysis prior to establishing the Measure, we disagree. We find no

[196] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.155.
[197] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.229.
[198] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.155.
[199] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.98.
[200] See e.g. Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.252.
[201] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.155.
[202] Mexico's response to Panels' question No. 79, para. 109.

support for this notion in either the text of Article 2.1 of the TBT Agreement or in the panel or Appellate Body reports in the prior proceedings of this dispute. As we understand it, Article 2.1 of the TBT Agreement does not impose a particular process or set of procedures that should be applied by WTO Members before adopting technical regulations. Rather, it requires Members to ensure that technical regulations accord treatment no less favourable to the products of a Member than to like products of national origin or originating in any other country. In other words, it is a particular treatment to be accorded to imported products (i.e. one that is no less favourable than that accorded to domestic or foreign like products), rather than a specific process of adoption that is imposed by Article 2.1 of the TBT Agreement. Moreover, we understand the Appellate Body's report in the first compliance proceedings as indicating that the panels themselves must undertake an assessment of whether the Tuna Measure is calibrated.[203]

7.105. In thus finding, we must emphasize that we do not mean to imply that the process through which a technical regulation is adopted has no place in, or bears no consequence to, our analysis under Article 2.1 of the TBT Agreement. Indeed, the process of adoption can be relevant for a panel to determine whether a technical regulation is even-handed in light of the "particular circumstances of the case, that is, the design, architecture, revealing structure, operation, and application of the technical regulation at issue".[204] In this sense, insofar as the process of adoption of the 2016 Tuna Measure could help demonstrate its (lack of) even-handedness, it will form part of our analysis.[205] However, as we noted above, Article 2.1 is explicitly concerned with the nature of treatment accorded by technical regulations, and accordingly we do not understand Article 2.1 to establish a separate or distinct obligation relating to the process by which the 2016 Tuna Measure was adopted.

7.106. Two issues related to the legal standard outlined above (i.e. calibration to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean) must now be clarified further. First, we must determine if we should focus our calibration analysis on the question of whether the 2016 Tuna Measure is calibrated only to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean, as the United States argues, or if our calibration analysis should also consider whether the relevant regulatory distinctions are calibrated to risks relating to inaccurate certification and tracking and verification, as Mexico argues. Second, we must further consider the relationship between the calibration analysis and the question of whether there is a rational connection between the regulatory distinctions and the objectives of the 2016 Tuna Measure.

7.107. The first issue concerns the scope of the calibration analysis. As we have explained above, Mexico argues that the reliability of the applicable systems in different fisheries for certification, tracking and verification are integral elements of the 'risk profile' of different fisheries.[206] In Mexico's view, this means that, in addition to analysing whether the relevant regulatory distinctions are calibrated to the risks to dolphins, we must conduct an "additional examination"[207] of whether the relevant regulatory distinctions are calibrated to the different relative risks (i.e. likelihood) of inaccurate dolphin-safe certification, reporting, and/or record-keeping with respect to the tuna caught in different fisheries and different areas of the ocean.[208] As we noted above, the United States rejects Mexico's view, arguing that the standard articulated by Mexico is "not the test applied by the Appellate Body"[209], and that applying the standard articulated by Mexico would result in the Panels applying different legal tests in respect of different regulatory distinctions, contrary to the Appellate Body's guidance in the first compliance proceedings.[210]

[203] See e.g. Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.155 (indicating what, in the Appellate Body's view, would have been an "appropriate … analysis" for the first compliance panel to have undertaken.)

[204] Appellate Body Report, *US – Clove Cigarettes*, para. 182.

[205] We note, for instance, that in some previous disputes brought before the WTO dispute settlement system, the manner in which the measures under review were adopted was taken into consideration by the Appellate Body in its determination of whether they constituted "arbitrary or unjustifiable discrimination". See Appellate Body Report, *US – Shrimp*, paras. 171-172. See also Appellate Body Report, *US – Gasoline*, pp. 27-29.

[206] Mexico's first written submission, para. 114.

[207] Mexico's first written submission, para. 218.

[208] Mexico's first written submission, para. 218.

[209] United States' second written submission, para. 41.

[210] United States' second written submission, para. 42.

7.108. In determining the proper scope of the calibration analysis, we look to the guidance provided by the Appellate Body in previous stages of this dispute. Of particular importance, in our view, is that the Appellate Body, in both its original and first compliance reports, repeatedly referred to the importance of assessing whether the measure is calibrated to "the different risks to dolphins arising from different fishing methods in different areas of the oceans"[211], "the risk that dolphins may be killed or seriously injured when tuna was caught"[212], "the likelihood that dolphins would be adversely affected in the course of tuna fishing operations in the different fisheries"[213], the "differences in the likelihood that dolphins will be adversely affected in the course of tuna fishing operations by different vessels, using different fishing methods, in different areas of the oceans"[214], "the relative adverse effects on dolphins arising outside the ETP large purse-seine fishery as compared to those inside that fishery"[215],"the differing risk profiles of the different fisheries"[216], "the differences in risks in different fisheries"[217], and "the different risk profiles in different fisheries".[218] We have not found any reference in either of the Appellate Body reports in this dispute suggesting that the proper analysis is whether the 2016 Tuna Measure is calibrated to anything other than the risks posed to dolphins by the use of different fishing methods in different areas of the ocean.

7.109. With respect to Mexico's specific argument that risks relating to inaccurate certification, reporting, and/or record-keeping form an "integral part" of the risk profiles of different fisheries, in our view, the Appellate Body's reasoning in the preceding reports in this dispute does not support this view. As noted above, the Appellate Body has repeatedly stated that the applicable legal standard is calibration to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean. To us, this suggests that the relevant inquiry is one that focuses on the risks that dolphins face as a result of the use, in different areas of the ocean, of different fishing methods. In particular, the inquiry is one that centres on the risks that dolphins will be killed or injured by the use of different fishing techniques in different fishing grounds.[219] Indeed, this is how the Appellate Body appears to have understood the expression "risk profile". For example, at paragraph 7.165 of its report in the first compliance proceedings, the Appellate Body notes that the compliance panel "gave some consideration to the respective risk profiles associated with different fishing methods in different areas of the ocean" by noting that "setting on dolphins is inherently dangerous to dolphins even where no dolphin is seen to be killed or seriously injured".[220]

7.110. As we see it, the risks of inaccurate certification, reporting, and/or record-keeping are not risks that affect dolphins themselves, though they may, as Mexico alleges[221], have an indirect influence on the extent to which different fishing methods are used to catch tuna intended for the US market.[222] Nor are they risks that arise from the use of different fishing methods in different areas of the ocean, even though fish caught in different areas of the ocean through the use of different fishing methods may be associated with a greater or smaller risk of inaccurate labelling depending on a range of interconnected factors, including the persons involved in the catch, available technology, and applicable domestic and international regulatory requirements.[223] Accordingly, we do not think the Appellate Body in either the original or the first compliance

[211] See e.g. Appellate Body Report, *US – Tuna II (Mexico)*, paras. 283 and 297; *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.33, 7.78, 7.98, 7.108, 7.109, 7.111, 7.119, 7.123, 7.144, 7.146, 7.152, 7.156, 7.169, 7.266, 7.327, and 7.347.

[212] See *e.g.* Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.80 and 7.121.

[213] See e.g. Appellate Body Report, *US – Tuna II (Mexico)*, para. 286; *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.157, 7.239, and 7.330.

[214] See e.g. Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.101.

[215] See e.g. Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.242.

[216] See e.g. Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.144.

[217] See e.g. Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.344.

[218] See e.g. Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.334 and 7.350.

[219] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.80 and 7.121.

[220] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.165.

[221] Mexico's response to Panels' question No. 78, para. 101.

[222] This is because one of the objectives of the label is to provide consumers with information as to the dolphin-safe status of tuna products in order to ensure "that the US market is not used to encourage fishing fleets to catch tuna in a manner that adversely affects dolphins". Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 6.3.

[223] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.169 and 7.372 and fn. 464, 681 and 711.

proceedings intended subsequent compliance panels to include risks relating to inaccurate certification, reporting, and/or record-keeping within the "risk profiles" that it instructed those panels to assess and compare. Rather, the Appellate Body's focus was clearly on the risks of observable and unobservable mortality and injury caused to dolphins as a result of the use of different fishing methods in different areas of the ocean.

7.111. In order to explore this issue further with the parties, we asked Mexico to clarify whether there is support in either of the Appellate Body's reports for its view that the reliability of different systems for certification and tracking and verification are integral elements of the risk profile in different fisheries.[224] Mexico responded that the Appellate Body's reports in the original and first compliance proceedings "do not directly address" whether the Tuna Measure must be calibrated to the relative risks of inaccurate dolphin-safe information being passed on to US consumers, or whether the reliability of the applicable systems for certification, tracking and verification are integral elements of the risk profile of different fisheries. In Mexico's view, however, "the maintenance of label accuracy is part of the Appellate Body's reasoning".[225]

7.112. As we discuss in more detail later in these Reports, we agree with Mexico that the question of the accuracy of certification, and tracking and verification was relevant to the Appellate Body's analysis in the original and the first compliance proceedings. That, however, is different from saying that the applicable legal standard, as clarified by the Appellate Body, requires the Panels to determine whether the 2016 Tuna Measure is calibrated, *inter alia*, to the risk of inaccurate dolphin-safe information being passed to consumers, or that risks relating to inaccurate labelling are an integral part of the risk profiles of different fisheries. In our view, Mexico's acknowledgement that the Appellate Body reports "do not directly address" this point also confirms our reading of those reports. Given the importance placed by the Appellate Body on the calibration test, and the detail with which it described that test, we believe that, if the Appellate Body had considered risks of inaccurate labelling to be part of the "risk profile" of a fishery, such that a subsequent compliance panel would need to assess whether the relevant regulatory distinctions were calibrated to the risks of inaccurate labelling, it would have said so explicitly. However, as Mexico acknowledges, it did not. Rather, it repeatedly referred to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean.

7.113. Therefore, those risks are not part of the risk profiles of different fisheries, and accordingly the applicable legal standard does not require us to assess whether the different regulatory distinctions are calibrated to the different risks of inaccurate certification or tracking and verification that may exist in different fisheries. That said, such risks are relevant to the application of the legal test to the facts, as we explain in detail below.[226]

7.114. We now turn to consider the second issue requiring further clarification with regard to the legal test, namely the relationship between the calibration analysis and the question of whether there is a rational connection between the regulatory distinctions and the objectives of the 2016 Tuna Measure. As noted above, Mexico argues that the calibration analysis "can and must" occur within the constraints of the rational connection test for arbitrary and unjustifiable discrimination.[227] In particular, Mexico argues that "the accuracy of the dolphin-safe label, as a consumer information measure, is essential to the objective of protecting dolphins from adverse effects arising in different fisheries"[228], and that the calibration analysis must take into account the nexus between the regulatory distinctions and this objective.[229] Mexico argues that this position is confirmed by the Appellate Body's statement in the first compliance proceedings that the calibration analysis must be undertaken "taking account of the objectives of the measure".[230]

7.115. Insofar as Mexico's argument suggests that we should assess the existence of a rational relationship between the detrimental impact and the objectives of the 2016 Tuna Measure as a separate or distinct step in our analysis, we are not convinced that Mexico's approach is supported by the Appellate Body's reports in the original or the first compliance proceedings. In the first place, we note that although the Appellate Body in the first compliance proceedings found that the

[224] Panels' question No. 78.
[225] Mexico's response to Panels' question No. 78, para. 96.
[226] See paras. 7.119 to 7.124 below.
[227] Mexico's response to Panels' questions Nos. 73, para. 79 and 76, para. 85.
[228] Mexico's second written submission, para. 42 (internal citations omitted).
[229] Mexico's second written submission, para. 27.
[230] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.155.

first compliance panel had not erred in its articulation of the applicable legal standard, including in its emphasis of the importance of assessing whether the detrimental impact could be reconciled with, or was rationally related to, the policy pursued by the measure at issue[231], it nevertheless held that there was a "special relevance" in this dispute in conducting a proper calibration analysis. In the light of this holding, the Appellate Body proceeded to find that the first compliance panel had erred by failing to conduct such an analysis.[232] As we have explained above, in our view, these findings of the Appellate Body establish that *in this dispute*, the question of whether the 2016 Tuna Measure is consistent with Article 2.1 of the TBT Agreement can be answered by assessing whether that Measure is calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean.[233] We do not read the Appellate Body as requiring any additional, separate analysis of, for example, the abstract relationship between the objectives of the Measure and the detrimental impact.

7.116. Additionally, we do not agree with Mexico that the Appellate Body's statement that the calibration analysis must be conducted taking account of the objectives of the Measure indicates that the calibration analysis should be "constrained" by an analysis of whether the detrimental impact is rationally related to the objectives of the measure, insofar as "constraint" in this context suggests an external benchmark against which the calibration analysis described above must be checked and with which it must be reconciled. Rather, we understand this statement to mean that (a) the *form* and *content* of the calibration test must be appropriately informed by the objectives pursued by the measure, and (b) the calibration test should itself be applied taking account of the measure's objectives.

7.117. With respect to (a), we understand the Appellate Body's reference to the objectives of the Measure to mean that those objectives inform the criteria in respect of which calibration is to be assessed. For example, it is conceivable that the Panels could assess whether the relevant regulatory distinctions of the 2016 Tuna Measure were calibrated to the different depth of the ocean floor in different regions. Such an analysis, however, would have no connection to the objectives pursued by the Measure based on the evidence on the record, and accordingly would fall foul of the Appellate Body's guidance. On the other hand, calibration to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean would take account of the objectives of the 2016 Tuna Measure, which, as noted above, are "contributing to the protection of dolphins, by ensuring that the US market is not used to encourage fishing fleets to catch tuna in a manner that adversely affects dolphins" and "ensuring that consumers are not misled or deceived about whether tuna products contain tuna that was caught in a manner that adversely affects dolphins".[234] Accordingly, because the form and content of the legal standard articulated by the Appellate Body are informed and shaped by the Measure's objectives, we take those objectives into account in applying the legal standard articulated by the Appellate Body.

7.118. With respect to (b), we also understand the Appellate Body's reference to mean that, in applying the calibration test to the facts, and in particular in developing an appropriate methodology for assessing calibration and in assessing whether the relevant regulatory distinctions are in fact calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean, we should bear in mind the objectives of the 2016 Tuna Measure. In this regard, we consider that although, as we have explained above, the calibration test does not require us to consider whether the 2016 Tuna Measure is calibrated to the risks of inaccurate certification, reporting, and/or record-keeping, those risks are nevertheless central to our application of the calibration test, precisely because in applying the calibration test we must take the objectives of the Measure into account.

7.119. In this connection, we note that by the expression "risk of inaccuracy", we understand the first compliance panel, the Appellate Body, and the parties to mean the risk that, as a result of an error in the certification, and tracking and verification processes, the information recorded and reported at any stage of the tuna catch and processing chain could misrepresent the actual dolphin-safe status of a batch of tuna. In other words, we understand it to mean the risk that an error in the recording and reporting of information somewhere in the catch and processing chain could result in a batch of tuna being designated as dolphin-safe while in fact containing tuna that should have been designated as non-dolphin-safe.

[231] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.95.
[232] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.169.
[233] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.155.
[234] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.16.

7.120. In this regard, we find it important to note that, as we understand it, the existence of a margin of error in certification, and tracking and verification requirements does not necessarily equate or give rise to a risk that the information ultimately conveyed to a consumer by a dolphin-safe label will itself be incorrect. In our view, the risk of inaccurate information being passed to consumers by the label will depend not only on the referred margin of error, but also, and importantly, on the extent of events that require recording whether a dolphin mortality or serious injury was observed in a given fishery.

7.121. To give an example, it is possible to think of a situation where the margin of error is high but where, due to a low occurrence of events that require recording whether a dolphin mortality or serious injury was observed, the risk of incorrect information ultimately conveyed to a consumer by a dolphin-safe label would be low. Conversely, there might be a situation where the margin of error is low but the extent of events that require recording whether a dolphin mortality or serious injury was observed is so high that there is a higher risk of incorrect information ultimately conveyed to a consumer by a dolphin-safe label. In our view, the risk profile is a good proxy to measure the extent of events that require recording[235] whether a dolphin mortality or serious injury was observed.

7.122. Thus, in applying the calibration test and taking into account the objectives of the 2016 Tuna Measure, we cannot assume that the mere existence of margins of error in certification, and tracking and verification requirements is necessarily inconsistent with the objectives of the Measure. Rather, in our view, the central question is whether any margins of error in certification, tracking and verification, and any differences in the margins of error tolerated by different certification, and tracking and verification requirements, are calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean.

7.123. To put this another way, we consider that, in applying the calibration test, it is appropriate for us to consider whether the certification, and tracking and verification requirements applied in different fisheries are commensurate with, and tailored to, the particular risk profiles of those fisheries. In our view, in a fishery where the risks to dolphins are low, it may be calibrated to apply certification, and tracking and verification requirements that tolerate a higher margin of error than the certification, reporting, and/or record-keeping requirements that apply in respect of fisheries with a high risk profile. This is because the risk that the dolphin-safe label will communicate inaccurate information is a function of numerous factors, including not only the regulations in place, but also the different levels of dolphin interaction, mortality, and serious injury in different fisheries. Thus, in fisheries with high dolphin interactions and harms, more sensitive certification, and tracking and verification requirements may be needed to ensure the ultimate accuracy of the dolphin-safe label, whereas in fisheries with low dolphin interactions and harms, less sensitive requirements may be sufficient. Thus, the extent to which margins of error in certification, and tracking and verification requirements, or any differences in the margins of error in different certification, and tracking and verification requirements, are consistent with the objectives of the 2016 Tuna Measure cannot be answered by looking at the regulations in isolation. Rather, it is necessary to examine them in the light of the relevant risk profiles in different fisheries, in particular by assessing whether any margins of error in certification, and tracking and verification requirements are themselves calibrated to, tailored to, and commensurate with the different risk profiles in different fisheries.

7.124. Thus, we consider that the objectives of the 2016 Tuna Measure can and should be taken into account in the application of the calibration test to the facts, in particular in assessing whether any margins of error in certification, and tracking and verification requirements, or any differences in the margins of error in different certification, and tracking and verification requirements, are calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean. This, however, is not the same as requiring that the relevant regulatory distinctions themselves be calibrated to the different risks of inaccurate certification and tracking and verification, nor is it the same as "constraining" the calibration analysis by reference to a separate analysis of the relationship between the Measure's objectives and the detrimental treatment.

[235] By "events that require recording", we mean not only the events, such as death or serious injury of dolphins, which make up the risk profile of the relevant fishery, but also other events, such as the fact that dolphins were observed by the vessel captain or independent observer; whether or not dolphin-safe and non-dolphin-safe tuna were segregated in the wells on board the vessel; and whether that segregation was maintained during the trans-shipment and unloading of the tuna.

7.125. We further note that, as we understand it, Mexico's argument that the calibration analysis should be constrained by the rational relationship test appears to create an artificial distinction between the consumer information and the dolphin protection objectives of the Measure. As we understand it, the 2016 Tuna Measure does not pursue two distinct objectives. Rather, the two objectives are mutually complementary and reinforcing, and work together to "address [the effects of] adverse of fishing techniques on dolphins".[236] In this connection, while it is certainly true that the 2016 Tuna Measure "is a labelling measure which, by its nature and design, is primarily focused on conveying accurate information to consumers"[237], we agree with the United States that "that information is not provided simply for the sake of informing consumers".[238] Rather, the Measure aims to convey accurate information to consumers in order to ensure that the US tuna market is not used to encourage fishing fleets to catch tuna in a manner that adversely affects dolphins.[239] The objective of providing information to consumers is therefore a part of, rather than separate from, the objective of protecting dolphins.[240]

7.126. Finally on this point, we note Mexico's argument that conducting a calibration analysis that is constrained by an examination of the existence of a rational connection between the detrimental impact and the objectives of the Measure is necessary in order to "ensure[] symmetry between Article 2.1 of the TBT Agreement and the chapeau of Article XX of the GATT 1994".[241] In the context of this dispute, it is unnecessary for us to opine on the existence of a systemic "symmetry" between the two provisions. We would simply note that the calibration analysis we have described is fully consistent with the legal standard applicable under the chapeau of Article XX of the GATT 1994, as clarified by the Appellate Body. The calibration test looks precisely at whether the relevant regulatory distinctions are "tailored to", "commensurate with", or "explained" by differences in the underlying situation to which the 2016 Tuna Measure seeks to respond.[242] As we see it, this is similar to the inquiry under Article XX of the chapeau, which considers, *inter alia*, whether the measure is "applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination".

7.127. In sum, we find that in these proceedings, there is a "special relevance" to an analysis of whether the 2016 Tuna Measure is calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean. In particular, we recall the Appellate Body's statement in the first compliance proceedings that the Measure will not be inconsistent with Article 2.1 of the TBT Agreement if it is properly calibrated to those risks. For the reasons given above, we conclude that the risk of inaccurate labelling does not form part of the "risk profiles" of different fisheries. Additionally, we disagree with Mexico's argument that the calibration analysis must be "constrained by" a distinct analysis of the relationship between the detrimental impact and the objectives of the Measure. Having said that, in our view the calibration analysis "takes account of the objectives of the Measure" insofar as those objectives inform the shape and content of the calibration test. Moreover, as we explain in more detail below, the objectives of the Measure will also be taken into account in the application of the legal standard to the facts at issue.

7.128. Before concluding our discussion of the applicable legal test, we briefly note Mexico's argument that WTO "Members are of course free to choose their own objectives. But if the means they use to achieve those ends are inconsistent with the objectives of sustainable development, then they are likewise inconsistent with their WTO obligations".[243] In response to a question from the Panels concerning the legal basis for this argument, Mexico argues that while the reference to sustainable development in the preamble of the WTO Agreement does not itself create any obligations, nevertheless the text of all WTO obligations that in any way relate to the objective of sustainable development or environmental protection must be interpreted and clarified within this textual context.[244] Moreover, Mexico contends that the principle of sustainable development has

[236] Panel Report, *US – Tuna II*, para. 7.550.
[237] Mexico's response to Panels' question No. 115, para. 231.
[238] United States' response to Panels' question No. 115, para. 402.
[239] Panel Report, *US – Tuna II*, para. 7.427.
[240] We note that the Appellate Body appears to have confirmed this understanding in its report in the first compliance proceedings, where it stated that the panel had failed to conduct the required calibration analysis "in the light of the objective of protecting dolphins from adverse effects arising in different fisheries". Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.253.
[241] Mexico's comments on United States' response to Panels' question No. 117, para. 173.
[242] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.253.
[243] Mexico's second written submission, para. 32.
[244] Mexico's response to Panels' question No. 84, para. 130.

risen to the status of a principle of international law applicable to all countries[245], and accordingly should be taken into account by the Panels when interpreting Article 2.1 of the TBT Agreement in accordance with customary rules of interpretation of public international law[246], including the rule codified at Article 31(3)(c) of the *Vienna Convention on the Law of Treaties*. Finally, Mexico refers to the "17 global goals and the 169 global targets of the Sustainable Development Goals approved by the United Nations in September of 2015 – with the support of both Mexico and the United States" and posits that, although not binding, they should "provide helpful guidance as context from broader public international law in this dispute for the purposes of interpreting and clarifying the relevant obligations in the WTO covered agreements in a manner that is consistent with the objective of sustainable development".[247] In particular, Mexico argues that the Sustainable Development Goal 14, and its targets 14.2 and 14.4, on sustainable management of marine ecosystems and effective regulation of fishing practices, respectively, provide "useful context" for this dispute.[248]

7.129. As we understand it, Mexico's argument is that the Panels should, at the least, interpret Article 2.1 of the TBT Agreement in the light of the principle of sustainable development. This is so because (a) the preamble of the WTO Agreement refers to sustainable development, and (b) sustainable development has risen to the status of a principle of international law applicable in the relations between all countries.

7.130. It is not entirely clear to us what, in Mexico's view, would be the result of interpreting Article 2.1 in the light of the principle of sustainable development. In its response to the Panels' question, Mexico suggests that "[m]easures that discriminate in a manner that goes against the objective of sustainable development are inconsistent with this important context [i.e. the context provided by the preamble of the WTO Agreement] and, therefore, can be found to be inconsistent with the obligations and requirements in Article 2.1 and the chapeau to Article XX".[249] This argument, however, does appear to elevate the preambular language to the level of substantive obligation, despite Mexico's assertion to the contrary. As Mexico itself acknowledges, however, the preamble to the WTO Agreement does not of itself create substantive obligations. We of course recognize that the preamble of the WTO Agreement "add[s] colour, texture and shading to [the] interpretation of the agreements annexed to the WTO Agreement".[250] In our view, however, to accept, as Mexico proposes, that a measure may be found to be inconsistent with a particular provision of one of the covered agreements because it discriminates in a manner that goes against one of the goals referenced in the preamble to the WTO Agreement would go far beyond recognizing that the preamble informs the interpretation of the covered agreements.[251] Rather, it would elevate the language of the preamble to the level of a norm, and accord it more weight than the language used by the Members in framing the obligations contained in the covered agreements.

7.131. In our view, Article 2.1 is essentially concerned with ensuring that technical regulations are designed and applied in a manner that affords national treatment and most favoured nation treatment to all WTO Members.[252] That Article 2.1 may apply in respect of technical regulations that themselves pursue the objective of sustainable development is beside the point, since it may just as well apply in respect of technical regulations that have nothing whatsoever to do with sustainable development. At any rate, we note that, we do not consider that the 2016 Tuna Measure is concerned with sustainable development. Rather, it is concerned with the protection and well-being of dolphins.[253] While the protection of dolphins of course has an impact on the conservation and therefore the sustainability of dolphin populations, that does not render the 2016 Tuna Measure a "sustainability" measure, nor does it turn a dolphin-safe label into a "sustainability" label. The WTO Agreement does not obligate the United States or any other Member to regulate only for the objective of "sustainable development", and in our view a measure is not inconsistent with Article 2.1 of the TBT Agreement merely because it pursues some other objective.

[245] Mexico's response to Panels' question No. 84, para. 132.
[246] Article 3.2 of the DSU.
[247] Mexico's response to Panels' question No. 84, para. 133.
[248] Mexico's response to Panels' question No. 84, para. 134.
[249] Mexico's response to Panels' question No. 84, para. 125. Also, Mexico's response to Panels' question No. 84, paras. 135 and 139.
[250] Appellate Body Report, *US – Shrimp*, para. 153.
[251] Appellate Body Report, *US – Shrimp,* para. 129.
[252] Appellate Body Report, *US – COOL*, para. 267.
[253] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.527.

7.6 Burden and standard of proof

7.132. Before proceeding, it is convenient to say something about the burden of proof. The Panels note that the general principles applicable to burden of proof in WTO dispute settlement require that a party claiming a violation of a provision of the WTO Agreement by another Member must prove its claim.[254] Further, it is generally for each party asserting a fact, whether complainant or respondent, to provide proof thereof.[255] We also note that the fact that proceedings initiated under Article 21.5 of the DSU concern measures taken to comply with DSB recommendations and rulings does not alter the allocation of burden of proof.[256] We will be guided by these principles with regard to burden of proof in these proceedings.

7.133. However, we note that these proceedings are somewhat unusual, in that both the original complaining party and the original responding party have requested the establishment of panels under Article 21.5 of the DSU to determine the consistency with the WTO Agreement of a measure taken to comply by the original responding party. The parties' written and oral submissions have not clearly distinguished between claims and arguments made in respect of the proceedings brought by the United States, on the one hand, and those made in respect of the proceedings brought by Mexico, on the other hand. This is perhaps inevitable given that the parties agree as to what is the measure taken to comply, namely the 2016 Tuna Measure, and both proceedings focus on two issues, namely, whether the 2016 Tuna Measure (a) complies with the requirement to provide "treatment no less favourable" under Article 2.1 of the TBT Agreement and (b) meets the conditions laid down in the chapeau of Article XX of the GATT 1994.

7.134. Although, technically speaking, these Panels deal with two disputes, in terms of their practical dynamics, these proceedings resemble very much proceedings dealing with a single dispute, except with respect to the issue of burden of proof. The allocation of the burden of proof requires special attention in these proceedings because both the original complainant (Mexico) and the original respondent (United States) are at the same time both complainant and respondent in these proceedings. Further, the claims and arguments of both parties presented in the proceedings brought by Mexico are the mirror image of their claims and arguments presented in the proceedings brought by the United States. Thus, in the proceedings brought by the United States, the United States, as complaining party, argues that the 2016 Tuna Measure brings the United States into compliance with the WTO Agreement because it complies with the requirement to provide "treatment no less favourable" under Article 2.1 of the TBT Agreement and meets the conditions laid down in the chapeau of Article XX of the GATT 1994. Mexico as the responding party argues the opposite. In the proceedings brought by Mexico, Mexico as complaining party argues that the 2016 Tuna Measure fails to bring the United States into compliance with the WTO Agreement, because it neither complies with the requirement to provide "treatment no less favourable" under Article 2.1 of the TBT Agreement nor meets the conditions laid down in the chapeau of Article XX of the GATT 1994. The United States as the responding party argues the opposite. Accordingly, the United States' claim that the 2016 Tuna Measure brings the United States into compliance with the WTO Agreement is a claim that is made both as a complaint and as a response. The same is true of Mexico's claim.

7.135. Given this situation, it is not entirely clear how in practice we should apply the principles on burden of proof cited above. While the parties appear to agree on these principles, neither has explained *how* those principles could actually be applied in the light of the consolidated way in which the parties presented their arguments. In this regard, we note that, in its first written submission, Mexico explains that "[t]his submission presents Mexico's *prima facie* case that the measure violates [Article 2.1 of the TBT Agreement and the chapeau of Article XX of the GATT 1994] in the *Article 21.5 – Mexico II* proceeding. It also responds to the first written submission of the United States in the *Article 21.5 – United States* proceeding".[257] The submission does not, however, distinguish between those arguments made as part of Mexico's *prima facie* case, and those made in response to the United States' submission. The United States similarly argues in its second written submission that "[t]he United States agrees that with respect to the matter brought by the United States, the United States has the burden of proof, and with respect to the matter

[254] Appellate Body Report, *US – Wool Shirts and Blouses*, p. 14.
[255] Appellate Body Report, *US – Wool Shirts and Blouses*, p. 14.
[256] Appellate Body Report, *Brazil – Aircraft (Article 21.5 – Canada)*, para. 66; Panel Report, *Canada – Dairy (Article 21.5 – New Zealand and US)*, para. 6.4.
[257] Mexico's first written submission, para. 4.

brought by Mexico, Mexico has the burden of proof". The United States does not, however, make any distinction in its submissions between the two matters.[258]

7.136. In its third party statement, Norway argues that "the burden of proof does not shift depending on who initiated the Article 21.5 proceedings".[259] In Norway's view, the principles outlined by the Appellate Body and quoted above apply regardless of whether the United States or Mexico initiated proceedings under Article 21.5 of the DSU. In order to explore this issue with the parties, we asked them to comment on Norway's argument. In response, Mexico maintains that "[i]n both Article 21.5 proceedings, the burden of proof under the chapeau of Article XX is on the United States. In the case of Article 2.1, the initial burden is on the United States and Mexico respectively".[260] The United States responds by arguing that "Mexico carries the burden of proof for its claims that the measure taken to comply is inconsistent with a covered agreement in the matter brought by it, and the United States carries the burden of proof with respect to the existence of a measure taken to comply in the matter brought by it".[261] Again, however, neither party explains *how*, in practice, both parties could bear the burden of proof in respect of their own proceedings, given that neither party distinguished between the arguments it made in the proceedings brought by the United States and those it made in the proceedings brought by Mexico.

7.137. Given the special nature of these proceedings, while we will follow the basic principles on burden of proof that have emerged from WTO dispute settlement, we will avoid applying those principles in a mechanistic fashion, because doing so would not only cause unnecessary confusion, but would also risk not respecting parties' due process rights. Given that both parties address overlapping legal issues and present the same sets of exhibits, in both proceedings, and given the narrowly-defined nature of the claims before us, we find it appropriate to apply the above-referenced principles on burden of proof in a cumulative or holistic fashion. That is, since both parties are at the same time the complainant and the respondent in these proceedings, in resolving these issues, we will assess both parties' claims and arguments in a holistic fashion.

7.138. With respect to standard of proof, we recall that the principle in WTO dispute settlement is that the complainant who has the initial burden of proof has to make a *prima facie* case for the burden to shift to the respondent to rebut that case. In this regard, we recall that a *prima facie* case is one which, in the absence of effective refutation by the other party, requires a panel, as a matter of law, to rule in favour of the party presenting the *prima facie* case.[262] Since we will evaluate holistically the parties' submissions in these proceedings, with respect to the issues that we will assess, we will find for the party that overall presents a more convincing case in terms of arguments and evidence.

7.139. Independently of our explanations above regarding the allocation of the burden of proof, and the issue of the standard of proof, in reviewing the parties' arguments in support of their claims, we will be guided by the principle that "the party that asserts a fact is responsible for providing proof thereof".[263] In this regard, we recall that "[i]t is important to distinguish, on the one hand, the principle that the complainant must establish a *prima facie* case of inconsistency with a provision of a covered agreement from, on the other hand, the principle that the party that asserts a fact is responsible for providing proof thereof".[264] We note that the parties also agree with this point. In both its second written submission and its response to the Panels' question, the United States argues that "regardless of which party has the general burden of proof, the party that asserts a fact is responsible for providing proof thereof".[265] Mexico similarly recognizes that, as the Appellate Body explained in the first compliance proceedings in this dispute, "each party bears the burden of substantiating the assertions that it makes".[266]

7.140. We note that the approach we have laid out above is consistent with the statement by the Appellate Body in the first compliance proceedings in this dispute that the burden of proof is not

[258] United States' second written submission, para. 11.
[259] Norway's third party submission, para. 8.
[260] Mexico's response to Panels' question No. 122, para. 248.
[261] United States' response to Panel' question No. 122, para. 441.
[262] Appellate Body Report, *EC – Hormones*, paras. 98, 104.
[263] Appellate Body Report, *US – Tuna II (Mexico)*, para. 283.
[264] Appellate Body Report, *Japan – Apples*, para. 157.
[265] United States' response to Panels' question No. 122, para. 442 (internal citations omitted). See also United States' second written submission, para. 11.
[266] Mexico's response to Panels' question No. 104, para. 205 (citing Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.33).

"an entirely binary issue".[267] The Appellate Body in those proceedings further explained that both parties in a claim under Article 2.1 have "responsibilities" to substantiate their claims and arguments, and that the burden of proof should not be applied "mechanistically".[268] We also find support in the reasoning of the panel in *EC and certain member States – Large Civil Aircraft (Article 21.5 – US)* that "WTO dispute settlement proceedings do not involve any particular temporal sequence of proof. Both parties will adduce evidence in support of their own arguments or to rebut the arguments made by the other at various stages of a dispute, sometimes simultaneously, throughout the entirety of a proceeding".[269]

7.141. Finally, we also consider our approach to be consistent with our obligation under Article 11 of the DSU to conduct an objective assessment of the matter before us, "including an objective assessment of the facts of the case and the applicability of and conformity with the relevant covered agreements".

7.7 Factual findings

7.7.1 Introduction

7.142. The Panels now turn to assess the evidence on the record relating to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean. This will enable us to identify the risk profiles of different fisheries, on the basis of which we will then determine whether the 2016 Tuna Measure is calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean.[270]

7.143. In this section, we (i) outline the findings made by the Appellate Body and the panels in previous stages of this dispute regarding the appropriate methodology to be used in assessing the evidence on the risk profiles of different fishing methods, as well as their factual findings regarding the nature of the risks posed and harms done to dolphins by such methods; (ii) discuss certain preliminary issues on the methodology that we will use in assessing the evidence on the record; (iii) make findings about the risk profiles of individual fishing methods; and finally (iv) provide a comparative assessment of the results of the method-specific findings.

7.7.1.1 Findings made in previous proceedings

7.144. We recall that these compliance proceedings are not occurring in a vacuum, but rather form part of a *continuum* of events, beginning with the original panel proceedings. In this connection, we note that numerous findings on the methodology to assess evidence and on the facts have been made over the course of this dispute. Such findings are relevant to our task of analyzing the evidence and assessing the risks posed to dolphins by the use of different fishing methods in different parts of the ocean. In our view, these factual findings must be taken into account in our analysis of the factual record in order to avoid any doubts as to the objectivity of these compliance proceedings.[271] In this Section, we will discuss these existing findings and our interpretation of how they should be applied in the context of the present proceedings.

7.7.1.1.1 Previous findings regarding the appropriate methodology to be used

7.145. We observe that in previous stages of this dispute, the Appellate Body has provided guidance on the nature of the assessment that should be undertaken in determining if the Tuna Measure is adequately calibrated to the relative risks to dolphins arising from the use of different fishing methods in different parts of the ocean.

7.146. In the first compliance proceedings and in the context of completing the legal analysis after having reversed some of the legal findings made by the compliance panel regarding Article

[267] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.34.
[268] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.34.
[269] Panel Report, *EC and certain member States – Large Civil Aircraft (Article 21.5 – US)*, para. 6.50.
[270] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.169.
[271] See Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 5.9 (referring to Appellate Body Reports, *US – Softwood Lumber VI (Article 21.5 – Canada)*, para. 103; *US – Upland Cotton (Article 21.5 – Brazil)*, para. 386).

2.1 of the TBT Agreement[272], the Appellate Body found that the panel had not put itself in a position to conduct an assessment of whether the 2013 Tuna Measure was even-handed in addressing the respective risks of setting on dolphins in the ETP large purse-seine fishery versus other fishing methods outside that fishery.[273] The Appellate Body explained that this was because, in the panel's assessment of the relative harms posed to dolphins by setting on dolphins versus other fishing methods, the compliance panel focused almost exclusively on the unobserved harms associated with different fishing methods.[274] The Appellate Body explained that although there was considerable evidence on the record concerning the nature and scope of the relative risks associated with different fishing methods in different areas of the ocean[275], the compliance panel did not address what that evidence indicated in respect of the overall levels of risks in different fisheries, and how these fisheries compared to each other. The Appellate Body also held that it failed to consider the relative risks posed by different fishing methods in respect of *observed* mortality or serious injury, while focusing solely on the narrower difference in the respective risks attributable to *unobserved* harms.[276] In other words, the Appellate Body faulted the first compliance panel for conducting a narrow assessment of the relative risks posed by different fishing methods, in particular, because it failed to consider the relative risks arising from observed mortalities and serious injuries to dolphins.

7.147. As we understand it, the Appellate Body's finding in this connection indicates that, in our factual assessment, we need to undertake an evaluation of the *overall levels of relative risks* or *levels of harms*[277] attributable to different fisheries, including in respect of both observable *and* unobservable harms. We note, however, that the nature of the concept of "overall levels of relative risks", and what it entails in practical terms, is not immediately clear.

7.148. In this regard, we observe that both parties presented arguments on how the Panels should understand the concept of "overall relative levels of harm". Mexico argues they can be understood as the aggregate of direct and observed dolphin mortality and serious injury together with the indirect and unobserved harms to dolphins caused by a particular fishing method.[278] For its part, the United States considers that the expression "overall relative levels of harm" conveys two concepts: (i) the use of the words "overall" and "harms" conveys the scope of harms that the Panels should examine, i.e. mortalities and serious injuries, as well as those unobservable harms that are "a result of the chase itself"[279], and (ii) the inclusion of the word "relative" conveys that the Panels should compare these harms across fishing methods and fisheries.[280]

7.149. In our view, an assessment of the *overall levels of relative risks* attributable to different fisheries, including in respect of both observable *and* unobservable harms, entails a comparison of the different risks to dolphins arising from the use of different fishing methods in different parts of the ocean. In particular, it entails an assessment of the risks to dolphins posed by the fishing method predominately used by Mexico (*i.e.* setting on dolphins in the large purse seine fishery in the ETP), which is ineligible for the dolphin-safe label, in comparison with the risks to dolphins

[272] We observe that the Appellate Body stated that, in applying the legal test under Article 2.1 of the TBT Agreement, the "Panel was required to assess whether the certification and tracking and verification requirements [were] 'calibrated' to the risks to dolphins arising from different fishing methods in different areas of the oceans" and concluded that, the first compliance panel's analysis "failed to encompass consideration of the relative risks to dolphins from different fishing techniques in different areas of the oceans, and of whether the distinctions that the amended tuna measure draws in terms of the different conditions of access to the dolphin-safe label are explained in the light of the relative profiles". Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.169.

[273] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.249.

[274] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.245 and 7.249.

[275] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.243.

[276] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.248.

[277] We note that in its report in the first compliance proceedings, the Appellate Body did not use necessarily the same terminology when referring to the concept of "overall relative risks". While it used the expression "overall relative harms" in para. 7.246, it used the expression "overall relative risks or levels of harm" in paras. 7.252 and 7.353. To us, there is a relationship between the concepts of relative risks and relative harms insofar as the determination of the *levels of risks* can be seen as an analysis where the likelihood of occurrence of an adverse event, in this case, observable and unobservable harms to dolphins, is assessed. Consequently, an assessment of the *levels of risks* involves an assessment of the *levels of harms*.

[278] Mexico's response to Panels' question No. 96.

[279] United States' response to Panels' question No. 96 (referring to Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico),* para. 7.116; Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.122).

[280] United States' response to Panels' question No. 96.

posed by other fishing methods in different parts of the ocean.[281] As a basis to conduct this comparison, we observe that we will need to establish the risk profiles of the relevant fishing methods in different areas of the ocean, taking into account data on both observable and unobservable harms.

7.150. In this regard, we are mindful of the difficulty posed by the scientific and technical nature of the information needed to undertake this task and the inherent difficulties associated with this type of data. Indeed, we note that in the first compliance proceedings, the Appellate Body itself recognized "the difficulty associated with making such an assessment of the respective risks, particularly in the light of the highly contested evidence adduced by the parties", and also stated that "the panel was [not] necessarily in a position to come to a definitive or precise view as to the extent to which the relevant risk profiles differed".[282] In this vein, we asked the parties during the course of our substantive meeting whether, in their view, the Panels should consult with external experts to better understand the different risk profiles in different fisheries. Both parties agreed that it was in the Panels' discretion to seek such guidance from independent and qualified experts. The United States submitted that even if the Panels' have this discretion, they could still come to a determination on this issue based on the evidence on the record.

7.151. In our view, the difficulties that the Appellate Body recognized in the first compliance proceedings are equally present in these proceedings. Indeed, we are not necessarily in a position to come to a definitive or precise view as to the extent of relevant risks and how precisely they may differ across different fisheries in different parts of the ocean. Nevertheless, we decided not to consult with external experts for the purpose of enhancing our understanding of the evidence presented by the parties. This is because our ultimate task in these proceedings is to establish whether the 2016 Tuna Measure is consistent with the United States' obligations under Article 2.1 of the TBT Agreement, and not to conduct a fully-fledged scientific evaluation of the different risks that dolphins face across the globe. While our analysis under Article 2.1 of the TBT Agreement requires a determination of the different risk profiles of different fishing methods in different parts of the ocean, we consider that this can and should be done on the basis of the available scientific information that has already been produced by experts on the matter and that has been submitted as evidence by the parties. In this connection, our task is to conduct a thorough and objective review of the evidence on the record, and not necessarily to come to conclusions aiming to establish scientific or environmental truth. We note that, as the evidentiary record and the arguments of the parties show, the relevant scientific and environmental issues are still highly debated by experts in the field of marine biology and fisheries management. We will therefore conduct our assessment in light of such inherent difficulties and limitations in the evidence on the record, and the divergence in the arguments presented by the parties on the basis of that evidence.

7.152. With these caveats in mind, and in the light of the Appellate Body's finding on the relevant analysis, we will undertake an evaluation of the overall levels of relative risks attributable to different fisheries, including in respect of both observable and unobservable harms.

7.7.1.1.2 Previous factual findings: observable and unobservable harms to dolphins

7.153. In the previous stages of these proceedings, both the panels and the Appellate Body made a number of factual findings relevant to our current examination, in particular, regarding the harms caused to dolphins by different fishing methods in different areas of the ocean. In this section, we will briefly discuss those findings.

7.154. In doing so, we are mindful that the Appellate Body has stated that "doubts could arise about the objective nature of an Article 21.5 panel's assessment" if, on a specific issue, that panel were to "deviate from the reasoning" in the original report "in the absence of any change in the underlying evidence in the record".[283] In other words, in conducting the factual assessment described above, we consider that we should take due account of the relevant reasoning and

[281] We observe that neither party has submitted evidence concerning high-seas driftnet fishing.
[282] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.252.
[283] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 5.9 (referring to Appellate Body Reports, *US – Softwood Lumber VI (Article 21.5 – Canada)*, para. 103; *US – Upland Cotton (Article 21.5 – Brazil)*, para. 386). Although these cited statements may not directly refer to the context of our current proceedings, i.e. because they refer to the nature of the assessment of a first compliance panel, we consider them to be applicable *mutatis mutandis* in our current situation.

findings that led to the original and 2013 Tuna Measures being found to be WTO-inconsistent. We will thus take account of this reasoning, unless we find that there has been a relevant change in the underlying evidence in the record.

7.155. We now move to discuss those previous relevant factual findings concerning harms to dolphins in the ETP large purse-seine fishery and other fisheries. We note that such harms can be broadly categorized as relating to (i) observable harms, both observed and unobserved, and (ii) unobservable harms.

7.156. Regarding observable harms, the first compliance panel found that these are "the kind of interactions that can and, under the amended tuna measure, must be certified, and whose occurrence renders ineligible for the dolphin-safe label any tuna caught in the set in which the harmful interaction (i.e. the death or serious injury) occurred".[284] The first compliance panel also described observable harms as "perceptible during fishing operations"[285], but also found that the concept extended beyond certified serious injuries or mortalities, and could include dolphin mortality or serious injury occurring after the end of the fishing operation. In this vein, the compliance panel stated that "[w]hile it may be that dolphins injured in gillnets *die* at some later time, injuries such as those leading to gillnet parts 'protruding from the mouth' of dolphins would seem clearly to be the kind of 'serious injury' that is observable".[286]

7.157. Regarding unobserved harms, the original panel broadly described these as "negative impacts on dolphins beyond observed deaths and serious injuries".[287] It also explained that it understood "the United States' use of the terms 'observed mortalities and injuries' as referring to dolphin killings or serious injuries that are reported during (or immediately after the conclusion of) dolphin-setting operations. Thus, to the extent that setting on dolphins also results in dolphin deaths or injuries that are not observed or taken into account as observed killings or serious injuries, the other adverse effects identified by the United States may be described as unobserved deaths or injuries of dolphins".[288] Moreover, in concluding on the issue of unobserved harms caused by setting on dolphins, the original panel found "a degree of uncertainty in relation to the extent to which setting on dolphins may have an adverse impact on dolphins beyond observed mortality".[289] Nonetheless, the original panel considered that sufficient evidence had been put forward by the United States to raise a presumption that genuine concerns exist in this respect.[290]

7.158. The concept of unobserved harms was also discussed in the first compliance proceedings. In this connection, we note that the first compliance panel recalled the findings made in the original proceedings, including that setting on dolphins causes unobservable harms to dolphins beyond mortality and serious injury, that these harms arise "as a result of the chase itself".[291] The first compliance panel described unobservable effects as "negatively impacting the health and well-being of dolphin populations"[292] and also clarified that "[n]one of […] fishing methods other than setting on dolphins inflict the same kinds of unobservable harms that are caused by net sets".[293] In relation to ETP large purse seine fishing by setting on dolphins, the compliance panel noted that "even if there are tuna fisheries using … gear types that produce the same number of dolphin mortalities and serious injuries allowed or caused in the ETP … it is simply not the case that such fisheries are producing the same level of unobserved harms, such as cow-calf separation, muscular damage, immune and reproductive system failures, which arise as a result of the chase in itself".[294]

7.159. We note that in drawing further distinctions between the unobservable harms of setting on dolphins and other fishing methods, the first compliance panel introduced the notion of "direct" and "indirect" harms, clarifying that "indirect and unobservable harms may follow consequentially

[284] Panel Report, *US – Tuna II* (Mexico) (*Article 21.5 – Mexico),* para. 7.132.
[285] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico),* para. 7.579.
[286] Panel Report, *US – Tuna II (Mexico)* para. 7.736, *US – Tuna II (Mexico) (Article 21.5 – Mexico),* para. 7.130.
[287] Panel Report, *US – Tuna II (Mexico),* para. 7.484.
[288] Panel Report, *US – Tuna II (Mexico),* fn. 675.
[289] Panel Report, *US – Tuna II (Mexico),* para. 7.504.
[290] Panel Report, *US – Tuna II (Mexico),* para. 7.504.
[291] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico),* para. 7.579 (referring to Appellate Body Report, *US – Tuna II (Mexico)*, paras. 246 and 289).
[292] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico),* para. 7.132.
[293] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico),* para. 7.132.
[294] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico),* para. 7.581.

from observable harms caused by tuna fishing methods other than setting on dolphins"[295], thus constituting a broader concept, not necessarily involving the element of chase.

7.160. Regarding the types of unobservable harms caused by setting on dolphins, the first compliance panel stated that, while the evidence on the record "clearly establishes that tuna fishing methods other than setting on dolphins pose serious threats to dolphins, we have been unable to find any indication in this evidence that fishing methods other than setting on dolphins cause the kinds of unobservable harms that are caused by setting on dolphins".[296] Hence, despite the "degree of uncertainty" noted by the original panel "in relation to the extent to which setting on dolphins may have an adverse impact on dolphins beyond the observed mortality"[297], the first compliance panel noted the same genuine concerns regarding setting on dolphins. The first compliance panel also stated that "unlike the kinds of unobservable harms caused by setting on dolphins, these types of indirect harms are thus qualitatively different from the kind of unobservable harms caused by setting on dolphins" and that these "are harms whose occurrence cannot be recorded".[298]

7.161. We are mindful that during the appeal in the first compliance proceedings, Mexico claimed that the panel had erred in finding that fishing methods other than setting on dolphins have no unobservable adverse effects.[299] In essence, Mexico claimed that the first compliance panel had found that all of the effects on dolphins caused by fishing methods other than setting on dolphins would be "observable" if a trained person were watching for them, but that this was a factual error given that Mexico had submitted evidence that not all adverse effects of fishing methods other than setting on dolphins are observable.[300] The Appellate Body found that Mexico had not properly substantiated its claim nor established that the compliance panel found that fishing methods other than setting on dolphins have no unobservable adverse effects[301], in particular because it did not read the compliance panel's reasoning to include any finding that all of the adverse effects on dolphins caused by other fishing methods would be "observable" if a trained person were watching for them.[302] According to the Appellate Body, the compliance panel had rather found that no fishing method inflicts the same *kinds* of unobservable harms as the ones caused by purse seine fishing by setting on dolphins.[303]

7.162. With respect to fishing methods other than setting on dolphins, we note that there are a number of factual findings that have been made in previous stages of these proceedings regarding the adverse effects of particular fishing methods in different parts of the ocean. We will discuss these findings when we examine each fishing method below, and take them into account unless any new evidence presented in these proceedings requires us not to do so.

7.7.1.2 Preliminary issues about the methodology to assess evidence

7.163. As we mentioned in paragraph 7.150 above above, there are a number of difficulties associated with our task of evaluating the overall levels of relative risks of different fisheries and the assessment of the evidence on the record. In particular, we note that there are three preliminary issues that must be dealt with before moving into our evidential assessment: (i) the methodology that we should use to conduct the assessment of the different risk profiles of the relevant fisheries; (ii) the differences between different kinds of harms posed to dolphins; and (iii) certain difficulties pertaining to the assessment of the evidence on the record. We will discuss each of these matters in turn.

7.7.1.2.1 The methodology that we should use to conduct the assessment of the different risk profiles of the relevant fisheries

7.164. Although the Appellate Body has provided guidance as to the general nature of the task of assessing the evidence, namely, that we should undertake an evaluation of the overall levels of

[295] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico),* para 7.134.
[296] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico),* para. 7.131.
[297] Panel Report, *US – Tuna II (Mexico),* para. 7.504.
[298] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico),* para. 7.134.
[299] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico),* para. 7.198.
[300] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico),* para. 7.198.
[301] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico),* para. 7.202.
[302] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico),* para. 7.200.
[303] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.200.

relative risks associated with different fisheries, including in respect of both observable and unobservable harms, it is not clear *how* this assessment should be conducted. In our view, this is a crucial issue, and its resolution will determine, in concrete and practical terms, the way in which we should parse through the evidence in order to determine the different risk profiles necessary for our analysis under Article 2.1 of the TBT Agreement.

7.165. We note that there are two dimensions to this issue: one relating to the general approach that should be used, including whether the Panels' assessment should be qualitative, quantitative, or a mix of the two, and which relevant indicators or variables should be taken into account when comparing risk levels as between different fisheries; and another relating to the use of a standardized benchmark or metric, so that the results from the different scientific studies can be adequately contrasted and compared. We note that the parties have significant disagreements particularly concerning the second dimension.

7.7.1.2.1.1 General approach

7.166. The United States argues that the Panels should undertake a mixed qualitative and quantitative assessment of the different risks to dolphins arising from the use of different fishing methods in different areas of the ocean. The United States contends that unobservable harms must be part of the assessment of the overall relative risk posed by setting on dolphins, compared to other fishing methods, but that due to their nature, these harms are not susceptible of precise quantification. Consequently, the United States submits that this aspect of the Panels' assessment must be qualitative. Regarding observable harms arising from dolphin mortalities and serious injuries and the frequency of interactions with fishing vessels that are dangerous to dolphins, the United States argues that they can be measured quantitatively.[304]

7.167. Regarding the variables or indicators that should be used, the United States contends that the Appellate Body in the first compliance proceedings made clear that any subsequent compliance panel should assess the overall relative risk profile for dolphins of different fishing methods in different fisheries, and that, consequently, any indicators or variables that are relevant to the overall risk profile of a fishery or fishing method should be included in the Panels' analysis, and no relevant indicators or variables should be excluded from the analysis. In particular, the United States submits that three relevant indicators or variables should be taken into account: (i) the fact that setting on dolphins intentionally targets dolphins and therefore involves dangerous interactions with dolphins every time it is used, whereas other fishing methods do not; (ii) the fact that setting on dolphins causes a unique category of unobservable harms not caused by other fishing methods; and (iii) the relative levels of dolphin mortalities caused by the different fishing methods in different fisheries. For the United States, the Panels' analysis should balance these three factors, with unobservable harms being taken into account on a qualitative basis, and levels of dolphin interaction and dolphin mortalities caused by different fishing methods in different fisheries being considered quantitatively.[305]

7.168. Mexico argues that a calibration analysis requires a relative assessment of risks to dolphins arising from the use of different fishing methods in different areas of the ocean. For Mexico, a relative assessment requires that a standardized benchmark, i.e. a consistent method of comparison, be used to assess relative risks.[306] In Mexico's view, "direct harms" are at least potentially measurable if there is data available of a sufficient quality.[307] Mexico maintains that in this case, the absence of comprehensive data on some fisheries makes the application of a quantitative evaluation very challenging, but that at the same time a purely qualitative analysis may be overly subjective and arbitrary. Mexico argues that, by definition, unobservable harms cannot be measured, and consequently the Panels can only speculate on their existence. Mexico also submits that presumptions the Panels may make about the existence of risks, including of unobservable harm must be made in a consistent manner across all fisheries.[308]

7.169. We agree with the United States that, as the Appellate Body has already clarified that the nature of our task is to assess the overall relative risk profiles for dolphins of different fishing

[304] United States' response to Panels' question No. 116.
[305] United States' response to Panels' question No. 116. *See* also United States' first written submission, paras. 97-103; second written submission, para. 77.
[306] Mexico's response to Panels' question No. 79.
[307] Mexico's response to Panels' question No. 116.
[308] Mexico's response to Panels' question No. 116.

methods in different areas of the ocean, all variables apt for measuring the nature and degree of observed and unobserved harms are in principle relevant to the determination of the risk profiles. These variables would include the number of observed mortalities and serious injuries, the nature and extent of any unobservable harms caused by different fishing methods in different areas of the ocean, the nature and extent of the interaction with dolphins of the fishing method in a given area of the ocean, if any, and any other indicators that are helpful in describing the risks to dolphins arising from the use of different fishing methods in different areas of the ocean.

7.170. In relation to the issue of whether our analysis should be qualitative, quantitative, or a mix of the two, we agree with the parties that, given the inherent difficulties of quantifying unobservable harms, our approach should encompass both a quantitative and a qualitative dimension. Bearing in mind our obligation to conduct an objective assessment of the matter, we will rely to the greatest extent possible on a quantitative analysis, and recur to a qualitative assessment in cases where this seems to be the most reasonable avenue to properly gauge and describe the risks at issue.

7.7.1.2.1.2 Use of a standardized benchmark

7.171. We now turn to the issue of the use of a standardized benchmark or metric when determining and comparing the different risk profiles. The importance of this issue cannot be understated. Because the different scientific evidence on the record does not necessarily follow the same methodology or present its results in a homogeneous and consistent manner, there is a need to use a standardized benchmark so that comparisons across studies are meaningful and adequate. In other words, there is a need to use a standard metric to assess the risks posed to dolphins so that the relevant information can be extracted in a coherent and comparable manner from the evidence on the record. As noted above, the parties disagree significantly on what would be an appropriate benchmark. In particular, they disagree on whether the Panels should use a (i) Potential Biological Removal (PBR) methodology or a (ii) *per set* comparison of dolphin mortalities.

7.172. Mexico argues that the Panels should assess the risks to dolphins in a given fishery by applying the PBR methodology, which measures the maximum number of animals that may be removed from an animal stock (such as dolphins) without affecting that stock's optimum sustainable population.[309] Mexico contends that the PBR level can first be determined for an ocean area and then compared to the level of animal stock removal to assess the level of risk to the sustainability of the stock.[310] Alternatively, Mexico requests the Panels to use an "absolute levels of adverse effects on dolphins" methodology, whereby the Panels would examine the absolute levels of dolphin mortalities and serious injury caused by different fishing methods in different areas of the ocean.[311]

7.173. The United States disagrees with both of Mexico's proposed approaches. It argues instead for a per set methodology that would measure and compare the level of harm caused to dolphins by units of effort across different fishing methods. According to the United States, both methodologies proposed by Mexico are inconsistent with the calibration analysis articulated by the Appellate Body. Regarding the first methodology, the United States argues that Mexico's metric misunderstands the purpose of the eligibility criteria, which do not adopt a fishery-by-fishery approach but rather a fishing method-by-fishing method approach[312], and disregards the fact that the Measure at issue is a dolphin-safe label rather than a dolphin-sustainability label.[313] Regarding the second method proposed by Mexico, the United States contends that Mexico's metric invites the Panels to conduct an analysis that does not address all aspects of the harms of different fishing methods and does not take a relative approach.[314]

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[309] Mexico's first written submission, para. 240. Mexico notes that the Appellate Body has commented on this method by stating: "We do not exclude that reference to such objective indicators might assist in an assessment of whether regulatory differences in the treatment of different fisheries can be explained on the basis that such treatment is calibrated to, or commensurate with, the relative risks to dolphins arising from different fishing methods in different areas of the oceans". Appellate Body Report, *US - Tuna II (Mexico) (Article 21.5 – Mexico)*, fn. 827.

[310] Mexico's first written submission, para. 242.

[311] Mexico's first written submission, para. 247.

[312] United States' second written submission, para. 119.

[313] United States' second written submission, para. 122.

[314] United States' second written submission, para. 126.

7.174. We will begin our analysis by addressing the methodologies proposed by Mexico, namely, the PBR methodology and the "absolute levels of adverse effects on dolphins" methodology. We will then proceed to assess the per set methodology proposed by the United States.

7.7.1.2.1.3 PBR methodology

7.175. As noted above, Mexico argues that the Panels should use the PBR methodology, which measures the maximum number of animals that may be removed from an animal stock (such as dolphins) without affecting that stock's optimum sustainable population.[315] For Mexico, the use of the PBR methodology would capture all of the relevant factors that need to be taken into account by the Panels, and it provides a common benchmark against which to measure the different risk profiles of different fisheries. Mexico contends that there is sufficient information on the record to enable the Panels to find, on the basis of the PBR methodology, that the 2016 Tuna Measure is not calibrated.[316]

7.176. Mexico submits that the Department of Commerce used the PBR methodology to evaluate the dolphin stocks that interact with the dolphin encirclement fishing method in the ETP.[317] Mexico also contends that, where only a small absolute number of mortalities could result in the extinction of a dolphin stock, such potential extinctions are harmful to dolphins.[318]

7.177. Mexico also notes that in the first compliance proceedings, the Appellate Body stated that it did "not exclude that reference to such objective indicators [such as the PBR] might assist in an assessment of whether regulatory differences in the treatment of different fisheries can be explained on the basis that such treatment is calibrated to, or commensurate with, the relative risks to dolphins arising from different fishing methods in different areas of the oceans".[319] According to Mexico, this statement lends support to the idea of using the PBR methodology in our assessment.

7.178. The United States opposes the use of the PBR methodology for four reasons. First, the United States contends that the 2016 Tuna Measure is not a sustainability measure, as its objectives make clear, and that as such, the PBR methodology is inconsistent with the design of the Measure, which tracks harm to individual dolphins on a per set basis. The United States argues that under the PBR methodology, mortality in a fishery may be sustainable even if there are many deaths, on a per set basis, and may be unsustainable even if there are only very few dolphins killed on a per set basis, as it depends on the population and reproduction rates of the relevant dolphin stocks. For the United States, Mexico's claim that a PBR methodology must be used to assess whether the Tuna Measure is calibrated is akin to concluding that the objective of the Tuna Measure has to become sustainability in order to be WTO-consistent. The United States notes, however, that the previous DSB recommendations and rulings confirm that this is not the case.[320] The United States claims that the findings underlying the DSB recommendations and rulings establish that "the preservation of individual dolphin lives is just as much an act of conservation as is a program to encourage recovery of a particular population", and that the objective of the Tuna Measure of protecting "the well-being of individual dolphins" is legitimate.[321]

7.179. Second, the United States claims that Mexico's argument conflicts with the very structure of the Tuna Measure, as the eligibility criteria make a distinction based on fishing methods on the one hand (setting on dolphins compared to other fishing methods), and sets or gear deployments on the other hand (sets where a dolphin was killed or seriously injured compared to sets where no such harm took place). For the United States, the eligibility criteria do not draw distinctions on a fishery-by-fishery basis. The United States clarifies this point by arguing that, for example, the eligibility criteria do not deny access to the label for just the tuna product produced from setting

[315] Mexico's first written submission, para. 240.
[316] Mexico's response to Panels' question No. 116.
[317] Mexico's first written submission, para. 41.
[318] Mexico's responses to the Panels' questions, para. 41; second written submission, para. 64.
[319] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, fn. 827.
[320] United States' response to Panels' question No. 33. *See* also United States' third written submission, paras. 36-39; second written submission, paras. 36-38.
[321] United States' response to Panels' question No. 33 (referring to Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.527).

on dolphins in the ETP large purse seine fishery, but rather, they deny access to the label for all tuna product produced from setting on dolphins, no matter where the set occurs.[322]

7.180. Third, the United States contends that a PBR cannot be created for an entire fishing method because it is an inherently area-specific methodology. The United States argues that the PBR methodology concerns particular stocks of dolphins that may be affected by one or more fisheries. The United States claims that this means that the effects on a particular population of a particular fishing method cannot be disassociated from the effects on the same population of a different fishing method, and that a single fishery could have multiple PBRs if there are multiple species of dolphins living in proximity with one another. In the United States' view, these considerations render the PBR methodology inappropriate for the assessment called for by the Appellate Body.[323]

7.181. Finally, the United States contends that the PBR methodology is unworkable as there is simply not enough data on the record to conduct the required evaluation using this methodology.[324]

7.182. In response to the United States, Mexico argues that, in accordance with the reasoning of the Appellate Body in the first compliance proceedings, calibration must be undertaken in reference to the risks to dolphins arising from the use of different fishing methods in different ocean areas, and thus, for the purpose of calibration, the United States is incorrect in arguing that Mexico's approach is "inconsistent with the fishing method approach of the eligibility criteria". Mexico also contends that the United States is factually incorrect when it characterizes the eligibility criteria under the Tuna Measure as having a fishing method approach because the designation of driftnet fishing as ineligible applies only to high seas driftnet fishing. Mexico thus submits that the Tuna Measure's eligibility criteria apply to both fishing method and ocean areas and that therefore the analysis of calibration must take into account both the method and the area.[325]

7.183. Mexico further notes the existence of a different US law, administered by the same agency that administers the Tuna Measure, which makes reference to the PBR methodology. According to Mexico, this law is evidence that the United States believes the PBR can and should be used to determine the risks that dolphins face in different parts of the ocean. Additionally, Mexico argues that, on 15 August 2016, the US Department of Commerce issued regulations for evaluating the regulatory programs of other countries for reducing marine mammal mortality and injury in their export fisheries.[326] Mexico submits that under those regulations, foreign countries are required to create assessments that estimate population abundance for marine mammal stocks that are killed or seriously injured in their territorial waters, and that, based on an evaluation of data submitted by each harvesting nation, the Commerce Department will either issue a comparability finding or deny a comparability finding with an explanation for such denial, and it will also specify the fish and fish product subject to the denial. Mexico further submits that if a comparability finding is denied or is terminated, imports of fish and fish products from the fishery in question will be subject to an import ban.[327]

7.184. The Panels begin by noting that the PBR methodology enables calculation of the maximum possible number of animals, in this case dolphins, which can be removed from an animal stock without affecting the population or its sustainability. We observe that in the context of the present proceedings, if this methodology were to be used, it would result in an estimation of the maximum numbers of dolphins in a particular stock that could be killed, while allowing that stock of dolphins to reach or maintain its optimum sustainable population.[328] In this regard, use of a PBR

[322] United States' response to Panels' question No. 33.
[323] United States' response to Panels' question No. 33.
[324] United States' second written submission, para. 120; response to Panels' question No. 33.
[325] Mexico's response to Panels' question No. 80.
[326] Mexico's first written submission, para. 151 (referring to US Department of Commerce, Fish and Fish Product Import Provisions of the Marine Mammal Protection Act; Final Rule, 81 Fed. Reg. 54390 (August 15, 2016), (Exhibit MEX-49).
[327] Mexico's first written submission, paras. 152-158.
[328] In this connection, we note that under the US Marine Mammal Protection Act (MMPA), PBR is defined as the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population. The PBR level is the product of the following factors: (a) The minimum population estimate of the stock; (b) one-half of the maximum theoretical or estimated net productivity rate of the stock at a small population size; and (c) a

methodology seems to us to be suitable in the context of policies that concern the sustainability of marine mammal stocks and where a certain level of mortalities or serious injury is tolerated. Indeed, Mexico itself characterises this methodology as involving a comparison between the levels of animal stock removal to assess the level of risk to the sustainability of the stock.[329] Thus, to us, a PBR methodology is more concerned with the sustainability of a stock of animals than with the well-being of the individual animals composing that stock, as it would tolerate a certain number of deaths.

7.185. We observe, however, that because of the very nature of the PBR methodology, and in particular because it is more concerned with the sustainability of a stock than with the effects of fishing on individual dolphins, using it in the context of these proceedings would not be useful, given the objectives pursued by the Tuna Measure, as well as with our task of evaluating the *overall levels of relative risks* attributable to different fisheries, and the subsequent determination of the different risk profiles.

7.186. We recall that the objectives of the Tuna Measure are, first, ensuring that consumers are not misled or deceived about whether tuna products contain tuna that was caught in a manner that adversely affects dolphins; and, second, contributing to the protection of dolphins by ensuring that the US market is not used to encourage fishing fleets to catch tuna in a manner that adversely affects dolphins.[330] In this connection, we note that there is no particular indication that the Tuna Measure is directly concerned with the protection of the population levels of dolphins. Rather, it seems to us to be concerned with the protection of the well-being of dolphins, and with informing consumers whether the tuna used in the production of particular tuna products was caught in a set that harmed dolphins. In this sense, we understand the Tuna Measure to be concerned with the risks facing dolphins at an individual level, rather than at a population level. Having said that, we recognize that mortality or serious injury suffered by individual dolphins may also have population-level consequences. That, however, is not directly relevant to the findings that we will make about the overall levels of relative risks posed to dolphins by different fishing methods in different areas of the ocean.

7.187. In this connection, the first compliance panel found that the 2013 Tuna Measure was more concerned with the effects of tuna fishing on the well-being of individual dolphins than on the state of a particular dolphin population considered globally or statistically.[331] The original panel also came to a similar conclusion when it stated that it was "not persuaded that the objective of protecting dolphins through the US dolphin-safe provisions is to be understood exclusively, or even primarily, in terms of dolphin population recovery".[332]

7.188. In this vein, we are not persuaded that a methodology that is primarily aimed at assessing the sustainability of an animal stock but that nonetheless tolerates the existence of mortalities is in line with the objectives of the Tuna Measure, and consequently, is appropriate for an assessment of the overall levels of relative risks posed to dolphins for the purposes of the present proceedings. By allowing the existence of some dolphin mortalities and focusing primarily on the population levels, the PBR methodology prioritizes the sustainability of the population rather than the well-

recovery factor of between 0.1 and 1.0. (Exhibit MEX-49), p. 54400 and *Earth Island Institute v. Hogarth*, 484 F.3d 1123 (9th Cir. 2007), (Exhibit MEX-3), p. 8. *See* also Panel Report, *US – Tuna II (Mexico)*, fn. 716.

[329] Mexico's first written submission, para. 242. We note that this characterization was also argued by Mexico during the first compliance proceedings: "On appeal, Mexico argues for the use of an 'objective, scientifically-established' benchmark – such as potential biological removal (PBR) levels – that could be used to compare how different fishing methods each affect the sustainability of dolphin populations". Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico),* fn. 827.

[330] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico),* para. 7.16; Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.525; Appellate Body Report, *US – Tuna II (Mexico)*, para. 325; Panel Report, *US – Tuna II (Mexico)*, paras. 7.401, 7.413, and 7.425.

[331] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.527. We are nonetheless mindful that the original panel itself recognized that the conservation of dolphin populations might be one of the objectives of the Tuna Measure by stating that the "US objectives in relation to dolphin protection are not limited to the conservation of dolphin populations or to the avoidance of direct mortality". Panel Report, *US – Tuna II (Mexico)*, para. 7.596. Although the first compliance panel took note that the original panel recognized that to the extent that addressing adverse effects arising from observed and unobserved mortalities and serious injuries to individual dolphins might also be considered as seeking to conserve dolphin populations, and that, consequently, the US objectives also incorporate considerations regarding the conservation of dolphin stocks, it was clear in stating that, in their view, the Tuna Measure was more concerned with the "well-being of individual dolphins".

[332] Panel Report, *US – Tuna II (Mexico)*, paras. 7.550 and 7.735.

being of individual dolphins. To us, this is difficult to reconcile with the objectives of the Tuna Measure.

7.189. We also consider that the PBR methodology would not enable us to fully carry out the inquiry entrusted to us by the Appellate Body. We recall that the Appellate Body has instructed us to assess the *overall levels of relative risks* posed by different fishing methods in different areas of the ocean. In our view, such an inquiry requires us to consider both mortalities and serious injuries, and both observable and unobservable harms. However, under the PBR methodology, we would potentially have to overlook mortalities that do not endanger the population of dolphins in a particular fishery. Additionally, we could not have regard to serious injuries, or to unobservable effects that do not have population-level consequences. In our view, this would be inconsistent with the Appellate Body's guidance.

7.190. In our view, the PBR methodology also sits uncomfortably with the design and structure of the 2016 Tuna Measure. We recall that, under the eligibility criteria, tuna caught outside the ETP large purse seine fishery or a large scale high seas driftnet fishery is ineligible for a dolphin-safe label if it was caught in a set or gear deployment in which dolphins were killed or seriously injured. Similarly, under the certification requirements, the 2016 Tuna Measure provides that, for a tuna product to be labelled dolphin-safe, it must be accompanied by certain certifications that the eligibility requirements were met, in particular that "no purse seine net or other fishing gear was intentionally deployed on or used to encircle dolphins … and that no dolphins were killed or seriously injured in the sets or other gear deployments in which the tuna were caught".[333] Thus, disregarding mortalities with the view to prioritizing population levels, and ignoring non-fatal serious injuries, would be difficult to reconcile with the architecture of the measure, which by its own terms is concerned with the mortality and serious injury of individual dolphins, on a per set basis, rather than with the overall sustainability of dolphin stocks.

7.191. Finally, we find inapposite Mexico's argument that the PBR methodology is employed in a different US law administered by the same agency that administers the Tuna Measure. The fact that the United States, in a different regulatory context and for a different measure, has decided to use a PBR methodology, has no relevance to our assessment of the 2016 Tuna Measure, whose objectives and structure, as we have noted above, are difficult to reconcile with a PBR methodology.

7.192. For the foregoing reasons, the Panels reject Mexico's argument that in our assessment, we should use a PBR methodology to assess the overall levels of relative risks attributable to different fisheries, including in respect of both observable and unobservable harms.

7.7.1.2.1.4 Absolute levels of adverse effects

7.193. We now turn to assess Mexico's contention regarding a methodology that focuses on the absolute levels of adverse effects. We recall that Mexico claims that the Panels should use an "absolute levels of adverse effects on dolphins" methodology whereby the Panels would examine the absolute levels of dolphin mortalities and serious injury caused by different fishing methods in different areas of the ocean.[334]

7.194. The United States disagrees with Mexico's position and contends that Mexico's metric invites the Panels to conduct an analysis that does not address all aspects of the harms of different fishing methods and does not take a relative approach.[335]

7.195. We note that, as discussed in section 7.7.1.1.1 above, the Appellate Body has already clarified the nature of our task, namely that in our factual assessment we need to undertake an evaluation of the *overall levels of relative risks* attributable to different fisheries, including in respect of both observable *and* unobservable harms. Because we need to undertake a comparative assessment of the different risk profiles, we do not find it appropriate to primarily use a methodology that takes the absolute levels of adverse effects on dolphins into account. This is because such a methodology would not necessarily deal with the issue of how to compare the

[333] Under the 2013 Tuna Measure, captains were only required to certify that no dolphins were killed or seriously injured in the gear deployment(s) in which the tuna was caught. Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 6.10.

[334] Mexico's first written submission, para. 247.

[335] United States' second written submission, para. 126.

levels of adverse effects on dolphins arising from different fishing methods in different areas of the ocean, or contextualize them in the light of the relative extent and intensity to which different fishing methods are used, in such a way as to allow an *apples-to-apples* assessment of the relative harmfulness of different fishing methods as used in different areas of the oceans.

7.7.1.2.1.5 Per set methodology

7.196. We turn now to analyse the parties' arguments regarding the per set methodology. The United States claims that a per set methodology is a scientifically accepted metric widely used by regional fisheries management organizations (RMFOs), national regulators, and scientists around the world for assessing risk levels in various fisheries. For the United States, one of the most widely accepted and commonly used methods of estimating overall risk based on observer data is by "multiplying catch rates determined from observer data by estimates of total fishing effort"[336], and that a *set* is one of the most widely used and accepted units of fishing effort in this regard. Consequently, the United States submits that using a per set bycatch rate metric is a well-established way to measure and compare risks to bycatch species in different fisheries based on data from those fisheries.[337]

7.197. The United States contends that with respect to the analysis of direct, observable dolphin mortalities and injuries caused by tuna fishing, sets or gear deployments are comparable across fisheries for purposes of assessing the relative risk to dolphins posed by different fishing methods. In this connection, the United States clarifies its understanding of the terms "gear deployment" and "set", which it uses interchangeably. The United States contends that these terms refer to a unit of fishing effort consisting of a single operation of the fishing gear used in the particular fishery. The precise definition of a "set", or what a set consists of, varies according to the fishing method used.[338]

7.198. The United States argues that sets or gear deployments are comparable between fishing methods because gear deployment represents the same thing, this is, a unit of effort, across different methods. The United States thus contends that a per set or gear deployment methodology shows how often, relative to fishing effort, a dolphin is directly killed or injured in a particular fishery and how likely any particular fishing operation in that fishery is, on average, to directly kill or injure a dolphin.[339]

7.199. The United States further contends that in the context of the Tuna Measure, sets or gear deployments are also comparable across fisheries, because the Measure is generally applied on a per gear deployment basis, and thus, for purposes of determining what portion of the tuna produced by a fishery is non-dolphin safe, how often captains have to make non-dolphin safe certifications, or how frequently non-dolphin safe tuna must be segregated from dolphin-safe tuna, sets or gear deployments are comparable between different fishing methods.[340]

7.200. Mexico argues that to apply the United States' per set comparison based on the inadequate data available would be unscientific and arbitrary. Mexico contends that if data is collected from within the same fishery in a consistent manner on a year-by-year basis, per set or per gear deployment data can be used to evaluate whether fishery conditions (such as population abundance or level of interactions) or the performance of vessels has changed over time. However, Mexico argues that there is no precedent for using per set or per gear deployment methodology to compare the dolphin mortality rates of different fisheries, using different equipment and/or methods in different ocean regions. Mexico submits that comprehensive data is not collected for any fishery except the large purse seine fishery in the ETP, and that purse seine sets are different in nature and length than longline, gillnet and trawl deployments. Mexico notes

[336] United States' response to Panels' question No. 100 (referring to Tim Lawson, Secretariat of the Pacific Community, Methods for Analysing Bycatches with Observer Data (August 2001), (Exhibit USA-227)).

[337] United States' response to Panels' question No. 100 (referring to Tim Lawson, Secretariat of the Pacific Community, Methods for Analysing Bycatches with Observer Data (August 2001), (Exhibit USA-227)).

[338] For purse seine fisheries, the United States argues a set consists of the deploying and pursing of the purse seine net, pulling it aboard the seiner, and harvesting the catch. For longline fisheries, a set consists of the baiting, setting, and hauling in of longlines and the landing of the catch. For pole and line and handline fisheries, it consists of the locating of the tuna, the chumming of the bait or baiting hooks, and the ensuing fishing on the tuna school from the vessel. For trawl and gillnet fisheries, it consists of the setting, fishing or soaking, and hauling in of the net. United States' response to Panel's question No. 93.

[339] United States' response to Panels' question No. 93.

[340] United States' response to Panels' question No. 93.

that the United States itself has declined to use a per set methodology in evaluating the Indian Ocean gillnet fisheries.[341]

7.201. Mexico also argues that there are problems beyond the lack of quality data outside the ETP. For Mexico, the United States' approach lacks any scientifically-based measuring stick. Mexico also argues that the quantitative approach proposed by the United States seems inconsistent with its claim that the Measure is not intended to protect dolphin populations, but rather discourage harms to dolphins on an individual basis, because gillnets, longlines, purse seine nets and trawls have all been shown to harm dolphins.[342]

7.202. Regarding the comparability of sets or gear deployments across fishing methods, Mexico argues that they are not comparable. For Mexico, the differences between different fishing gear and techniques in different fishing methods are significant. Mexico submits that, for example, a longline fishing set can take as long as 10-12 hours or more, and the lengths of the lines and the number of hooks can vary greatly. Mexico also contends that other fishing methods, such as pole-and-line fishing, have a shorter duration. A gillnet deployment can last anywhere between a few hours and several days, again with varying sizes of nets. There is also variability in purse seine sets.[343]

7.203. Mexico also contends that a comparison of the relative overall risks of harm to individual dolphins posed by different fishing methods on a per set basis is further complicated by the fact that dolphins exist in all tuna fisheries, and that there is a recognized absence of reliable data on interactions with dolphins.[344]

7.204. We begin by setting out our understanding of what using a per set methodology would imply in the context of our assessment of the overall levels of relative risks posed to dolphins. As suggested by the United States, a per set or per gear deployment comparison entails averaging some of the relevant indicators identified in paragraph 7.169 above, including observed mortalities, serious injuries, and interactions, by the number of operations of the fishing gear used in a particular fishery in a given time period. For instance, in the case of the large purse seine fishery in the ETP, we understand that using this methodology would entail dividing the total number of observed mortalities or serious injury by the number of sets, with the latter consisting of each operation of deploying and pursing of the purse seine net, pulling it aboard the seiner, and harvesting the catch. The resulting number would then be compared to the number obtained by using the same methodology for a different fishery, e.g. gillnet fishery in the Indian Ocean. Thus, the use of this methodology would control for the intensity of a given fishing operation in a given area of the ocean so that the number of observed mortalities or serious injuries to dolphins would be a proportion of the number of times a fishing activity may put dolphins in harm occurs.

7.205. It is important to note that, in our view, the numbers resulting from the use of a per set methodology could only be an input to establish the risk profile of a particular fishery, as they do not describe all the relevant aspects of the risks posed to dolphins by a particular fishing method in that fishery. This is so for several reasons, including the fact that the number of mortalities or serious injuries per set is a description of observed, *past* events, and does not necessarily describe the likelihood of that same event happening in the future. Thus, although the occurrence of past dolphin mortalities or serious injuries might be a good predictor of those same events happening at some point in the future, other variables might have to be taken into account to complete this assessment. Additionally, and as a consequence of the very nature of this methodology, which relies on quantitative information, we are mindful that the per set methodology would only be suitable to describe and compare observable harms, which can be quantified, but not necessarily adequate for the assessment of unobservable harms. Therefore, in our view, this methodology would only be able to assist us in describing a part of the risk profile of a fishery, observable harm, but not necessarily the risks of unobservable harm.

7.206. Moving now to the scientific basis of using a per set methodology, we observe that there are a number of studies on the record on this matter. Of particular importance is a study by the Food and Agriculture Organization of the United Nations (FAO) on bycatch and non-tuna catch in

[341] Mexico's responses to Panels' question No. 100.
[342] Mexico's responses to Panels' question No. 116.
[343] Mexico's responses to Panels' question No. 93.
[344] Mexico's responses to Panels' question No. 93.

the tropical tuna purse seine fisheries of the world from 2013[345], which mentions that in order to estimate the total bycatch of a fleet in a period, there are four main options: (i) estimate a ratio expressing the bycatch per unit of effort (BPUE) (set), or per tonnes of tuna captured or retained, and extrapolate it to the total amount of effort by the fleet in sets, or the total tonnage captured or retained; (ii) develop a model from observer data to predict the bycatch in unobserved sets; (iii) estimate total mortality of a population, and subtract an estimate of natural mortality where available, with the traditional fisheries methods; and (iv) use tagging methods.[346] The study also mentions that due to costs and logistic difficulties, the most used methods are either the estimation of a ratio expressing the bycatch per unit of effort and the development of a model from observer data to predict the bycatch in unobserved sets, with extrapolation based on observer data being the most common method in use in the tuna fisheries.[347] In our view, this study lends support to the United States' contention that the per set methodology is commonly used in scientific assessment. Although it might not be the sole methodology to describe risks posed to dolphins by tuna fishing, we believe that it would be appropriate for us to use the per set methodology, particularly because it is one of the most commonly used methodologies.

7.207. We also note that the evidence on the record shows that several RMFOs use a per set methodology when reporting bycatch rates of certain marine mammals, including dolphins. In this regard, a report of the International Dolphin Conservation Program under the purview of the Agreement on the International Dolphin Conservation Program and the Inter-American Tropical Tuna Commission (IATTC) from 2013 reports dolphin mortalities using a per set approach.[348] In this context, we also note that the per set methodology has been used to assess the bycatch of other animals, such as the silky shark.[349]

7.208. The Western and Central Pacific Fisheries Commission (WCPFC) also seems to follow this approach. As evidenced in several of its reports, the per set methodology is used routinely. For instance, in Exhibit USA-17, which contains summary information on whale shark and cetacean interactions in the tropical WCPFC purse seine fishery, prepared by the Secretariat of the Pacific Community-Oceanic Fisheries Programme, from November 2011, reports dolphin, baleen whale and whale sharks mortalities using a per set methodology.[350] This methodology is also used in Exhibit USA-228, containing a report of Integrated Shark Conservation and Management Measure for the Western and Central Pacific Ocean.[351]

7.209. A study on marine turtle bycatch prepared for the Indian Ocean Tuna Commission (IOTC) also reports some of its figures using a per set methodology. In particular, we note that the report mentions that "[t]he by-catches of marine turtles per unit of observation effort (i.e. observed sets) from 1995 to 2011 are shown in figure 11ab (see annexes 13a-d and 14a-d for the same maps per quarter). The mean number of by-caught turtles per observed set, where a capture occurred, is 1.14 (SD=0.46) in the AO and 1.11 (SD=0.31) in the IO, meaning that most of the time, captures per set rarely account to more than a single individual".[352] It also mentions that "[t]o obtain the number of observed turtles per observed set or per object observation per year, we divided the

[345] Martin Hall and Marlon Roman, Bycatch and Non-Tuna Catch in the Tropical Tuna Purse Seine Fisheries of the World (2013), (Exhibit USA-200).

[346] Martin Hall and Marlon Roman, Bycatch and Non-Tuna Catch in the Tropical Tuna Purse Seine Fisheries of the World (2013), (Exhibit USA-200), p. 63.

[347] Martin Hall and Marlon Roman, Bycatch and Non-Tuna Catch in the Tropical Tuna Purse Seine Fisheries of the World (2013), (Exhibit USA-200), p. 63.

[348] AIDCP, Report on the International Dolphin Conservation Program, Document MOP-28-05 (October 18, 2013) (Exhibit MEX-08). "The average mortality per set was 0.094 dolphins in 2012 and 0.10 dolphins in 2011. The trends in the numbers of sets on dolphin-associated fish, mortality per set, and total mortality in recent years are shown in Figure 3". Seep. 3. See also Table 13, which contains the annual estimates of dolphin mortality, by species and stock, 1979-2012, where the estimates for 1979-1992 are based on a mortality-per-set ratio. See p. 15. See also the report from the 32nd Meeting of the Parties, Document MOP-32-05, (Exhibit USA-15).

[349] IATTC, Tuna, Billfishes and Other Pelagic Species in the Eastern Pacific Ocean in 2014, Doc. IATTC-89-04a, IATTC 89th Meeting (June 29-July 3, 2015), (Exhibits USA-14) and IATTC, Fishery Status Report No. 14 (2016) (2016), (Exhibit MEX-06).

[350] Summary Information on Whale Shark and Cetacean Interactions in the Tropical WCPFC Purse Seine Fishery, Paper prepared by SPC-OFP, 8th Regular Session, Koror, Palau (November 2011), (Exhibit USA-17), tables 2a and 2b.

[351] Shelley Clarke, Towards an Integrated Shark Conservation and Management Measure for the Western and Central Pacific Ocean, WCPFC-SC9-2013/EB-WP-08 (August 2013) (Exhibit USA-228), p. 15.

[352] Sandra Clermont et al., IOTC, EU Purse Seine Fishery Interaction with Marine Turtles in the Atlantic and Indian Oceans: A 15 Years Analysis (September 2012), (Exhibit USA-230), p. 11.

total number of observed turtles by the total observed sets or object observations per year. The annual mean of observed turtles per observed set or object and respective standard deviation were then calculated per Ocean and per fishing mode".[353]

7.210. To us, the mentioned scientific evidence on the record provides ample support for the United States' contention that a per set methodology is a scientifically accepted metric widely used by RMFOs and scientists around the world for assessing risk levels in various fisheries.[354] In this connection, we note that Mexico itself recognizes the viability of using this methodology to evaluate whether fishery conditions have changed over time, given that information is collected from within the same fishery in a consistent manner on a year-by-year basis.[355] We are nonetheless mindful that, according to Mexico, there is no precedent for using per set or per gear deployment metrics to compare the dolphin mortality rates of different fisheries, using different equipment and/or methods in different ocean regions, and that comprehensive data is not collected for any fishery except the large purse seine fishery in the ETP.[356] In other words, Mexico claims that due to possible lack of information for some fisheries and the differences between the fishing methods, the use of a per set methodology would be inadequate.

7.211. Regarding Mexico's contention that there is no precedent for using a per set methodology to compare different fisheries, we note that the mere fact that this might not have happened in the past is not enough to conclude that it would be inappropriate to do so in this particular case. Mexico has summited no evidence showing that the differences between fisheries have an important impact on the comparison of dolphin mortalities or serious injuries on a per set basis, which would render such comparison scientifically unsound or would lead to an unreasonable result. We are mindful that the different fishing methods conducted in different ways do not necessarily use the same type of gear and may differ in duration. These differences might, in our view, have an impact on the risks posed to dolphins. However, imperfect as it may be, the per set methodology uses a standard metric, that is, a unit of effort in each of the fisheries, that may contribute in controlling for the differences across fishing methods. In this connection, we agree with the United States that observable dolphin mortalities and injuries caused by tuna sets are comparable across fisheries for purposes of assessing the relative risk to dolphins posed by different fishing methods in different parts of the ocean and the operation of the Tuna Measure because they refer to the same unit of fishing effort consisting of a single operation of the fishing gear used in the particular fishery. Thus, regardless of the duration, type of gear or other variables that may describe a fishing method, a per set comparison focuses on a common denominator among fishing methods: a unit of effort.

7.212. In any case, we recall that as we mentioned above, the results of using a per set methodology are only one of the inputs in establishing the risk profile of a fishery, as they do not describe all the relevant aspects of the risk posed to dolphins by a particular fishing method in a particular part of the ocean. Consequently, other factors, such as the level of interactions with dolphins, the necessity for a particular method to interact with dolphins, and the existence and extent of unobservable harms, which might affect the comparability across fishing methods, can still be adequately taken into account when constructing a risk profile.

7.213. Finally, contrary to our findings regarding the PBR methodology, we consider that the per set methodology sits comfortably with the design and structure of the 2016 Tuna Measure, as the latter is generally applied on a per gear deployment basis in respect of how often captains have to make non-dolphin safe certifications, or how frequently non-dolphin safe tuna must be segregated from dolphin-safe tuna.

7.214. We therefore conclude that using the per set methodology is appropriate for our assessment of the overall levels of relative risks attributable to different fisheries. However, where there is no information provided on a per set basis for a particular fishing method in a particular area of the ocean, we will naturally base our determination on the available data.

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[353] Sandra Clermont et al., IOTC, EU Purse Seine Fishery Interaction with Marine Turtles in the Atlantic and Indian Oceans: A 15 Years Analysis (September 2012), (Exhibit USA-230), p. 6.

[354] United States' response to Panel's question No. 100 (referring to Tim Lawson, Secretariat of the Pacific Community, Methods for Analysing Bycatches with Observer Data (August 2001), (Exhibit USA-227)).

[355] Mexico's responses to Panels' question No. 100.

[356] Mexico's responses to Panels' question No. 100.

7.7.1.2.1.6 Per set data contained in Exhibit USA-179 Rev.

7.215. Having concluded that it is appropriate for us to use per set data in our assessment of the overall levels of relative risks posed to dolphins by different fishing methods in different areas of the ocean, it is apposite to make a number of observations about the per set data presented by the parties in the current proceedings.

7.216. During the course of the Panels' meeting with the parties[357], the United States submitted Exhibit USA-179, which contains a compilation of the data presented, on a per set basis, in various other exhibits submitted in the current proceedings. We asked Mexico to comment on the completeness and accuracy of the information contained in Exhibit USA-179. In response, Mexico states that the data from outside the ETP is incomplete and based on unverified captains' logs and information from observer programs that the United States itself does not consider reliable. In Mexcio's view, the United States compounds these problems by making unsupported assumptions and calculation errors. Mexico also argues that Exhibit USA-179 does not provide information that can reasonably be relied upon to compare the relative risks posed by different fishing methods in different fisheries, especially because the United States is purporting to apply a per set metric that requires comprehensive and precise data.[358] In response to this comment, the United States updated Exhibit USA-179 in Exhibit USA-179 Rev., and argues that this Exhibit sets out the best available scientific evidence as to the levels of dolphin mortalities occurring in the major tuna fisheries around the world. The United States further argues that Mexico has not refuted this conclusion in general or with respect to any particular fisheries.[359]

7.217. As noted above, Exhibit USA-179 contains a compilation of the data of the main exhibits on the record regarding harms caused to dolphins by different fishing methods in different areas of the ocean. Exhibit USA-179 Rev., in turn, revises some of the numbers presented in Exhibit USA-179, but essentially follows the same structure and contains the same information, but for some modifications, as is contained in the former Exhibit. For the purposes of our analysis in this section, we will focus on Exhibit USA-179 Rev.

7.218. We note that Exhibit USA-179 Rev. consists of three tables concerning (i) the association and interactions of dolphins and tuna in various fisheries, (ii) the observed mortality, per set, of dolphins in various fisheries, and (iii) the marine mammal interactions in US Longline Fisheries.[360]

7.219. In what follows, we address the points raised by Mexico regarding Exhibit USA-179 Rev.[361] In general, they can be categorized in two groups, one relating to the accuracy of numerical

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[357] See United States' response to Panels' question No. 3.

[358] Mexico's response to Panels' question No. 57, paras. 1-3.

[359] United States' comments on Mexico's response to Panels' question No. 57.

[360] Exhibit USA-179 Rev., titled "Tables Summarizing the Fishery-by-Fishery Evidence on the Record" consists of 3 tables: Table 1 describes the *association* between tuna and dolphins in purse seine fisheries across different areas of the ocean. It incorporates annual or periodical data according to nine criteria namely, the overall number of observed sets, positive sets (defined as sets with observed dolphin interactions and mortalities) and their rate expressed in the form of percentage together with the overall number of dolphins chased and encircled and dolphin mortalities. The last two criteria reflect a summary of all dolphins' interactions and mortalities according to the per set methodology in the ETP large purse seine and purse seine fisheries without setting on dolphins in the WCPO, the Eastern Tropical Atlantic and the Indian Ocean.

Table 2 contains data on *mortality* of dolphins in various fisheries across different areas of the ocean. It describes the reported dolphin mortalities in the purse seine fishery, longline and trawl on the basis of observer reports in, among others, the ETP, the Pacific, the Atlantic and Indian Ocean, including the scope of coverage by the observers. This table contains data reported on annual or periodical. The table also contains a summary of all dolphins' mortalities reported in different areas of the ocean, using the per set methodology.

Table 3 contains data on marine mammal interactions in US longline fisheries, namely in American Samoa, Hawaii Deep-set longline and Atlantic Pelagic longline, collected on annual basis, mostly between 2004 and 2015. This table includes information on the total number of observed trips, including those with dolphin interactions, and general rate of interactions observed during these trips and expressed in a percentage. The table also incorporates data on the total number of sets, the number of positive sets, the rate of interactions in the sets expressed in percentage rate as well as summary information on the total amount of dolphin interactions per 1,000 sets.

[361] Although Mexico presented these comments with respect to Exhibit USA-179, such comments apply, *mutatis mutandis*, to Exhibit USA-179 Rev.

calculations and the other relating to the reliability of the exhibits supporting such numerical calculations.

Issues regarding the numerical calculations

7.220. Mexico contends that on page 3 of Exhibit USA-179 Rev., the United States has entered the number 31 as the aggregate number of mortalities and serious injuries caused by purse seine vessels of the listed countries in 2010. Based on the individual numbers listed by the United States, Mexico contends that the correct number is 335. Mexico also argues that in the same table for the year 2015, the United States entered a total of 65, when the numbers it listed in fact add up to 119.[362]

7.221. The United States contends that these figures, which concern the levels of dolphin mortality in the WCPO purse seine fishery overall, are not incorrect, because the overall fishery data reflects 15% (for 2007-2009) and 40-60% (for 2010, 2014, and 2015) observer coverage of that purse seine fishery.[363] The WCPFC members' annual reports, on the other hand, reflect 100% coverage of their purse seine vessels (except for Philippine vessels in national waters).[364] The United States thus contends that one would not expect the numbers for dolphin mortalities in the fishery overall for 2014 and 2015 to equal the sum of those in the annual reports[365], as they should be about 40-60% of the sum of those figures because the WCPFC-wide data reflects 40-60% of the trips in the fishery in that year.

7.222. We note that the United States presented overall data from the WCPO fishery for the years 2007-2009, 2010, 2014, and 2015, as well as data from the individual members' annual reports for 2014 and 2015.[366] In reporting the overall numbers for this fishery, including the per set mortalities and the observed sets, we note that the United States used the WCPFC, 7th Annual Report for the Regional Observer Programme, in Exhibit USA-109, which has a different observer coverage than the individual country reports. In fact, we note that for 2015, there were a total of 111 observed dolphin mortalities in the annual reports and a total of 66 in the WCPFC report, based on 63% observer coverage.[367] We observe that for 2014, the result is similar except with respect to the data from the PNG annual report.[368]

7.223. We thus accept the United States' explanation of the difference between the overall and member-specific data, and reject Mexico's argument on this issue.

7.224. Mexico also contends that the WCPFC itself estimated that its purse seine fishery had 1,195 dolphin mortalities in 2009, but that the United States omits this information.[369] The United States argues that that the reason why it did not include the 1,195 dolphin mortality figure is because it was not relevant to the purpose of Exhibit USA-179 Rev., which was to present data on levels of dolphin mortality *per set* and not in absolute terms.[370]

7.225. We find merit in the United States' explanation, as it is consistent with our finding that the use of per set data is appropriate for our assessment of the overall levels of relative risks posed to dolphins by different fishing methods in different areas of the ocean. For this reason, we agree that the number of 1,195 dolphin mortalities in 2009 was not apposite for the purposes of Exhibit USA-179 Rev.[371]

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[362] Mexico's response to Panels' question No. 57.

[363] We note that the United States contends that the reason the 2014 and 2015 reports do not reflect the 100% observer coverage required in the purse seine fishery is that not all data is entered by the time the reports are published. WCPFC, 7th Annual Report for the Regional Observer Programme (September 3, 2015), pp. 4-5.

[364] Exhibit USA-179 Rev., table 2.

[365] Mexico's Response to Panels' question No. 57.

[366] Exhibit USA-179 Rev., table 2.

[367] Exhibit USA-179 Rev.

[368] Exhibit USA-179 Rev., table 2. The United States contends that this table shows that a WCPFC report covered 46% of trips and documented 31 dolphin mortalities, and the 2015 annual countries' reports except for PNG showed 67 dolphin mortalities (plus 13 cetacean interactions on US vessels), meaning that the WCPFC report covered 46.26% of dolphin mortalities (31/67 = 0.4626) outside of the PNG fishery.

[369] Mexico's response to Panels' question No. 57.

[370] United States' comments on Mexico's response to Panels' question No. 57.

[371] We will nonetheless discuss this in further detail below in Section 7.7.2.2

7.226. Mexico additionally argues that Exhibit USA-179 Rev. averages data from national fisheries with more forthright and reliable reports (e.g., Papua New Guinea (PNG)) with those of other countries, in order to avoid providing a (higher) per set number for the more reliable fisheries, and especially PNG.[372]

7.227. The United States argues that Mexico's argument is incorrect because, first, Mexico has no basis, and never cites to any source, for the assertion that the PNG report is more "forthright and reliable" than the other annual reports.[373] The United States argues that these reports are submitted under the same Conservation and Management Measure and generally based on data from the same Parties to the Nauru Agreement observer program for all WCPFC members.[374] Second, the United States contends that it has calculated the per set number for the PNG alone for 2014 and 2015, and the numbers are 23.1[375] and 8.1[376] dolphin mortalities per 1,000 sets, respectively.[377] Thus, the United States contends that both figures are significantly lower than even the lowest ever level of dolphin mortalities caused by dolphin sets in the ETP.[378]

7.228. We note that Exhibit USA-179 Rev. contains both the individual information for PNG purse seine fishery and the overall information for the WCPO purse seine tropical fishery. We will therefore use both of these sets of information in our determination of the relative risk profiles.

[372] Mexico's response to Panels' question No. 57.

[373] United States' comments on Mexico's response to Panels' question No. 57.

[374] United States' comments on Mexico's response to Panels' question No. 57; third written submission, para. 80, fn. 181.

[375] United States' comments on Mexico's response to Panels' question No. 57. The United States argues that in 2014, PNG national vessels and foreign vessels in PNG waters caught 403,316 mt. of tuna (referring to Papua New Guinea, Annual Report to the Commission, WCPFC-SC12/AR/CMM-19 (August 2016), (Exhibit USA-107), pp. 5, 9). According to the United States, this was 19.7% of all tuna caught in the WCPFC purse seine fishery (referring to Peter Williams and Peter Terawasi, WCPFC, Overview of Tuna Fisheries in the Western and Central Pacific Ocean, Including Economic Conditions – 2015 (August 30, 2016), (Exhibit USA-108), p. 2; and United States' response to Panels' Question 31(c)). For the United States, assuming that vessels covered by the PNG observer program conducted a consistent percentage of the 56,000 total sets in the fishery in 2014 (referring to Peter Williams and Peter Terawasi, WCPFC, Overview of Tuna Fisheries in the Western and Central Pacific Ocean, Including Economic Conditions – 2015 (August 30, 2016), (Exhibit USA-108), p. 55), this suggests that such vessels engaged in 11,032 sets. For the United States, this suggests that the per set mortality rate was 23.1 mortalities per 1,000 sets (i.e., 255 / 11,032 * 1,000).

[376] United States' comments on Mexico's response to Panels' question No. 57. The United States argues that in 2015, PNG national vessels and foreign vessels in PNG waters caught 249,072 mt. of tuna (referring to Papua New Guinea, Annual Report to the Commission, WCPFC-SC12/AR/CMM-19 (August 2016), (Exhibit USA-107), pp. 5, 9). For the United States, this was 14% of the 1,766,070 mt of tuna caught in the WCPO purse seine fishery. Peter Williams and Peter Terawasi, WCPFC, Overview of Tuna Fisheries in the Western and Central Pacific Ocean, Including Economic Conditions – 2015 (August 30, 2016), (Exhibit USA-108), p. 5. The United States contends that, assuming a consistent percentage of the approximately 48,000 total sets in the fishery in 2015 (referring to Peter Williams and Peter Terawasi, WCPFC, Overview of Tuna Fisheries in the Western and Central Pacific Ocean, Including Economic Conditions – 2015 (August 30, 2016), (Exhibit USA-108), p.55), this suggests that the covered vessels conducted approximately 6,768 sets. For the United States, this suggests a per set dolphin mortality rate of 8.1 mortalities per 1,000 sets (i.e. 55 / 6768 * 1,000).

[377] The United States argues that the figures in this sentence are based on the natural meaning of the PNG report as encompassing observer reports covering "the vessels based out of PNG and foreign vessels fishing the PNG waters" (United States' response to Panels' Question No. 31(c); Papua New Guinea, Annual Report to the Commission, WCPFC-SC11-AR/CCM-19 (August 2015), (Exhibit MEX-23), p. 2). According to the United States, under the other possible interpretation – that only the PNG "national fleet" is covered - the United States contends that the analogous figures would be 43.4 dolphin mortalities per 1,000 sets for 2014 and 9.9 dolphin mortalities per 1,000 sets for 2015. For 2015, the United States argues that the PNG national vessels caught 204,517 mt. of tuna in 2015. Papua New Guinea, Annual Report to the Commission, WCPFC-SC12/AR/CMM-19 (August 2016), (Exhibit USA-107), pp. 4-5, 9, which was 11.6% of the 1,766,070 mt of tuna caught in the WCPO purse seine fishery in 2015. Peter Williams and Peter Terawasi, WCPFC, Overview of Tuna Fisheries in the Western and Central Pacific Ocean, Including Economic Conditions – 2015 (August 30, 2016), (Exhibit USA-108), p. 2. The United States thus contends that, assuming a consistent percentage of the 48,000 sets that occurred in the fishery in 2015, this suggests that PNG national fleet vessels engaged in 5,568 sets in 2015, with a per set dolphin mortality rate of 9.9 dolphin mortalities per 1,000 sets (i.e. 55 / 5,568 sets * 1,000).

[378] United States' comments on Mexico's response to Panels' question No. 57.

Issues regarding the reliability of the exhibits supporting the numerical calculations

7.229. Mexico argues that the observer data available from the WCPFC is much more limited than the United States seeks to suggest because the WCPFC itself has reported that for purse seine vessels, "the coverage of 2014 observer data submitted to SPC is very low for Japan, China, Spain and Chinese Taipei".[379] For Mexico, the WCPFC's data indicates, for example, that observer data for 107 out of the estimated 359 purse seine trips made by Chinese Taipei's purse seine fleet in 2014 were still missing as of September 2015.[380] With respect to longline vessels, Korea and Chinese Taipei had provided no observer data at all for 2013 and 2014.[381]

7.230. We agree with the United States that the observer coverage is transparently reported by the United States, as evidenced in the tables and citations included in Exhibit USA-179 Rev. The WCPFC annual report for 2010 states how many sets are covered by the report, and a subsequent WCPFC report identifies the total number of sets in 2010.[382] Similarly, the 2014 and 2015 reports are explicit as to the number of trips covered by the reports, and the 2015 annual report identifies the total number of trips in both years.[383] We also note that, while Exhibit MEX-116 refers to the level of observer reports submitted to the Secretariat of the Pacific Community as "very low" for certain countries[384], Table 2 of the exhibit shows that, in fact, the countries in question had submitted observer data for between 69% and 78% of all trips by their flagged vessels in 2014.[385]

7.231. In addition, we agree with the United States' contention that there is no minimum threshold of observer coverage below which the resulting observations are necessarily unreliable.[386] We note that different levels of observer coverage may be required for different purposes, but that did not preclude the authors of the reports on the record from drawing conclusions about whether bycatch is a problem, and about the levels of bycatch, based on the observer coverage underlying the reports.[387] For these reasons, we reject Mexico's arguments on this point.

7.232. Mexico also contends that, according to the United States, the United States' data from the Philippines are representative of all of the Philippines purse seine fishing.[388] However, for Mexico, the Philippines report addresses fishing efforts only in "High Seas Pocket 1", which is a limited area that happens to be subject to strict conservation measures of the WCPFC.[389] Mexico also argues that the United States omits other relevant evidence, such as reports that a particular fleet of five purse seine vessels in the Philippines using FADs killed 2,000 dolphins per year, and a 2012 report that in the Philippines, FAD vessels fish at night with lights that attract dolphins and lead to their deaths.[390]

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[379] WCPFC, Status of ROP Data Management, WCPFC-TCC11-2015-IP05_rev1 (10 September 2015), (Exhibit MEX-116), p. 7.

[380] WCPFC, Status of ROP Data Management, WCPFC-TCC11-2015-IP05_rev1 (10 September 2015), (Exhibit MEX-116), p. 13, Table 2.

[381] WCPFC, Status of ROP Data Management, WCPFC-TCC11-2015-IP05_rev1 (10 September 2015), (Exhibit MEX-116), p.8.

[382] Exhibit USA-179 Rev., table 2. WCPFC Cetacean Interactions Paper, Tables 2a, 2b (Exhibit USA-58); Peter Williams and Peter Terawasi, WCPFC, Overview of Tuna Fisheries in the Western and Central Pacific Ocean, Including Economic Conditions – 2015 (August 30, 2016), (Exhibit USA-108), p. 55.

[383] Exhibit USA-179 Rev., table 2. WCPFC, 7th Annual Report for the Regional Observer Programme (September 2015), (Exhibit USA-109), pp. 4-5; WCPFC, 8th Annual Report for the Regional Observer Programme, (September 2016), (Exhibit USA-110), pp. 2, 5-6.

[384] Mexico's Response to Panels' question No. 57.

[385] WCPFC, Status of ROP Data Management (September 10, 2015), (Exhibit MEX-116), pp. 13-14. The United States argues that these figures may underestimate the percentage of trips covered by the observer data, as fishing may not have occurred in all of the estimated trips. The United States further argues that based on the WCPFC Annual Report for 2015, published in September 2016, this was the case, as the estimate of trips in the purse seine fishery had been revised down to 1,830. WCPFC, 8th Annual Report for the Regional Observer Programme (September 2016), (Exhibit USA-110), p. 2.

[386] United States' response to Panels' question No. 95.

[387] United States' response to Panels' question No. 95.

[388] United States' third written submission, para. 80.

[389] Philippines, Annual Report to the Commission, WCPFC-SC11/AR/CCM-20 (September 28, 2015), (Exhibit USA-38), p. 2.

[390] Mexico's response to Panels' question No. 57 (referring to Mexico's first written submission, paras. 74-75).

7.233. In the view of the United States, Mexico's argument implies that the Panels should ignore the evidence of the levels of dolphin mortality caused by the Philippine vessels in recent years and instead rely on anecdotal data from the early 1990s.[391]

7.234. We note that one of the pieces of evidence submitted by the United States, Exhibit USA-38, shows that, based on 100% observer coverage, in the 35 Philippine purse seine vessels fishing on the high seas, there were "18 instances that a cetacean was unintentionally encircled by a purse seine net and these were all released alive but subsequently died" in 2014.[392] We observe that on a per set basis, based on the number of fishing days in 2014 and the average number of sets per day, this would be approximately 2.3 dolphin mortalities per 1,000 sets.[393] We are also mindful that Mexico has submitted its own evidence on this matter, namely "Incidental Takes of Small Cetaceans in Fisheries in Palawan, Central Visayas and Northern Mindanao in the Philippines", from 1994, in Exhibit MEX-117 and "Convention on Migratory Species, Report of the Third Southeast Asian Marine Mammal Symposium", from 2015, in Exhibit MEX-22. We see no reason to disregard *a priori* any of these Exhibits in our assessment of the relevant risk profiles.

7.235. We nonetheless note that, regarding Mexico's claims that the activities of Philippine vessels on the high seas in 2014-2015 are not representative of other Philippine vessels, we agree with the United States that the vessels fishing on the high seas are simply a subset of the Philippine commercial purse seine and ringnet fleet.[394] We also note that the Philippines annual reports show that catches on the high seas account for a substantial portion of the Philippines purse seine catch outside PNG waters, namely, 36.6% in 2014 and 39% in 2015.[395] Therefore, it is reasonable to conclude that the activities of the vessels on the high seas are representative of the Philippine purse seine fleet. For these reasons, we reject Mexico's arguments.

7.236. Mexico also contends that even putting aside the issue of the reliability of observers outside the ETP, the United States lists observer coverage rates such as 3 to 6% (e.g., Australia longline, Chinese Taipei longline fisheries); 3% (e.g., Japanese longline fisheries), 7.8% of "vessel activities" (Indian Ocean purse seine fisheries), and that coverage rates at those levels do not produce reliable data.[396]

7.237. In this regard, we agree with the United States that Mexico's argument on this point does not seem to be a balanced reflection of the body of evidence on the record. We note that the majority of the evidence on the record summarized in Exhibit USA-179 Rev. is based on observer coverage of more than 10% of the fishing effort in the fishery at issue, including the reports from WCPFC purse seine fisheries, WCPFC longline fisheries, Atlantic longline fisheries, Indian Ocean longline fisheries, and others.[397] We also observe that other RFMOs, national regulators, and scientists that conducted these studies drew conclusions from them about overall levels of bycatch even with low observer coverage. This indicates to us that they considered it appropriate statistically sound to do so.[398] Where experts in the field of fisheries management consider that

[391] L. Dolar, Incidental Takes of Small Cetaceans in Fisheries in Palawan, Central Visayas and Northern Mindanao in the Philippines, in Report of International Whaling Commission (Special Issue 15) (1994), (Exhibit MEX-117), p. 355 (explaining that information was collected "opportunistically" from "fishermen and other knowledgeable local people"). According to the United States' comments on Mexico's response to Panels' question No. 57, it is also notable that the author clarified that the vessels examined in the paper were not producing for the global tuna product market but "for local markets". See p. 357.

[392] Philippines, Annual Report to the Commission, WCPFC-SC11/AR/CCM-20 (September 28, 2015), (Exhibit USA-38) pp. 1, 9. The United States argues that the area of the high seas where Philippine purse seine vessels fish is known as High Seas Pocket 1 (HSP1) and that Philippine vessels do not fish in the other high seas areas of the WCPFC convention area. WCPFC, Conservation and Management Measure 2011-01 for Temporary Extension of CMM 2008-01, (Exhibit USA-238), pp. 1, 3.

[393] See fn. 21 in United States' comments on Mexico's response to Panels' question No. 57. See also Value of Philippine Tuna Exports Drops in 2014, The Freeman (12 August 2015), (Exhibit USA-236); Philippines, Annual Report to the Commission, WCPFC-SC11/AR/CCM-20 (September 28, 2015), (Exhibit USA-38), p. 5.

[394] High Seas Pocket Fishing Rules Released, Bus. World (March 4, 2014), (Exhibit USA-237); Philippines, 2014 Annual Report, (Exhibit USA-38), p. 7.

[395] Philippines, Annual Report to the Commission, WCPFC SC12-AR/CCM-20 (June 2016), (Exhibit USA-38), p.5; Philippines, 2015 Annual Report, (Exhibit USA-105), p. 5.

[396] Mexico's second written submission, para. 79; Mexico's first written submission, paras. 82-85.

[397] Exhibit USA-179 Rev., table 2.

[398] See William A. Karp, Lisa L. Desfosse, and Samantha G. Brooke (eds.), NMFS, US National Bycatch Report (2011), (Exhibit USA-61), pp 391, Table 4.6.C.1 and 394, Table 4.6.D.1; US National Bycatch Report First Edition Update, (Exhibit USA-62), Table 8.3; US National Bycatch Report First Edition Update, (Exhibit

certain evidence is reliable and provides a sufficient basis from which to draw conclusions, we consider this to be a strong indicator that the evidence is in fact reliable and provides a sufficient basis from which we can also draw conclusions.

7.238. Furthermore, we are not of the view that 10% observer coverage is some minimum threshold below which the relevant evidence would lose its probative value. As underlined by the Appellate Body in the first compliance proceedings[399], collection and assessment of data regarding harms caused by the use of different fishing methods in different areas of the ocean is generally very difficult. In our view, the sampling coverage used in a particular study does not necessarily need to meet a pre-established threshold for it to be taken into account by a WTO panel, other than what is considered to be the standard statistical practice in the field the study touches upon. With respect to the Exhibits at issue here, we consider that the fact that many of these are scientific studies published in a peer review journal suggests that their results may be deemed to provide an adequate assessment of the risks to dolphins.

7.239. We thus reject Mexico's contention on this issue of observer coverage rates.

7.240. Finally, Mexico contends that the United States uses the word "interaction" in an inconsistent fashion, as it shows figures for estimates of all dolphins involved in any way in dolphin sets in the ETP, but does not include, for example, the many thousands of dolphins that feed off of longline hooks (i.e., depredation), or dolphins that are in the vicinity of purse seine net settings outside the ETP. For Mexico, the United States simply asserts that there are zero or minimal "interactions" for other types of fishing methods, as though that were a proven fact.[400]

7.241. We note that the United States has clarified, in response to questioning from the Panels, that, for purposes of table 1 of Exhibit USA-179 Rev., "interaction" includes any set where there was an observed interaction between the fishing vessel and its gear and one or more dolphins.[401] We also note the United States' explanation that where it listed "0" under "interaction" in any of the tables, it is because the RFMO or scientific, peer-reviewed report referred to in the associated footnote supported that data point. Moreover, the Panels do not accept assertions, but rather make their assessment based on the evidence before them, as is required by Article 11 of the DSU.

7.242. We thus reject Mexico's arguments in this respect.

7.7.1.2.1.7 Overall conclusion

7.243. Having addressed all of Mexico's criticisms regarding the information contained in Exhibit USA-179 Rev., we conclude that, as a general matter, we can rely on the information therein in our assessment of the overall levels of relative risks posed to dolphins by different fishing methods in different areas of the ocean. We will of course assess the relevance of particular pieces of information contained in that Exhibit in the light of the fishing methods and the areas of the ocean that we will analyse in the following parts of our Reports.

7.7.1.2.2 Differences between different kinds of harms posed to dolphins

7.244. We are mindful that over the course of this dispute, several categories of harms posed to dolphins have been discussed and assessed by the panels and the Appellate Body, but they have not always been clearly distinguished. Before we begin our factual analysis, it is useful to explain these different categories, as they will structure our assessment of the evidence on the record and facilitate our comparison of the risks to dolphins arising from the use of different fishing methods in different areas of the ocean. It is in our view particularly important to draw a proper distinction

USA-63), Table 8.4; Summary Information on Whale Shark and Cetacean Interactions in the Tropical WCPFC Purse Seine Fishery, Paper prepared by SPC-OFP, 8th Regular Session, Koror, Palau (November 2011), (Exhibit USA-17), pp.5-6; NOAA Fisheries, 2015 Stock Assessment and Fishery Evaluation (SAFE) Report for Atlantic Highly Migratory Species (2015), (Exhibit USA-39), pp. 43, 50-51, Tables 4.3, 4.9; Hsiang-Wen Huang and Kwang-Ming Liu, Bycatch and Discards by Taiwanese Large-Scale Tuna Longline Fleets in the Indian Ocean, 106 Fish. Res. 261, (2010), (Exhibit USA-189), pp. 263-265.

[399] See Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.252.

[400] Mexico's response to Panels' question No. 57.

[401] United States' Response to Panels' Question 2.

between the concepts of *observed, unobserved, observable, unobservable, direct* and *indirect* harms.

7.245. We begin by noting that the first compliance panel began this process of clarification by drawing a distinction between the type of unobservable harms caused by setting on dolphins, on the one hand, and the kinds of harm caused by other fishing methods, which would, at least in theory, be observable (although they may not, in fact, be observed, for a variety of reasons). According to the first compliance panel, certain harms caused by setting on dolphins are unobservable in the sense that no evidence of their occurrence is produced during the set. They may be inflicted even in cases where no dolphin is caught in the net, or where a caught dolphin is released without apparent injury. Accordingly, they are harms whose occurrence cannot be recorded.[402] The first compliance panel found that this differentiates them from harms caused by other fishing methods, which at least in theory are observable to the human eye (even if they are not, in fact, observed).

7.246. The first compliance panel also introduced the notion of "direct" and "indirect" harms, clarifying that "indirect and unobservable harms may follow consequentially from observable harms caused by tuna fishing methods other than setting on dolphins".[403] The panel explained that where, for example, a mother dolphin is killed or seriously injured in a gear set, her calf may also suffer as a result of her (the mother's) inability to provide care, including food and protection, but that the key point was that these harms flow from mortalities or injuries that are themselves *observable*, and whose occurrence would render non-dolphin-safe all tuna caught in the set or gear deployment in which the injury or mortality was inflicted. These indirect harms may be serious. However, because they flow from *observable* harms, such as serious injury, all of which could in theory be detected and reported, unlike the kinds of unobservable harms caused by setting on dolphins which are not visible to the human eye, these types of indirect harms are different from the kind of unobservable harms caused by setting on dolphins.[404]

7.247. In an effort to clarify our understanding of the different categories of harms caused by tuna fishing, we asked the parties for their views on the difference between *observed, unobserved, observable, unobservable, direct* and *indirect* harms. In response, the United States argues that both the original panel and the first compliance panel identified two distinct categories of harms to dolphins, i.e. those stemming from direct, harmful interactions with fishing gear, and those caused by the "chase itself" in dolphin sets.[405] With respect to the first category, "observable" harms, the United States contends that the first compliance panel explained that they "flow from mortalities or injuries that are themselves observable, and whose occurrence renders non-dolphin-safe all tuna caught in the set or gear deployment in which the injury or mortality was sustained"[406], and that the second category, "unobservable" harms, by contrast, occur "as a result of the chase itself" in dolphin sets and would thus "continue to exist even if measures are taken in order to avoid the taking and killing of dolphins in the nets".[407]

7.248. The United States also contends that "unobserved" harms encompass "unobservable" harms as well as potential instances or consequences of "observable" harms that are not, in fact, observed.[408] The United States argues that an example of such an "unobserved" harm would be a dolphin caught in a purse seine net that was released dead but was unseen by an observer or captain.[409] In this regard, the United States contends that the frequency of dolphin interactions and number of dolphins generally involved would be the best quantitative proxy for unobserved

[402] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico),* para. 7.134.
[403] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico),* para. 7.134.
[404] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico),* para. 7.134.
[405] United States' response to Panels' question No. 116 (referring to *Panel Report, US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.120-135).
[406] United States' response to Panels' question No. 116 (referring to Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.134).
[407] United States' response to Panels' question No. 116 (referring to Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.122).
[408] United States' response to Panels' question No. 116 (referring to Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.134).
[409] United States' response to Panels' questions No. 105 and 116.

but observable harms, as these figures give a picture of how frequently dolphins are endangered by the fishing method.[410]

7.249. Regarding "direct" and "indirect" harms, the United States contends that they refer, on the one hand, to harms inflicted on a dolphin directly and, on the other, to harms that are derivative of a direct harm. The United States argues that the primary example of the latter is calves who are orphaned when their mother is killed in a fishing set[411], but clarifies that this is a different type of harm than the cow-calf separation that can occur in dolphin sets due to the chase itself, regardless of whether a dolphin is directly killed or seriously injured.[412]

7.250. During the course of the Panels' meeting with the parties, Mexico argued that the concepts of "unobservable" and "observable" and "direct" and "indirect" were developed in the first compliance proceedings to address the fact that, outside the ETP, there is no program requiring 100% coverage by observers trained to watch for and report on interactions with dolphins, and that direct and indirect are synomys for observable and unobservable harms.We note that Mexico also stated that it would submit more detailed information in its written reply, but did not do so, in particular, as to the differences between these various terms.[413]

7.251. In light of the previous panel and Appellate Body reports in this dispute, and taking into account the parties' responses to our question, we understand that tuna fishing may cause the following categories of harm to dolphins:

a. *observable* harm. This is any type of harm that can be detected and reported, such as serious injury sustained during the conduct of a set. We note that not all observable harms are in fact observed.

b. *unobservable* harm. This is the type of harm in respect of which no evidence of their occurrence is produced during the set.

c. *observed* harm. This is harm that is observable and that has, as matter of fact, been detected and reported during the conduct of a set.

d. *unobserved* harm. This is the type of harm that is observable but that has not, as matter of fact, been detected or reported during the conduct of a set, even if it was in principle capable of being detected and reported.

e. *direct harm.* This is the type of harm caused by direct interaction with fishing gear.

f. *indirect harm*. This is harm consequent upon harm sustained as a result of direct interaction with a fishing gear.

7.7.1.2.3 Difficulties in assessing the data on the record

7.252. To conclude this introductory section, we find it important to mention some of the other issues that arise in respect of our task of assessing the evidence on the record. Although we will not address them here, but rather when we establish the risk profiles of the different fisheries, we find it useful to identify them in this part of these Reports.

7.253. The first issue concerns the completeness and availability of data. Although the parties agree that there is an abundance of data and studies on the harms caused to dolphins in some areas of the ocean, for instance in the ETP, there are other areas where the amount and quality of data is scant. This will invariably complicate our assessment of the risk profiles of different fisheries. One specific context in which this issue presents itself is the assessment of observable harms that in fact are not observed. With respect to different fishing methods, the record contains

[410] United States response to Panels' question No. 116 (referring to Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.134).
[411] United States' response to Panels' question No. 116 (referring to Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.134).
[412] United States' response to Panels' question No. 116 (referring to Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.134).
[413] Mexico's response to Panels' question No. 116 (referring to Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.134).

no direct evidence regarding the existence and level of such harms. In such instances, we consider that it may be possible to use the frequency of interactions with dolphins as a proxy to measure the maximum potential level of unobserved harms. This is so because the number of dolphins that interact with a vessel represents the maximum number of dolphins that could suffer unobserved harms. In this sense, the magnitude of interactions does not indicate the number of dolphins that actually do suffer unobserved harms, but rather, the upper bound of dolphins that could suffer such harms. The lower the interaction the less likely it is for the relevant fishing method to cause harms to dolphins. In this regard, we also keep in mind that the level of interaction with dolphins depends on the fishing method as well as the area of the ocean where the method is used to catch tuna.

7.254. The second issue is related to the time range of some of the data on the record. The different scientific studies in the record have different time ranges. This may complicate the comparison between the results across studies since the time difference may have a substantial impact on the conclusions about mortalities and injuries to dolphins. We note that in some cases, the parties contest the probative value of evidence on this ground.

7.255. The third issue relates to statistical and data-gathering biases. Several studies discuss the existence of important statistical issues, such as sampling. In this regard, we note that "[p]otential biases to consider in observer programmes include non-representative practices in the presence of the observer (an "observer effect"), and pressures on the observer to affect reports".[414]

7.7.2 Findings on the risk profiles of individual fishing methods

7.7.2.1 Setting on dolphins

7.7.2.1.1 Introduction

7.256. The Panels now turn to review the evidence concerning the risks to dolphins caused by setting on dolphins. It is vital that we have a clear understanding of the risks to dolphins arising from the use of setting on dolphins, because, as we have noted above, under the 2016 Tuna Measure the risks of setting on dolphins provide a kind of benchmark against which the degree of risk caused by other fishing methods in other areas of the ocean is assessed.

7.257. We will commence our analysis by recalling the characteristics of the fishing method of setting on dolphins. Next, we will underline the existing findings made in the previous proceedings in this dispute concerning the risks to dolphins posed by setting on dolphins. We will then summarize the parties' arguments in these proceedings, before moving on to examine the evidence submitted by the parties in support of their positions. In this connection, we recall again the Appellate Body's statement that a compliance panel should not deviate from the reasoning contained in an earlier report on the same matter in the same dispute "in the absence of any change in the underlying evidence in the record".[415] In the light of this statement, we will not conduct a *de novo* review of the evidence concerning the effects of setting on dolphins. Rather, after summarizing the findings made in the previous proceedings in this dispute, we will examine the evidence submitted by the parties in order to determine whether there has been any change in the underlying record that would justify our revising the existing findings.

7.7.2.1.2 Findings made in the previous proceedings

7.258. The fishing method of setting on dolphins has been the subject of extensive discussion and analysis in the previous stages of this dispute. Its characteristics were considered in both the original and the first compliance proceedings. We recall that, because of the unique association between tuna and dolphins in the ETP[416], setting on dolphins is only practiced in a "widespread" and "systematic" manner in the ETP.[417] Moreover, we recall that the *Encyclopedia of Marine Mammals* describes setting on dolphins as follows:

[414] Martin Hall and Marlon Roman, Bycatch and Non-Tuna Catch in the Tropical Tuna Purse Seine Fisheries of the World (2013) (Exhibit USA-200).
[415] Appellate Body Report, *US – Upland Cotton (Article 21.5 – Brazil)*, para. 386.
[416] Appellate Body Report, *US – Tuna II (Mexico)*, para. 287.
[417] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.241-242.

> Purse-seining for tuna in the ETP can be conducted in one of three ways: the net may be set around schools of tuna associated with dolphins ("dolphin sets" which catch large yellow-fin tuna) … Dolphins are killed almost exclusively in dolphin sets. During "porpoise fishing" (the fishermen's term), schools of tuna are located by first spotting the dolphins or the seabird flocks which are also associated with the fish. Speedboats are used to chase down the dolphins and herd them into a tight group; then the net is set around them. The tuna-dolphin bond is so strong that the tuna stay with the dolphins during this process, and tuna and dolphins are captured together in the net. Dolphins are released from the net during the backdown procedure. If all goes well, the dolphins are released alive, but the process requires skill by the captain and crew, proper operation of gear, and conducive wind and sea conditions. As with any complicated procedure at sea, things can go wrong, and when they do, dolphins may be killed.[418]

7.259. We recall that, in the original proceedings, the Appellate Body noted that the original panel accepted that, while all tuna fishing methods may pose risks to dolphins, "setting on dolphins is particularly harmful to dolphins".[419] The Appellate Body then accepted that "the fishing method of setting on dolphins causes observed and unobserved adverse effects on dolphins"[420], and noted that the original panel found that these "unobserved" harms include "cow-calf separation; potential muscle injury resulting from the chase; immune and reproductive systems failures; and other adverse health consequences for dolphins, such as continuous acute stress".[421] The Appellate Body also observed that these unobserved harms would exist "even under the restrictions contained in the AIDCP rules", because they are caused "as a result of the chase itself", which is an essential part of the process of setting on dolphins.[422] Finally, the Appellate Body recognized that "certain environmental conditions in the ETP (such as the intensity of tuna-dolphin association)" are unique".[423]

7.260. In the first compliance proceedings, the panel reviewed the findings of the original panel and the Appellate Body, and also analysed the new evidence submitted by the parties. It found that the fishing method of setting on dolphins "targets" dolphins[424], and interacts "with dolphins in 100% of dolphin sets".[425] It also accepted that "the particular nature of the interaction is itself inherently dangerous to dolphins, even where no dolphin is seen to be killed or seriously injured, because it has unobservable deleterious effects on dolphins' physical and emotional well-being".[426] And it noted that "[w]here dolphins associate with tuna … they are more likely to interact with tuna fishing gear, even if such interaction is accidental or unintentional. This is simply a question of numbers: the more dolphins there are in the vicinity, the more likely that one or more dolphins will be killed or seriously injured".[427]

7.261. Reiterating the original panel's finding that setting on dolphins is "particularly harmful to dolphins"[428], the first compliance panel observed that "the chase itself"[429], which is an essential part of the process of setting on dolphins, may cause:

> [V]arious adverse impacts … beyond observed mortalities, including cow-calf separation during the chasing and encirclement, threatening the subsistence of the calf and adding casualties to the number of observed moralities, as well as muscular damage, immune and reproductive system failures, and other adverse health consequences.[430]

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[418] Tim Gerrodette, The Tuna-Dolphin Issue, in Perrin, Wursig and Thewissen (eds.) Encyclopedia of Marine Mammals (2d ed. 2009), (Exhibit USA-12), p. 1192.
[419] Appellate Body Report, *US – Tuna II (Mexico)*, para. 289.
[420] Appellate Body Report, *US – Tuna II (Mexico)*, para. 288.
[421] Appellate Body Report, *US – Tuna II (Mexico)*, para. 330, fn. 663.
[422] Appellate Body Report, *US – Tuna II (Mexico)*, para. 287 (citing Panel Report, *US – Tuna II (Mexico)*, para. 7.504).
[423] Appellate Body Report, *US – Tuna II (Mexico)*, para. 287.
[424] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.261.
[425] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.244 (internal citations omitted).
[426] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.244 (internal citations omitted).
[427] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.261.
[428] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.120.
[429] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.122.
[430] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.120.

7.262. According to the first compliance panel, these harms "cannot be mitigated by measures to avoid killing and injuring dolphins".[431]

7.263. The first compliance panel also conducted a review of the evidence submitted by the parties concerning the question whether fishing methods other than setting on dolphins cause unobservable harms similar to those caused by setting on dolphins. On the basis of this evidence, the compliance panel found that "no fishing method other than setting on dolphins has effects on dolphins as consistently harmful as those caused by setting on dolphins".[432] It also rejected Mexico's arguments that other fishing methods cause similar unobservable harms.[433]

7.264. The first compliance panel therefore concluded that "setting on dolphins does … cause observed and unobserved harms to dolphins", and that "other tuna fishing methods [do not] consistently cause similar harms".[434] Moreover, it accepted the United States' argument that "*even if* there are tuna fisheries using … gear types that produce the same number of dolphin mortalities and serious injuries allowed or caused in the ETP … it is simply *not* the case that such fisheries are producing the same level of unobserved harms, such as cow-calf separation, muscular damage, immune and reproductive system failures, which arise as a result of the chase in itself".[435]

7.265. We note, moreover, that in a separate opinion, one panelist, after agreeing that setting on dolphins is "particularly harmful to dolphins", went on to find that "[s]etting on dolphins is the only tuna fishing method that deliberately targets dolphins, and so interacts with dolphins in a way that is uniquely intense, both in terms of the number of dolphins affected and the frequency of the interaction".[436]

7.266. On appeal, Mexico challenged three of the compliance panel's factual findings under Article 11 of the DSU. First, Mexico alleged that the compliance panel erred by "convert[ing] the prior finding that 'genuine concerns' exist regarding the extent to which setting on dolphins may have an adverse impact on dolphins beyond observed mortality into a finding of 'conclusive evidence' of significant unobserved effects".[437] The Appellate Body rejected this argument, finding that the panel's references to the original Appellate Body's findings "do not … mischaracterize the findings made in the original proceedings regarding the existence of unobserved effects on dolphins".[438]

7.267. Second, Mexico argued that the compliance panel erred in finding that fishing methods other than setting on dolphins have no unobservable effects.[439] The Appellate Body also rejected this argument, and found that the panel had examined evidence relating to other fishing methods, contrary to Mexico's claim that the panel "did not even mention" this evidence.[440] The Appellate Body also clarified that the compliance panel did not make a finding that "*all* of the adverse effects on dolphins caused by other fishing methods would be observable if a trained person were watching for them".[441] Rather, the panel's finding, which the Appellate Body did not reverse, was that none of the evidence presented by Mexico regarding the adverse effects on dolphins caused by other fishing methods "suggests that fishing methods other than setting on dolphins inflict the same kinds of unobservable harms that are caused by net sets" (i.e. setting on dolphins).[442]

7.268. Third, Mexico asked the Appellate Body to reverse the compliance panel's finding that the Appellate Body in the original proceedings had found that "dolphin sets under the rules of [the]

[431] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 6.8.
[432] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.130 (citing Appellate Body Report, *US – Tuna II (Mexico)*, para. 289 (noting that other fishing methods may give rise to the "same level of risk" only "in some circumstances")).
[433] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.130-7.134.
[434] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.135.
[435] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.135.
[436] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.278.
[437] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.193.
[438] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.196-7.197.
[439] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.198.
[440] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.201.
[441] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.200 (emphasis in original).
[442] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.200.

AIDCP are more harmful to dolphins than other fishing methods".[443] The Appellate Body rejected this claim also. It explained that:

> Mexico has neither established that the Panel made a finding "that the dolphin set method is more harmful to dolphins than other fishing methods when the dolphin set method is regulated under the AIDCP", nor identified any problem with the statements made by the Panel regarding the Appellate Body's use of the phrase "particularly harmful" in connection with the fishing method of setting on dolphins.[444]

7.269. Accordingly, the Appellate Body rejected all of Mexico's claims under Article 11 of the DSU, and did not reverse the factual findings of the first compliance panel, which are therefore relevant to our analysis in these proceedings.

7.7.2.1.3 Panels' assessment in the present proceedings

7.270. Having set out the findings concerning setting on dolphins made by the original and first compliance panels and the Appellate Body in the previous stages of this dispute, we now turn to the arguments made by the parties in the present proceedings regarding setting on dolphins. We note that the parties have submitted long and complex arguments about the risks associated with setting on dolphins. Indeed, the parties' arguments seem to be diametrically opposed about the safety of this fishing method. In this part of our Reports, we will provide a general summary of the parties' arguments. We will provide more detailed descriptions of those arguments below, when we examine the existing findings and the evidence submitted by the parties in these proceedings.

7.271. The United States essentially requests the Panels to reaffirm the findings concerning setting on dolphins made in the original and first compliance proceedings in this dispute. In particular, the United States asks us to find that setting on dolphins poses relatively greater risks to dolphins than do other fishing methods, in terms of both observable and unobservable harms. In this connection, the United States contends that setting on dolphins is the only fishing method in the world that systematically and intentionally targets a type of marine mammal to capture a commercially valuable fish. According to the United States, this intentional targeting of dolphins is, by its very nature, unsafe for dolphins. The United States explains that in a dolphin set, the fishing vessel (and its gear) interacts with dolphins in a way that is uniquely intense, both in terms of the number of dolphins affected and the frequency of interaction. The inherent dangerousness of this intense and sustained interaction between dolphins and fishing vessels means that setting on dolphins is unique in terms of the level of harm it causes to dolphins.[445] Moreover, the United States contends that since dolphins are an essential component of setting on dolphins, every dolphin set, by its nature, poses a risk to, on average, several hundred dolphins.[446]

7.272. With respect to unobservable harms, the United States submits that scientific evidence confirms that setting on dolphins causes a unique category of unobservable harms that occur as a result of the chase and encirclement process, independent of whether a dolphin is killed or injured. According to the United States, these harms include calf-cow separation, muscular damage, immune system failures, reproductive system failures, and other adverse health effects.[447] The United States notes that the extent of these harms is "almost certainly significant", although difficult to quantify precisely. The United States notes that between 2009 and 2013, for example, approximately 6.2 million dolphins were chased and approximately 3.6 million were captured each year in nets.[448] According to the United States, each one of these dolphins was at risk of suffering unobservable harms.[449]

7.273. With respect to observable harms, the United States contends that setting on dolphins causes significant observable harms.[450] The United States notes that, historically, setting on dolphins in the ETP led to the deaths of hundreds of thousands of dolphins each year. In the 1990s, following the adoption of the *Agreement for the Conservation of Dolphins* (La Jolla

[443] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.203.
[444] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.207.
[445] United States' first written submission, para. 36.
[446] United States' second written submission, para. 73.
[447] United States' first written submission, para. 37.
[448] United States' first written submission, para. 50, Table 2.
[449] United States' first written submission, para. 37.
[450] United States' first written submission, para. 38.

Agreement), dolphin mortalities in the fishery dropped from the hundreds of thousands annually to the tens of thousands.[451] The United States submits that, although dolphin mortalities have fallen since the introduction of the AIDCP, setting on dolphins in the ETP nevertheless continues to kill approximately 1000 dolphins per year.[452] According to the United States, on a per set basis, between 2009 and 2014, the average dolphin mortality was 94.92 dolphins per 1000 sets.[453] Over the last decade, the average dolphin mortality has ranged between 69.4 and 126.3 dolphins per 1000 sets.[454]

7.274. With respect to serious injury, the United States argues that although there is only limited data available concerning the extent of serious injuries in the ETP[455] (and other fisheries), it is possible to use the total number of dolphins, cetaceans or other marine mammals caught or hooked in the fishery as a proxy for the maximum possible number of injuries in a given fishery. Applying this methodology, the United States observes that the figure for the ETP large purse seine fishery is well over three million dolphins a year, i.e. all those encircled in purse seine nets.[456] We note that the United States is not arguing that three million dolphins are in fact seriously injured in the ETP large purse seine fishery, but rather that this figure represents the "maximum possible" number of injuries.

7.275. Mexico's view of the impact of setting on dolphins is diametrically opposed to that of the United States. According to Mexico, the United States' descriptions of setting on dolphins rely on "colourful language and exaggerations in order to inaccurately suggest that dolphin encirclement involves cruel and vicious attacks on dolphins".[457] Moreover, in Mexico's view, the United States' arguments improperly conflate the activities that define a fishing method and the level of adverse effects on dolphins caused by those activities.[458] In this connection, Mexico submits that a causal link between encirclement of dolphins and risk of observable and unobservable harms cannot be assumed. Thus, the mere fact that dolphins are intentionally and routinely chased does not, by itself, establish the existence of risks to dolphins.[459]

7.276. With respect to observable harms, Mexico does not dispute the mortality figures submitted by the United States, which are based on data collected and published by the AIDCP.[460] Mexico argues that after the non-binding La Jolla Agreement was adopted in 1993, dolphin mortalities immediately dropped dramatically[461], and in 2015 were 765.[462] Mexico also submits that the direct mortalities are well within the limits of sustainability[463], and are in fact "statistically insignificant".[464] Indeed, in Mexico's view, AIDCP-compliant setting on dolphins is an environmentally-sustainable fishing practice that causes less by-catch than other fishing methods.[465]

7.277. With respect to unobservable harms, Mexico argues that the evidence on which the United States' arguments are based is "speculative, biased, and faulty".[466] According to Mexico, as evidence of indirect harms to dolphins, the United States cites to old reports that claim, or are based on the assumption, that the populations of the two dolphin stocks on which the Measure is based were not recovering at the expected rate. In Mexico's view, this is the "only objective scientific evidence" that supports the United States' arguments about the existence of unobservable harms.[467] However, Mexico argues that that assumption has subsequently been

[451] United States' first written submission, para. 40.
[452] United States' first written submission, para. 41.
[453] United States' first written submission, para. 42.
[454] United States' second written submission, para. 75.
[455] United States' response to Panels' question No.3, para. 10. According to the United States, information on injuries is collected for the ETP large purse seine fishery but not generally released by IATTC reports.
[456] United States' response to Panels' question No. 3, para. 11.
[457] Mexico's second written submission, para. 4.
[458] Mexico's first written submission, para. 229.
[459] Mexico's first written submission, para. 230.
[460] Mexico's response to Panels' question Nos. 58, para. 5, and 63, para. 24.
[461] Mexico's first written submission, para. 37.
[462] Mexico's first written submission, para. 40.
[463] Mexico's second written submission, para. 6.
[464] Mexico's first written submission, para. 37.
[465] Mexico's second written submission, paras. 9-12.
[466] Mexico's first written submission, para. 53.
[467] Mexico's first written submission, para. 61.

found to be inaccurate.[468] Accordingly, in Mexico's view, there is no evidentiary basis for extrapolating the level of unobserved harms from the extent of dolphin interactions. Such an approach, in Mexico's view, is based on "pure speculation".[469] Relying on report submitted by the United States, Mexico suggests that, giving the United States the benefit of the doubt, the extent of unobservable harms could be calculated at, at most, approximately 14 percent of the level of observed mortalities. For example, in 2015, the extent of unobservable harms caused to dolphins can be measured by adding an additional 108 dolphins to the total number of observed mortalities.[470]

7.278. Finally, in the light of the above, Mexico asks the Panels to "carefully reconsider statements made by the first compliance panel that suggest encircling dolphins in an AIDCP-compliant manner is 'particularly harmful'". In Mexico's view, Mexico's fishing method is not 'particularly harmful'. In fact, it is less harmful to dolphins than other tuna fishing methods.[471]

7.279. We begin our assessment by observing that neither party contests the accuracy of the data collected and published by the AIDCP concerning the level of observed mortalities caused by setting on dolphins in the ETP. We note that the data in Exhibit USA-179 Rev., which we reproduce below, is as follows:

YEAR	OBSERVED SETS	OBSERVED MORTALITY	MORTALITY PER 1000 SETS
2009	10,910	1,237	113.38
2010	11,645	1,169	100.38
2011	9,604	976	101.62
2012	9,220	870	94.36
2013	10,736	800	74.49
2014	11,382	975	85.66
2015	11,020	765	69.42
Total	74,517	6,792	91.15

7.280. This data confirms the United States' arguments concerning the per set mortality associated with setting on dolphins in the ETP. Specifically, it shows that the per set mortality associated with setting on dolphins in the ETP over the last seven years has ranged between 69.42 per 1000 sets (in 2015) and 113.38 (2009), for an average of 91.15 dolphin mortalities per 1000 sets between 2009 and 2015. We note that, as we have explained above, the 2016 Tuna Measure is not a sustainability measure, and accordingly the question of whether this per set average is sustainable on a population level is not directly relevant to our inquiry.

7.281. With respect to observable serious injury, we observe that there is limited evidence on the record concerning the extent to which dolphins are seriously injured in the ETP as a result of setting on dolphins. Exhibit USA-16, which contains a dataset prepared by the IATTC covering the years 2009-2013, appears to be the only exhibit containing relevant figures. It indicates the following concerning the number of recorded serious injuries in the covered time-period:[472]

YEAR	OBSERVED SERIOUS INJURY
2009	72
2010	57
2011	36
2012	13
2013	27

7.282. These figures suggest that serious injury is less frequent than mortality. The figures are also small when compared against the total number of dolphins chased and encircled per year. Exhibit USA-179 Rev. indicates that, between 2009 and 2013, on average 3,716,319.4 dolphins[473]

[468] Mexico's first written submission, para. 54.
[469] Mexico's first written submission, para. 62.
[470] Mexico's first written submission, para. 65.
[471] Mexico's first written submission, para. 238.
[472] IATTC, EPO Dataset 2009-2013, (Exhibit USA-16), p.3.
[473] Exhibit USA-179 Rev., p. 1. We arrive at this figure by adding the number of "dolphins encircled" between 2009 and 2013 and dividing the total by 5.

were encircled per year. Even when compared against the highest number of recorded injuries (79 in 2009), it is clear that the vast majority of encircled dolphins do not suffer observed serious injury. These figures suggest that setting on dolphins does not pose a very high risk of observable serious injury.

7.283. No evidence on the record indicates the number of unobserved observable mortalities or serious injuries suffered by dolphins in the ETP as a result of setting on dolphins. However, as we have explained in paragraph 7.253 above, we consider that the extent of dolphin interaction may serve as a proxy for the potential magnitude of unobserved harms. Bearing in mind that on average some six million dolphins are chased[474] and some three and a half million dolphins are encircled each year, we think it is reasonable to assume that some dolphins may be killed or seriously injured, without this being observed. Indeed, we note that in its Final Draft Full Assessment Report on the Northeastern Tropical Pacific Purse Seine Yellowfin and Skipjack Tuna Fishery, the Marine Stewardship Council (MSC) considered that because "recorded data are based on animals that remain on the deck after the completion of a set whereas most bycatch is dumped overboard as soon as it is brought aboard", observers likely underestimate the number of individuals affected.[475] The same report also notes that:

> [B]iases may result (conservatively) in under-reporting observable mortality associated with fishing operations by approximately 9% in half of observed trips. Overall, this would result in ~5% under-reporting, or ... Results for the observer survey also indicated that a number of respondents cited mortalities seen by divers, or entanglement events as possible sources of unreported mortality (9 of 23 respondents).[476]

7.284. Concern that dolphin mortalities and serious injuries caused by setting on dolphins in the ETP may be underreported appears to be shared by a number of other sources. For example, in a letter sent to the MSC in October 2016, the World Wildlife Fund (WWF) states that "[t]here is a real concern that dolphin mortalities are actually unknown or potentially significantly underestimated", and questions whether full knowledge of mortalities and serious injuries can be gleaned even from 100% observer coverage.[477]

7.285. To us, these sources suggest that it is likely that dolphins are killed and seriously injured in the ETP in larger numbers than are observed. They also seem to be consistent with the fact, accepted by the panel in the first compliance proceedings, that the task of observing dolphin mortalities and serious injury in the ETP is complicated by "the intensity and length of the interactions in a dolphin set between the dolphins, on the one hand, and the vessel, speed boats, helicopter, and purse seine net on the other".[478] We further note that, because setting on dolphins necessarily involves interaction with dolphins in 100% of sets[479], the likelihood of unobserved mortality or serious injury is present in every set.

7.286. We now turn to assess the evidence and the parties' arguments concerning unobservable harms. As we explained above, the first compliance panel conducted a detailed review of both the panel's and Appellate Body's findings in the original proceedings and the evidence submitted by the parties on this issue in the first compliance proceedings. The compliance panel accepted that setting on dolphins causes unobservable harms, including "cow-calf separation; potential muscle injury resulting from the chase; immune and reproductive systems failures; and other adverse health consequences for dolphins, such as continuous acute stress"[480], and observed that these harms occur as a result of the "chase itself".[481]

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[474] The average of the figures listed in Exhibit USA-179.Rev., p.1, is 6,260,131.8.

[475] Sian Morgan et al., SCS Global Services, MSC Full-Assessment Report: The Northeastern Tropical Pacific Purse Seine Yellowfin and Skipjack Fishery (2016), (Exhibit USA-205), p. 52.

[476] Sian Morgan et al., SCS Global Services, MSC Full-Assessment Report: The Northeastern Tropical Pacific Purse Seine Yellowfin and Skipjack Fishery (2016), (Exhibit USA-205), p. 90.

[477] Letter from Daniel Suddaby, WWF, to the Independent Adjudicator, MSC, on Notice of Objection for the Northeastern Tropical Pacific Purse Seine Yellowfin and Skipjack Tuna Fishery (October 24, 2016), (Exhibit USA-144), p. 8.

[478] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.239-7.245.

[479] Panel Report, *US – Tuna II (Mexico)(Article 21.5 – Mexico)*, para. 7.244.

[480] Appellate Body Report, *US – Tuna II (Mexico)*, para. 330, fn. 663.

[481] Panel Report, *US – Tuna II (Mexico)*, para. 7.504.

7.287. In these proceedings, Mexico essentially asks us to reconsider the evidence on the existence of unobservable harms. As we noted above, Mexico argues that the evidence for the existence of unobservable harms is "speculative, biased, and faulty".[482] However, as we also noted above, the Appellate Body has made clear that compliance panels should follow the reasoning of previous panels and the Appellate Body, unless there has been a change in the underlying evidence.[483] Accordingly, we will focus our assessment of this issue on whether there is new evidence on the record that calls into question the conclusions of the previous panels and Appellate Body regarding unobservable harms caused by setting on dolphins in the ETP.

7.288. According to Mexico, the evidence regarding unobservable effects of setting on dolphins in the ETP is based on speculative hypotheses, all initially motivated by the assumption that dolphin populations were not growing at expected rates.[484] However, in Mexico's view, the assumption that dolphin populations were not recovering as expected has subsequently been found to be inaccurate, including by the US Department of Commerce itself.[485] Accordingly, because all the evidence concerning unobservable harms is based on the "assumption" that dolphin stocks were not recovering, and because that assumption is *incorrect*, there remains no support for the proposition that setting on dolphins causes unobservable harms.[486] Indeed, in Mexico's view, "the *only* objective scientific evidence of the magnitude of any unobservable harms caused by AIDCP-compliant dolphin encirclement is the evidence related to the growth of dolphin stocks".[487] Thus, according to Mexico, since dolphin stocks are increasing, there is no basis for concluding that setting on dolphins has any unobservable effects.

7.289. At the outset, we observe that one of the key pieces of evidence on which Mexico relies in support of its proposition that dolphin stocks are recovering – Exhibit MEX-13[488] – was on the record in the first compliance proceedings, and accordingly does not constitute a change in the underlying factual record. However, we also note that Mexico has also submitted a recent scientific article suggesting that dolphin stocks in the ETP have likely been underestimated, perhaps by more than 50%.[489]

7.290. The United States questions whether the evidence submitted by Mexico indeed shows that dolphin populations in the ETP are recovering.[490] Moreover, the United States argues that the various exhibits it has submitted (and that have been relied on in previous stages of this dispute) indicate that setting on dolphins has unobservable effects on dolphins "independent from any population assessment".[491]

7.291. In our view, the evidence on the record does not unambiguously indicate that dolphin stocks in the ETP are recovering. We recognize that the NOAA Technical Memorandum suggests that "[o]bservers as a group have generally been consistent in their tendency to underestimate schools", and indicates that numbers may have been underestimated *inter alia*, due, to the failure to include certain data in the calculations and computer software that excluded certain dolphin sightings.[492] Moreover, we have no reason to doubt that, as Jay Barlow concludes in his article

[482] Mexico's first written submission, para. 53.
[483] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 5.9 (referring to Appellate Body Report, *US – Softwood Lumber VI (Article 21.5 – Canada)*, para. 103; Appellate Body Report, *US – Upland Cotton (Article 21.5 – Brazil)*, para. 386).
[484] Mexico's response to Panels' question No. 61, para. 22.
[485] Mexico's first written submission, para. 54.
[486] Mexico's first written submission, para. 61.
[487] Mexico's first written submission, para. 61.
[488] NOAA Technical Memorandum NMFS, Estimates of 2006 Dolphin Abundance In The Eastern Tropical Pacific, With Revised Estimates From 1986-2003 (April 2008), (Exhibit MEX-13), in the previous proceedings (Exhibit USA-50).
[489] J. Barlow, Inferring trackline detection probabilities, g(0), for cetaceans from apparent densities in different survey conditions,, Marine Mammal Science (2015), (Exhibit MEX-53). According to the article, underestimation may result from the fact that "animals are harder to see when sighting conditions are worse" (p. 9), and therefore the number of dolphins in "rough sea conditions" appears to decline (pp. 10-11).
[490] United States' second written submission, paras. 68-69.
[491] United States' second written submission, para. 70.
[492] NOAA Technical Memorandum NMFS, Estimates of 2006 Dolphin Abundance In The Eastern Tropical Pacific, With Revised Estimates From 1986-2003 (April 2008), (Exhibit MEX-13), pp. 11-12.

submitted by Mexico, dolphin populations may be underestimated due to the difficulty of observing dolphins in rough ocean conditions.[493]

7.292. That said, we note that the NOAA Technical Memorandum makes no firm conclusions as to the recovery of dolphin stocks in the ETP. It states that certain stocks *may* be beginning to recover[494], but also notes that this "interpretation must be tempered by several caveats"[495], including statistic uncertainty and the possibility that depleted ETP dolphin stocks are being increased by the migration of dolphins across the geographic boundaries that define the northeastern and western/southern spotted dolphin stocks.[496] Additionally, a more recent study suggests that dolphin stocks in the ETP may not, in, fact, be recovering as expected.[497]

7.293. In our view, therefore, the evidence falls short of establishing that the assumption that dolphin stocks are not recovering at the expected rate is "inaccurate", as Mexico alleges.[498] While the evidence suggests that dolphin stocks may have been underestimated in some population surveys, it does not establish that the stocks are necessarily recovering at the expected rate.

7.294. At any rate, it is in our view unnecessary in the context of these proceedings to come to a definite view on this issue, because we do not agree with Mexico that all of the evidence concerning unobservable effects depends on an assumption that dolphin stocks are not growing at the expected rate. In this sense, we do not agree with Mexico that unobservable harms would necessarily be reflected in dolphin stocks.[499] Rather, the evidence on the record seems to support the view that setting on dolphins has negative unobservable effects on dolphins, even though these effects may not be manifest at a population level.

7.295. For example, the article "Physiological and Behavioral Development in Delphinid Calves: Implications for Calf Separation and Mortality due to Tuna Purse Seine Nets", written by Shawn R. Noren and Elizabeth F. Edwards and published in Marine Mammal Science in 2007, notes that "unobserved calf mortality *could* affect recovery of dolphin populations".[500] It does not, however, suggest that the cow-calf separation is in itself a speculation based on unexpectedly slow recovery rates. Rather, the article clearly finds that "dolphin calves become separated from their mothers during tuna purse seine activities" and that "[w]ithout their mothers, calves have an increased risk of mortality due to starvation and predation".[501] The article also finds that "[t]he fishing intensity in the ETP provides ample opportunities for mother-calf separations and subsequent calf mortality to occur".[502] Thus, it is the possible population-level effects of cow-calf separation, rather than the phenomenon of cow-calf separation itself, that appears to be presented as hypothetical in this article.[503]

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[493] J. Barlow, Inferring trackline detection probabilities, g(0), for cetaceans from apparent densities in different survey conditions, Marine Mammal Science (2015), (Exhibit MEX-53), pp. 10-11.

[494] NOAA Technical Memorandum NMFS, Estimates of 2006 Dolphin Abundance In The Eastern Tropical Pacific, With Revised Estimates From 1986-2003 (April 2008) (Exhibit MEX-13), p. 12.

[495] NOAA Technical Memorandum NMFS, Estimates of 2006 Dolphin Abundance In The Eastern Tropical Pacific, With Revised Estimates From 1986-2003 (April 2008) (Exhibit MEX-13), p. 12.

[496] NOAA Technical Memorandum NMFS, Estimates of 2006 Dolphin Abundance In The Eastern Tropical Pacific, With Revised Estimates From 1986-2003 (April 2008) (Exhibit MEX-13), pp. 12-13.

[497] Andre E. Punt, Independent Review of the Eastern Pacific Ocean Dolphin Population Assessment, IATTC Special Report (2013), (Exhibit USA-104), p. 7 (noting the "(possible) lack of recovery of the eastern stock of spinner dolphins and of the North-Eastern stock of the spotted dolphins").

[498] Mexico's first written submission, para. 54.

[499] Mexico's first written submission, para. 61.

[500] Shawn R. Noren, and Elizabeth F. Edwards, Physiological and Behavioral Development in Delphinid Calves: Implications for Calf Separation and Mortality Due to Tuna Purse-Seine Sets, 23 Marine Mammal Science (2007), (Exhibit USA-43), p. 16 (emphasis added).

[501] Shawn R. Noren, and Elizabeth F. Edwards, Physiological and Behavioral Development in Delphinid Calves: Implications for Calf Separation and Mortality Due to Tuna Purse-Seine Sets, 23 Marine Mammal Science (2007), (Exhibit USA-43), p. 16.

[502] Shawn R. Noren, and Elizabeth F. Edwards, Physiological and Behavioral Development in Delphinid Calves: Implications for Calf Separation and Mortality Due to Tuna Purse-Seine Sets, 23 Marine Mammal Science (2007), (Exhibit USA-43), p. 16.

[503] Shawn R. Noren, and Elizabeth F. Edwards, Physiological and Behavioral Development in Delphinid Calves: Implications for Calf Separation and Mortality Due to Tuna Purse-Seine Sets, 23 Marine Mammal Science (2007), (Exhibit USA-43), p. 24. We note Mexico's argument that the research contained in this Exhibit was presented as "speculation" relying on the behavior of terrestrial herd-forming mammals, rather than on data concerning dolphins in the ETP. Mexico's first written submission, para. 62. We do not read the Exhibit in

7.296. The same is true of the article "Declines in reproductive output in two dolphin populations depleted by the yellowfin tuna purse seine fishery", written by Katie L. Cramer, Wayne L. Perryman and Tim Gerrodette and published in 2008.[504] This article, like the article by Noren and Edwards, considers that cow-calf separation could be restricting population recovery. It does not, however, suggest that the phenomenon of cow-calf separation is in itself hypothetical. Rather, it too states unequivocally that "75 to 95% of lactating females killed in purse seines do not have their nursing calves with them", and that "encirclement could have negative physiological consequences for individual dolphins".[505] It is the possible impact of these phenomena on the stock, rather than the phenomena themselves, that appear to be theoretical in this article.[506]

7.297. Other exhibits concerning unobservable harms similarly do not rely on the assumption that dolphin stocks in the ETP are not recovering at expected rates. For example, the article "Adrenocortical color darkness and correlates as indicators of continuous acute premortem stress in chased and purse-seine captured male dolphins" by Albert C. Myrick Jr. and Peter C. Perkins, published in Pathophysiology in 1995, finds that "[a] dolphin fishing set subjects dolphins to many strong, unavoidable stimuli including forced high-speed swimming, close pursuit, gear and vessel noise, turbulence, confinement, and crowding", and that "many set stimuli should stress dolphins acutely",[507] with stress defined as a "condition caused by factors impairing an animal's well-being by forcing its systems into oscillatory instability and altering normal oscillatory performances ("homeostasis" sensu lato)".[508] The same article concludes that all animals sampled showed signs

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this way. As we understand it, although the authors of the Exhibit make comparisons between dolphins and other terrestrial mammals, they do not rely on those comparisons in arriving at their conclusions, which are based on photographs of dolphins in the ETP as well as scientific knowledge about dolphin behaviour. The comparisons with other mammals are made to obtain additional "clues" as to possible dolphin behavior. Moreover, we note that even if the authors had relied entirely on comparisons between dolphins and other terrestrial mammals, as Mexico argues, this would not of itself be reason for us to disregard or accord less weight to the Exhibit. Mexico has not argued or established that reliance on such comparisons would be unscientific or unobjective, or would otherwise undermine the conclusion reached by the authors. In this connection, we note that the Exhibit in question is a scientific study published in a journal called Marine Mammal Science. The fact of its publication in such a journal suggests to us that the methodology used was objective and accepted in the relevant scientific community. Mexico has not suggested otherwise, and we have no basis to question the study's legitimacy. As such, even if Mexico's argument were correct, it would not provide a basis for us to ignore or accord less weight to the Exhibit in question.

[504] Katie L. Cramer, Wayne L. Perryman and Tim Gerrodette, Declines in Reproductive Output in Two Dolphin Populations Depleted by the Yellowfin Tuna Purse Seine Fishery, 369 Marine Ecology Progress Series 273 (2008), (Exhibit USA-45).

[505] Katie L. Cramer, Wayne L. Perryman and Tim Gerrodette, Declines in Reproductive Output in Two Dolphin Populations Depleted by the Yellowfin Tuna Purse Seine Fishery, 369 Marine Ecology Progress Series 273 (2008), (Exhibit USA-45), p. 274.

[506] Katie L. Cramer, Wayne L. Perryman and Tim Gerrodette, Declines in Reproductive Output in Two Dolphin Populations Depleted by the Yellowfin Tuna Purse Seine Fishery, 369 Marine Ecology Progress Series 273 (2008), (Exhibit USA-45), p. 282. A number of other exhibits also indicate that cow-calf separation occurs as a result of the chase: see e.g. Paul R. Wade et al., Depletion of Spotted and Spinner Dolphins in the Eastern Tropical Pacific: Modeling Hypothesis for their Lack of Recovery, 343 Marine Ecology Progress Series 1 (2007), (Exhibit USA-48), p. 11; Elizabeth Edwards, Fishery Effects on Dolphins Targeted by Tuna Purse-Seiners in the Eastern Tropical Pacific Ocean, 20 Int'l J. Comp. Psychology 217 (2007), (Exhibit USA-140), pp. 224-225. We note Mexico's argument that Exhibit USA-45 itself states that its analysis only applies to the northeastern offshore spotted stock and that its hypothesis is speculative. Mexico's first written submission, para. 62. We do not consider that Mexico's argument undermines the probative value of this Exhibit. The fact that the Exhibit relates only to one stock of dolphins in the ETP does not, in our view, mean that its conclusions are not reliable. Moreover, we do not agree that the Exhibit states its conclusions as mere hypothesis. To the contrary, the Exhibit announces its conclusions about the existence of unobservable harms caused by setting on dolphins in unequivocal terms, for example at page 282, where the Exhibit states that "the practice of setting on dolphins has population-level effects beyond the direct kill reported by observers on fishing vessels". Morever, even if the study were based on hypothesis or some kind of speculation, Mexico has not established that this would invalidate the study. Mexico has not pointed to any methodological shortcomings that would render the Exhibit unreliable or unobjective. We note that the Exhibit in question is a scientific study published in a journal called Marine Ecology Progress Series. The fact of its publication in such a journal suggests to us that the methodology used was objective and accepted in the relevant scientific community. Mexico has not suggested otherwise.As such, even if Mexico's argument were correct, it would not provide a basis for us to ignore or accord less weight to the Exhibit in question.

[507] Albert C. Myrick and Peter C. Perkins, Adrenocortical Color Darkness and Correlates as Indicators of Continuous Acute Premortem Stress in Chased and Purse-Seine Captured Male Dolphins, 2 Pathophysiology 191 (1995), (Exhibit USA-46), p. 192.

[508] Albert C. Myrick and Peter C. Perkins, Adrenocortical Color Darkness and Correlates as Indicators of Continuous Acute Premortem Stress in Chased and Purse-Seine Captured Male Dolphins, 2 Pathophysiology 191 (1995), (Exhibit USA-46), p. 191.

of continuous acute stress prior to their deaths, but that "entanglement and death throes were not the primary source" of this stress, meaning that the stress was likely caused by the chase itself.[509] Moreover, the study found that the sampled dolphins were in a state of continuous acute stress "for an hour or more up to the time of death".[510]

7.298. Mexico submitted a more recent academic article that, in its view, casts doubt on the conclusions of the paper by Myrick and Perkins.[511] This paper, published in 2013 in Marine Mammal Science, is entitled "Hematological, serum, and plasma chemical constituents in pantropical spotted dolphins (Stenella attenuata) following chase, encirclement, and tagging". Mexico notes that this paper finds that:

> It might be expected that dolphins subjected to the continuous stress of confinement and gradual constriction of the space around them would express these changes to an increasing degree over time. In fact, few such associations were detected statistically, and several of those that were detected ran counter to the anticipated direction of change.[512]

7.299. We note, however, that this passage appears to relate to the way in which the intensity of identified stress effects changes over the course of a particular chase. As we read it, this statement does not suggest that dolphins do not suffer stress effects as a result of the chase.

7.300. Indeed, when read as a whole, this paper supports, rather than contradicts, the findings of Myrick and Perkins. The paper clearly finds that "a stress response occurred in all dolphins" sampled.[513] Moreover, despite apparently considerable logistical challenges in conducting their study[514], the authors conclude that:

> [C]hase and encirclement of dolphins by a tuna purse seiner results in a measurable stress response typical of odontocetes. The response is characterized by elevated blood catecholamine, cortisol, and ACTH levels, as well as a mild elevation of enzymes released from muscle following exertion.[515]

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[509] Albert C. Myrick and Peter C. Perkins, Adrenocortical Color Darkness and Correlates as Indicators of Continuous Acute Premortem Stress in Chased and Purse-Seine Captured Male Dolphins, 2 Pathophysiology 191 (1995), (Exhibit USA-46), p. 201.

[510] Albert C. Myrick and Peter C. Perkins, Adrenocortical Color Darkness and Correlates as Indicators of Continuous Acute Premortem Stress in Chased and Purse-Seine Captured Male Dolphins, 2 Pathophysiology 191 (1995), (Exhibit USA-46), p. 202.

[511] Mexico's first written submission, para. 62.

[512] David St. Aubin, et al., Hematological, serum, and plasma chemical constituents in pantropical spotted dolphins (Stenella attenuata) following chase, encirclement, and tagging, Marine Mammal Science, 29(1), (Exhibit MEX-14), p. 29.

[513] David St. Aubin, et al., Hematological, serum, and plasma chemical constituents in pantropical spotted dolphins (Stenella attenuata) following chase, encirclement, and tagging, Marine Mammal Science, 29(1), (Exhibit MEX-14), p. 15.

[514] David St. Aubin, et al., Hematological, serum, and plasma chemical constituents in pantropical spotted dolphins (Stenella attenuata) following chase, encirclement, and tagging, Marine Mammal Science, 29(1), (Exhibit MEX-14), pp. 28-29.

[515] David St. Aubin, et al., Hematological, serum, and plasma chemical constituents in pantropical spotted dolphins (Stenella attenuata) following chase, encirclement, and tagging, Marine Mammal Science, 29(1), (Exhibit MEX-14), p. 32. We note Mexico's argument that Exhibit MEX-14 itself states that, with respect to the apparent persistence of elevated levels of one of the hormones associated with stress that were measured in the study in this Exhibit, "more likely, chasing by swimmers,handling, and sampling for this study caused restimulation of the hypothalamic pituitary axis for these dolphins". Mexico's first written submission, para. 62. We observe, however, that this statement relates to the possible reason for the *persistence* of *one* of the hormones associated with stress in dolphins. Moreover, the authors of the study in this Exhibit, even after acknowledging that the persistence of this hormone was likely caused by swimmers handling and sampling dolphins for the study, nevertheless clearly conclude at page 32 that the "chase and encirclement of dolphins by a tuna purse seiner results in a measurable stress response typical of odontocetes". Accordingly, the point identified by Mexico was apparently not considered by the authors of the study to undermine their conclusion that setting on dolphins causes measurable stress effects on dolphins. Mexico has not identified or established any methodological flaw or shortcoming in this study that would undermine its evidentiary value. In this connection, we note that the Exhibit in question is a scientific study published in a journal called Marine Mammal Science. The fact of its publication in such a journal suggests to us that the methodology used was objective and accepted in the relevant scientific community. Mexico has not suggested otherwise, and we have no basis to question the scientific or methodological legitimacy or objectivity of the study.

7.301. A number of other studies submitted by the United States also indicate that dolphins suffer stress as a result of the chase and encirclement process. These studies are not tied to the growth rate of dolphin populations. For example, the report contained in Exhibit USA-47 indicates that there is "some evidence" for "potential stress-related injury or unobserved mortality of dolphins involved in purse seine fishing operations", including "(a) moderately elevated stress hormones and enzymes indicative of muscle damage observed in live dolphins examined in the nets; (b) evidence of past (healed) muscle and heart damage in dolphins killed during fishing operations; and (c) fatal heart damage in virtually all fishery-killed dolphins, which most likely was related to elevated catecholomines".[516] These findings are not connected to or underpinned by any assumption about the recovery of dolphin stocks.[517]

7.302. Similarly, the article submitted in Exhibit USA-48 and entitled "Depletion of spotted and spinner dolphins in the Eastern Tropical Pacific: modeling hypothesis for their lack of recovery" that was published in 2007 in the Marine Ecology Progress Series, observes that:

> Chase and encirclement by purse-seine vessels and their speedboats may (1) cause changes in tissue chemistry that are associated with stress, (2) elevate body temperature and physically damage organ systems, (3) increase bioenergetics demands, and (4) influence swimming and schooling dynamics and behavior.[518]

7.303. The article then states that "[w]hile these physiological and behavioral changes may affect some individuals, they have not been shown to be common enough to have population-level consequences"[519], thus confirming that such effects exist regardless of whether they affect the population level.

7.304. Additionally, the United States submitted two new exhibits that, in its view, confirm the findings of the previous panels and Appellate Body on the existence of unobserved harms. Exhibit USA-140 contains a 2007 article entitled "Fishery Effects on Dolphins Targeted by Tuna Purse-seiners in the Eastern Tropical Pacific Ocean" and written by Elizabeth F. Edwards. It reviews the existing literature and finds that:

> [S]tudies of fishery effects on ETP dolphin physiology, behavior, and population dynamics indicate that adult dolphins chased, encircled, and released during tuna purse-seine sets experience acute, intense stress during the event but most appear to

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[516] Stephen B. Reilly et al., Report of the Scientific Research Program Under the International Dolphin Conservation Program Act (2005), (Exhibit USA-47), p. 25. The report notes that while all sampled live dolphins were "well within those ranges from which dolphins are expected to recover fully", there is nevertheless a risk of more serious stress effects that could lead to mortality "within hours or days of being released".

[517] We note Mexico's argument that the Exhibit states that no live dolphins evidencing such a strong stress reaction from the capture procedure has ever been identified or sampled. Mexico's second written submission, fn. 14. However, a plain reading of the Exhibit and the passage in question makes clear that this statement relates to what the authors of the research call "stronger" stress reactions, i.e. stress reactions that are stronger than ordinarily observed and they may be caused by "'catastrophic' aspects of fishery operations when dolphins may become trapped under a canopy in the net". The authors contrast such "stronger" stress reactions with "[t]he responses observed in the sampled live animals [which] were well within those ranges from which dolphins are expected to recover fully". We note, however, that the fact that dolphins are expected to recover from observed stress does not undermine or contradict the proposition that setting on dolphins does cause stress to dolphins. To the contrary, it *confirms* that setting on dolphins causes stress to dolphins, even though most dolphins are expected to recover. Thus, the fact that most dolphins are expected to recover from this stress is, in our view, beside the point. Moreover, we note that the mere fact that no live dolphin exhibiting "stronger" stress reactions has been identified or sampled is not of itself sufficient to undermine the authors' conclusions. Mexico has not alleged or explained why such lack of live testing would undermine the objectivity or scientific credibility of the authors' conclusions. We note that this Exhibit contains research conducted under a scientific research program under the auspices of the US International Dolphin Conservation Program Act. The scientific nature of the research suggests to us that the methodology used was objective and accepted in the relevant scientific community. Mexico has not suggested otherwise, and we have no basis to question the scientific or methodological legitimacy or objectivity of the study.

[518] Paul R. Wade et al., Depletion of Spotted and Spinner Dolphins in the Eastern Tropical Pacific: Modeling Hypothesis for their Lack of Recovery, 343 Marine Ecology Progress Series 1 (2007), (Exhibit USA-48), p. 11 (internal citations omitted).

[519] Paul R. Wade et al., Depletion of Spotted and Spinner Dolphins in the Eastern Tropical Pacific: Modeling Hypothesis for their Lack of Recovery, 343 Marine Ecology Progress Series 1 (2007), (Exhibit USA-48), p. 11.

> recover from this experience, though some may develop long-term sequelae such as vascular and muscle lesions, reproductive failure, or reduced survival.[520]

7.305. It also makes clear that while "it is possible that fishery effects on adults remain an important factor in the observed lack of population recovery"[521], the existence of these effects is not tied to the recovery rate of the dolphin stocks, though they may have an effect on it.[522]

7.306. Exhibit USA-206 also contains an article, this one entitled "Estimation of relative exposure of dolphins to fishery activity" and published in 2010. This article notes that setting on dolphins has a negative effect on dolphin reproduction.[523]

7.307. Finally, we observe that, in addition to the scientific studies discussed above, some environmental NGOs have also expressed concern about possible unobservable effects of setting on dolphins in the ETP. For example, according to the World Wildlife Fund, unobservable harms "are more detrimental than even an observed mortality of 15,000 dolphins per year".[524]

7.308. In our view, this evidence, much of which has been considered in previous stages of this dispute, indeed establishes that setting on dolphins causes unobservable harms. We do not agree with Mexico that this evidence is "speculative". Neither do we agree with Mexico that the studies are based on the assumption that dolphin stocks in the ETP are not recovering at the expected rate. While some of the studies suggest that unobservable effects may have an impact on population recovery, the existence of those effects is not tied to the rate at which ETP dolphin stocks are recovering. Moreover, while some of the studies express uncertainty about the precise scope, extent, and impact of unobservable harms, none appears to doubt that unobserved harms exist and affect dolphins. The studies are also uniform in suggesting that these harms are caused by the chase itself.

7.309. Accordingly, we find no basis in the record to depart from the findings made in previous stages of this dispute that setting on dolphins causes unobservable harms including "cow-calf separation; potential muscle injury resulting from the chase; immune and reproductive systems failures; and other adverse health consequences for dolphins, such as continuous acute stress".[525] Further, as explained above, new evidence placed on the record of these proceedings also confirms these findings.

7.310. Because of the qualitative nature of the evidence on the record, we are not in a position to estimate, with any accuracy, the *number* of dolphins affected by unobservable harms. However, given that the evidence supports the existing finding that these harms are caused by the chase itself, and given that some six million dolphins are chased per year in the ETP large purse seine fishery, it seems reasonable to think that each of those dolphins is *at risk* of suffering unobservable harms, even though the evidence does not indicate that *every* dolphin chased will in fact suffer such harms. Indeed, as noted above, some of the evidence on the record suggests that

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[520] Elizabeth Edwards, Fishery Effects on Dolphins Targeted by Tuna Purse-Seiners in the Eastern Tropical Pacific Ocean, 20 Int'l J. Comp. Psychology 217 (2007), (Exhibit USA-140), p. 224.

[521] Elizabeth Edwards, Fishery Effects on Dolphins Targeted by Tuna Purse-Seiners in the Eastern Tropical Pacific Ocean, 20 Int'l J. Comp. Psychology 217 (2007), (Exhibit USA-140), p. 224.

[522] Mexico argues that this Exhibit is a review of prior publications and does not contain any new research. Mexico's response to Panels' question No. 61, para. 18. We agree, as we acknowledge in the text of paragraph 7.304However, Mexico has not argued that this fact undermines the credibility or objectivity of the conclusions drawn in the Exhibit. Neither do we consider that the conclusions drawn in this Exhibit are invalid simply because they are based on a review of existing studies rather than original research. Mexico has not pointed to any methodological flaw or shortcoming in the Exhibit, and accordingly the mere fact that its conclusions are not based on original research does not consistute a reason for ignoring or according less weight to this Exhibit.

[523] Frederick I. Archer et al., Estimation of Relative Exposure of Dolphins to Fishery Activity, 410 Marine Ecology Progress Series 245 (2010), (Exhibit USA-206), p. 253.

[524] Letter from Annika Machensen, WWF, to Sian Morgan, WWF input: Northeastern Tropical Purse Seine YFT and SKJ Fishery (January 16, 2015), (Exhibit USA-142), p. 6. We note Mexico's argument that this letter provides no citation or other source for the figure of 15,000 and is therefore not probative evidence. Mexico's comments on the United States' response to Panels' question No. 8, para. 20. We observe, however, that the letter does in fact indicate on page 5 that the figure is based on "expert opinion from scientists and veterinarians who study and work with dolphins".

[525] Appellate Body Report, *US – Tuna II (Mexico)*, para. 330, fn. 663.

these effects are *not* so widespread as to have population-level effects.[526] Thus, in our view, the evidence indicates that all dolphins chased and encircled in the ETP are at risk of suffering unobservable harms, even though the evidence does not suggest that all or even the majority actually suffer such harms in the event. To us, this suggests that, because chasing and encirclement are essential elements of the process of setting on dolphins, setting on dolphins cannot be used without putting dolphins at risk, even though that risk may not eventuate in every set.[527]

7.311. Before concluding, we note Mexico's view that "[t]he only estimate of the magnitude of unobserved adverse effects on dolphins in the ETP is provided by a paper that theorizes that the unobserved impact is approximately 14 percent of the level of observed mortalities".[528] Mexico bases this argument on Exhibit USA-44, which contains a scientific article entitled "Annual estimates of unobserved incidental kill of pantropical spotted dolphin calves in the tuna purse seine fishery of the eastern tropical Pacific". In our view, however, this article does not support Mexico's contention. Rather, the article finds that the impact of cow-calf separation due to the death of the mother in a purse seine net can be estimated as being an additional 14% of observed mortalities.[529] Thus, the figure of 14% represents an estimate of the impact of *one type* of unobservable harms.[530] The article does not purport to estimate the equivalent in mortality of *all* unobservable effects. Indeed, as the evidence analysed above shows, not all unobservable harms in fact lead to mortality. Accordingly, we do not consider it appropriate to describe the impact of unobservable harms in terms of equivalent mortalities.

7.7.2.2 Purse seine fishing without setting on dolphins

7.7.2.2.1 Introduction

7.312. We now turn to review the evidence concerning the risks to dolphins caused by purse seine fishing without setting on dolphins, in different parts of the ocean.

7.313. We note that while the basic operation of purse seining is the same, depending on the way in which tuna is detected and encircled, this method is classified into variations, including purse seine using dolphin sets or other types of sets. As explained by the FAO, tuna may be detected because of certain behaviours of a tuna school that makes them visible, or because of an association of a tuna school with objects or with other species (seabirds, dolphins, whales, whale sharks, etc.).[531] In this connection, we observe that the FAO mentions four types of sets a purse seine may make: (i) school sets, (ii) dolphin sets, (iii) sets on seamounts and (iv) floating object sets.[532] In these Reports, when we refer to purse seine fishing *without* setting on dolphins, our reference includes all types of purse seine fishing other than setting on dolphins.

7.314. Regarding school sets, the FAO explains that "[i]n these sets, the tuna school is detected because of its activity at or near the surface of the water. Typically, a disturbance on the ocean surface is detected from the vessel. A tuna school in a feeding frenzy or other type of very active behaviour close to the surface has caused the disturbance. Fishers recognize and identify, with different names, a variety of school sets".[533]

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[526] Paul R. Wade et al., Depletion of Spotted and Spinner Dolphins in the Eastern Tropical Pacific: Modeling Hypothesis for their Lack of Recovery, 343 Marine Ecology Progress Series 1 (2007), (Exhibit USA-48), p. 11.

[527] We note that, because of the nature of unobservable harms, it would not be possible to determine with certainty whether one or more dolphins did suffer unobservable harms as a result of any set.

[528] Mexico's first written submission, para. 64.

[529] Frederick Archer et al., Annual Estimates of the Unobserved Incidental Kill of Pantropical Spotted Dolphin (Stenella Attenuata Attenuata) Calves in the Tuna Purse-Seine Fishery of the Eastern Tropical Pacific, 102 Fishery Bulletin 233 (2004), (Exhibit USA-44), pp. 242-244.

[530] This was understood by the original panel, which found that "dolphin mortality is at least 14% greater than observed dolphin mortality *due to dependent calves that are separated from their mothers*". Panel Report, *US – Tuna II (Mexico)*, para. 4.356 (emphasis added).

[531] Bycatch and non-tuna catch in the tropical tuna purse seine fisheries of the world, FAO Fisheries and Aquaculture Technical Paper 568, (Exhibit USA-60), p. 17.

[532] Bycatch and non-tuna catch in the tropical tuna purse seine fisheries of the world, FAO Fisheries and Aquaculture Technical Paper 568, (Exhibit USA-60), pp. 17-24.

[533] Bycatch and non-tuna catch in the tropical tuna purse seine fisheries of the world, FAO Fisheries and Aquaculture Technical Paper 568, (Exhibit USA-60), p.17. We note the following statements regarding the

7.315. Regarding sets on seamounts, a category of oceanic ridges, the FAO explains that "[i]n many regions, tuna schools are found associated with seamounts … and the category is used to classify sets".[534]

7.316. Regarding floating objects sets, the FAO explains that "[m]any species are found growing on or under floating objects … A list of more than 300 fish species associated with floating objects has been compiled … Several tuna species of commercial and recreational value are included among them. Fishers discovered the association of tuna schools with floating objects early on, and took advantage of the opportunity offered by a behaviour that made the detection and the capture easier than for unassociated schools, because of the strength of the association that kept the school relatively fixed in space, drifting with the object. The fishery on floating objects started as an opportunistic operation, whenever an object was encountered".[535]

7.7.2.2.2 Findings made in the previous proceedings

7.317. Purse seine fishing without setting on dolphins has been discussed and analysed in the previous stages of this dispute. In this connection, we recall the Appellate Body's statement that "doubts could arise about the objective nature of an Article 21.5 panel's assessment" if, on a specific issue, that panel were to "deviate from the reasoning" in the original report "in the absence of any change in the underlying evidence in the record".[536] Thus, in our factual assessment of purse seine fishing without setting on dolphins, we will take due account of the findings made by the panels and the Appellate Body in the original and first compliance proceedings regarding this particular method.

7.318. We recall that the original panel referred to "unassociated purse seine sets (sets on floating objects such as FADs and free swimming schools)"[537], without distinguishing between the three types of such unassociated sets. With regard to observed harms, the original panel found that "[…] use of unassociated purse-seine sets or FADs to catch tuna may result, in certain cases, in substantial dolphin bycatch".[538] Similarly, the Appellate Body in the original proceedings found that "it has been established that dolphin mortalities occur in relation to all the major commercial tuna-fishing methods, including fish aggregating devices ('FAD') sets, unassociated sets".[539] The first compliance panel also noted that "[t]he risks to dolphins from other fishing techniques are [not] insignificant"[540], although it did not refer in detail to purse seine fishing without setting on dolphins. On appeal in the first compliance proceedings, the Appellate Body observed that "the Panel explicitly acknowledged that Mexico submitted evidence concerning the extent of mortality and serious injury caused by tuna fishing methods including FAD fishing […], but again opined that

notion of "unassociated sets": "Two names, school sets and unassociated sets, have been used for the same type of set. In recent years, part of the literature has replaced school sets with unassociated sets. School set seems to imply that this is the only type of set where a school is captured. "Unassociated set" is a definition by a negative, and the tuna schools are frequently associated with other schools of different species, and also with seabirds, that facilitate the detection. Both terms can be used, but school set is preferred because the fishers use and understand this one to describe these sets. This is one case where researchers try to impose a definition that is meaningful to them, replacing one that is meaningful to the fishers. As one of the objectives of tuna researchers should be to communicate with fishers, it makes sense that they follow the language of those that spend their time fishing, and understand their logic. When a vessel makes a set, it is made on a log, on a FAD, on dolphins, or on a school of tunas. The description is correct and accurate, and the logic is obvious".

[534] Bycatch and non-tuna catch in the tropical tuna purse seine fisheries of the world, FAO Fisheries and Aquaculture Technical Paper 568, (Exhibit USA-60), p. 19.

[535] Bycatch and non-tuna catch in the tropical tuna purse seine fisheries of the world, FAO Fisheries and Aquaculture Technical Paper 568, (Exhibit USA-60), p. 20.

[536] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 5.9 (referring to Appellate Body Report, *US – Softwood Lumber VI (Article 21.5 – Canada)*, para. 103; *US – Upland Cotton (Article 21.5 – Brazil)*, para. 386).

[537] Panel Report, *US – Tuna II (Mexico)*, para. 7.534. We note that Mexico itself seems to have this same understanding: "Purse seine nets can be set on logs or fishing aggregating devices (FADs), which capitalize on the fact that sea life is attracted to the shadows that are cast by floating objects. This method attracts and kills immature as well as mature tuna, as well as a wide variety of other bycatch, including sea turtles, sharks, and other species. Purse seine nets can also be set on 'free-swimming' schools of tuna (i.e. "unassociated sets"), which are not associated with logs or FADs but which also result in significant levels of bycatch". Mexico's first written submission, para. 34 (footnotes omitted).

[538] Panel Report, *US – Tuna II (Mexico)*, para. 7.521.

[539] Appellate Body Report, *US – Tuna II (Mexico)*, paras. 60, 289.

[540] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.124, Appellate Body Report, *US – Tuna II (Mexico)*, para. 289.

none of this evidence suggested that such fishing methods inflict the same kinds of unobserved effects as setting on dolphins".[541]

7.319. We note, however, that the previous findings on purse seine fishing without setting on dolphins did not go into detail regarding the nature and scope of the observable harms posed by this fishing method. This contrasts with the detailed findings made regarding purse seine fishing by setting on dolphins.

7.7.2.2.3 Panels' assessment in the present proceedings

7.320. Having recalled the previous findings concerning purse seine fishing without setting on dolphins, we now turn to the assessment of parties' arguments and evidence regarding the risk profile of this fishing method, starting with observable harms and moving on to unobservable harms.

7.321. We note at the outset that the United States contends that, in contrast to the ETP large purse seine fishery, in purse seine fisheries outside the ETP, there is no evidence that vessels routinely intentionally set on dolphins. Rather, according to the United States, the available evidence describes only isolated, accidental or opportunistic incidents of sets on marine mammals that are in the vicinity of the tuna at a particular time. In this regard, the United States maintains that less than 1% of the sets in purse seine fisheries outside the ETP involve any interaction at all with a dolphin, much less a mortality or serious injury.[542] To support its contention about the extent of dolphin interactions outside the ETP, the United States submits the following table[543], later revised in Exhibit USA-179 Rev.:

United States' Summary of the Evidence					
Fishery	**Year**	**Sets with Dolphin Interactions**	**Dolphins Chased**	**Dolphin Interactions**	**% Sets with Dolphin Interactions**
WCPFC Purse Seine[544]	2007-2009	134	no evidence of any	798	0.70%
	2010	37	no evidence of any	144[545]	0.18%
Eastern Tropical Atlantic Purse Seine[546]	2003-2009	0	0	0	0%
Indian Ocean Tropical Purse Seine[547]	2003-2009	fewer than 31	no evidence of any	unknown	less than 1% for all marine mammals

7.322. The United States also points out that the first compliance panel found that most of the interactions that do occur outside the ETP are accidental[548], and accepted that there is no evidence that vessels routinely chase dolphins outside the ETP.[549] The United States further submits that,

[541] Appellate Body Report,*US – Tuna II (Mexico) (Article 21.5 – Mexico),* para. 7.246.
[542] United States' first written submission, para. 51.
[543] United States' first written submission, para. 51.
[544] Summary Information on Whale Shark and Cetacean Interactions in the Tropical WCPFC Purse Seine Fishery, Paper prepared by SPC-OFP, 8th Regular Session, Koror, Palau (November 2011), (Exhibit USA-17), Table 2a, 2b; WCPFC Scientific Committee, Fifth Regular Session Summary Report (2009), (Exhibit USA-18), p. 15.
[545] We note that the original number contained in the United States' first written submission was "397", but it was subsequently revised to "144" through Exhibit USA-179 Rev.
[546] Monin J. Amande et al., Bycatch of the European Purse Seine Tuna Fishery in the Atlantic Ocean for the 2003-2007 Period, 23 Aquat. Living Resour. 353 (2010), (Exhibit USA-19), pp. 355-358; Monin J. Amande et al., Bycatch and Discards of the European Purse Seine Tuna Fishery in the Atlantic Ocean: Estimation and Characteristics for 2008 and 2009, 66 ICCAT Collect. Vol. Sci. Papers 2113, (2011), (Exhibit USA-20), pp. 2114-2118.
[547] Monin J. Amande et al., Precision in Bycatch Estimates: The Case of Tuna Purse Seine Fisheries in the Indian Ocean, ICES J. Mar. Sci. (2012), (Exhibit USA-21), pp. 2-3, and 6.
[548] United States' first written submission, para. 52 (referring to Panel report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.242 and Summary Information on Whale Shark and Cetacean Interactions in the Tropical WCPFC Purse Seine Fishery, Paper prepared by SPC-OFP, 8th Regular Session, Koror, Palau (November 2011), (Exhibit USA-17)).
[549] United States' first written submission, para. 52.

where an accidental capture of dolphins does occur, only a handful of dolphins are likely be captured, as opposed to the ETP large purse seine fishery, where on average 300-400 dolphins are captured per dolphin set.[550]

7.323. Regarding observable harms, Mexico argues that dolphin mortalities from purse seine fishing without setting on dolphin must be estimated to be at least 2,000 per year in the Philippines and at least 1,200 to 1,900 per year in the Western and Central Pacific Ocean. In Mexico's view, these levels of mortality are comparable to the equivalent of observed mortalities in the ETP. Mexico also submits that it is reasonable to assume that the same fishing method has similar adverse effects in other ocean areas.[551] Mexico argues that vessels fishing not in association with dolphins in the WCPO killed as many as 180, 45, 21 and 10 dolphins in individual sets.[552]

7.324. Regarding unobservable harms, Mexico contends that if the Panels accept that AIDCP-compliant dolphin encirclement has unobserved adverse effects on dolphins, they must also accept that purse seine fishing without dolphin encirclement similarly entails unobserved adverse effects as some of the dolphins killed by this fishing method will inevitably be dolphin cows and, thus the fishing method will effectively result in cow-calf separation effects. Mexico further submits that this level of adverse effects exceeds the adverse effects of AIDCP-compliant dolphin encirclement in the ETP.[553]

7.325. Mexico also contends that the first compliance panel found that purse seine fishing in general may result in substantial dolphin bycatch, even in circumstances not involving encirclement of dolphins.[554] Mexico notes that while the United States refers to annual reports submitted to the Western and Central Pacific Fisheries Commission (WCPFC) that purport to report on interactions with cetaceans[555], it leaves out the report on Papua New Guinea, which according to Mexico is the only country that sought to report comprehensive information from its own independent observer program. According to Mexico, Papua New Guinea reported that purse seine nets interacted with 292 dolphins in 2014 in its waters, of which all but 18 were reported to have been killed.[556] Mexico contends that, based on the fact that the catch of tuna with purse seine nets in Papua New Guinea's waters is approximately 14.5% of the catch in the Western and Central Pacific Convention area (296,000 out of a total of 2.037 million tonnes in 2014)[557], it is reasonable to assume that at least 1,890 dolphins were directly killed by purse seine nets in the WCPFC tuna fishery area in 2014.

7.326. The Panels begin by noting that the evidence on the record shows that purse seine fishing by setting on dolphins is mainly practiced in a widespread and systematic manner in the ETP.[558] However, it also shows that purse seine fishing without setting on dolphins is practiced in several areas of the ocean, including parts of the ETP, the Western and Central Pacific Ocean (WCPO), the Indian Ocean and the Eastern Tropical Atlantic Ocean. Therefore, in the present proceedings, the parties have presented evidence regarding the risks posed to dolphins by this fishing method in the mentioned areas of the ocean. Consequently, we find it appropriate to assess the parties' arguments and evidence regarding harms caused to dolphins by purse seining without setting on dolphins on an area by area basis.

7.327. Before proceeding to our analysis, we recall that as discussed in section 7.7.1.2 above, in our assessment of the overall relative levels of risks, we will use the per set data on the record. More specifically, we will make use of the data presented in Exhibit USA-179 Rev.

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[550] United States' first written submission, para. 52 (referring to Tables Summarizing Fishery-by-Fishery Evidence on the Record, (Exhibit USA-13)).

[551] Mexico's first written submission, para. 88.

[552] Mexico's responses to the Panels' questions, para. 181.

[553] Mexico's first written submission, paras. 88-89.

[554] Mexico's first written submission, para. 75 (referring to Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.132; and Panel Report, *US – Tuna II (Mexico)*, para. 7.521).

[555] Mexico's first written submission, para. 76 (referring to Tables Summarizing Fishery-by-Fishery Evidence on the Record, (Exhibit USA-13)).

[556] Mexico's first written submission, para. 76 (referring to Papua New Guinea, Annual Report to the Commission, WCPFC-SC11-AR/CCM-19 (August 2015), (Exhibit MEX-23)).

[557] Mexico's first written submission, para. 78 (referring to Papua New Guinea, Annual Report to the Commission, WCPFC-SC11-AR/CCM-19 (August 2015), (Exhibit MEX-23) and Western and Central Pacific Fisheries Commission (WCPFC), Yearbook 2014 (15 October 2015), (MEX-24)).

[558] See Section 7.7.2.1.

7.328. We first consider the evidence concerning purse seine fishing without setting on dolphins in the ETP.

7.329. We begin by noting that, regarding observable harms, the United States summarizes, on a per set basis, the evidence on observed mortalities and serious injuries for the ETP large purse seine fishery without setting on dolphins in the following table:[559]

United States' Summary of the Evidence				
Year	Observed Sets	Observed Mortality	Observed Serious Injury, Injury, or Released Alive	Mortality per 1,000 Sets
2009	11,186	2	0 injuries	0.18
2010	10,285	1	0 injuries	0.10
2011	12,103	10	0 injuries	0.83
2012	12,979	0	0 injuries	0.00
2013	12,194	1	0 injuries	0.08
2014	12,146	0	No data	0.00
Total	70,893	14	0 injured/released alive	0.20

7.330. Mexico has not commented on the figures presented in this table[560], nor has it introduced any evidence on the harms caused by purse seine fishing without setting on dolphins in the ETP.[561]

7.331. We note that the data presented in the above table is sourced from the IATTC, in particular, from (i) a report dated July 2014 that provides a summary of the fishery for tunas in the Eastern Pacific Ocean (EPO), an assessment of the major stocks of tunas and billfishes that are exploited in the fishery, and an evaluation of the pelagic ecosystem in the EPO[562], and (ii) a dataset of the EPO in the period 2009-2013 also prepared by the IATTC.[563] As the IATTC is an RFMO, and given that RFMOs are experts in the field of fisheries management, as discussed previously, we find it appropriate to rely on the data presented in the above-mentioned table in making our findings regarding the observable harms caused to dolphins by purse seining without setting on dolphins in the ETP.

7.332. On the basis of the data in the above table, we find that dolphin mortalities for the purse seine fishing without setting on dolphins in the ETP was on average below 0.2 per 1,000 sets in the 2009-2014 period, excluding a peak in 2011 where 10 mortalities were reported in 12,103 sets (corresponding to 0.83 mortality per 1,000 sets). We also find that, as shown in the same table, the number of serious injuries caused by purse seine fishing without setting on dolphins in the ETP has been zero in the 2009-2014 period.

7.333. We note that neither party has introduced any direct evidence on the extent of unobserved harms arising from ETP large purse seine fishing without setting on dolphins. In this regard, we recall the United States' contention that the frequency of dolphin interactions and the number of dolphins generally involved in the fishing method may constitute a good proxy for unobserved harms, as these figures would give a picture of how frequently dolphins might be endangered by a particular method, and represents the maximum possible number of mortalities and injuries.

[559] Tables Summarizing Fishery-by-Fishery Evidence on the Record, (Exhibit USA-179 Rev.). The evidence supporting the figures in this table is IATTC, Tuna, Billfishes and Other Pelagic Species in the Eastern Pacific Ocean in 2014, Doc. IATTC-89-04a, IATTC 89th Meeting (June 29-July 3, 2015), (Exhibit USA-14), Table A-7, for set numbers; and IATTC, EPO Dataset 2009-2013, (Exhibit USA-16), for the number of dolphins killed and injured in non-dolphin sets.

[560] Mexico's response to Panels' question No. 57.

[561] Table summarizing the data available regarding the relative overall risks of adverse effects on dolphins caused by different fishing methods in different ocean areas, (Exhibit MEX-95).

[562] IATTC, Tuna, Billfishes and Other Pelagic Species in the Eastern Pacific Ocean in 2014, Doc. IATTC-89-04a, IATTC 89th Meeting (June 29-July 3, 2015), (Exhibit USA-14).

[563] IATTC, EPO Dataset 2009-2013, (Exhibit USA-16).

However, the parties have not provided any specific evidence on the extent of dolphin interaction associated with this fishing method in this area of the ocean. Given the nature of this fishing method, where no interaction with dolphins is required in order to spot the tuna, coupled with the data presented in the table above that shows that, on average, mortalities occurred in less than 0.02% of the sets, we can reasonably conclude that purse seine vessels not setting on dolphins rarely interact with dolphins, if at all. We are mindful that, due to the significant and regular association between tuna and dolphins in the ETP, even purse seine fishing without setting on dolphins might end up, inadvertently, interacting with dolphins, perhaps even at a higher rate than purse seine fishing by setting on dolphins or other fishing methods in other areas of the ocean.[564] Nevertheless, none of the evidence on the record suggests that these interactions would rise to the level of those observed in purse seine fishing by setting on dolphins.

7.334. Accordingly, we consider that the extent of unobserved harms caused by purse seining without setting on dolphins in the ETP may be low, although, without direct evidence on the record on this particular matter, we are unable to base this finding on a precise quantification.

7.335. Finally, we note that neither party has argued or submitted evidence showing that purse seining without setting on dolphins in the ETP causes the kind of unobservable harms caused by setting on dolphins. In this connection, however, we note that the evidence does show that ETP large purse seine fishing without setting on dolphins does not involve the same level of interaction with dolphins as does large purse seine fishing by setting on dolphins. Indeed, as the sets in purse seine fishing without setting on dolphins do not require interaction with dolphins, we do not see how this fishing method could pose the same kinds of risks of unobservable harms to dolphins.

7.336. We now turn to assess the risk profile of purse seining without setting on dolphins in the Western and Central Pacific Ocean (WCPO).

7.337. The United States argues that, in 2010, observers reported 55 dolphin mortalities in 20,853 observed sets, that is, 2.64 dolphin mortalities per 1,000 sets. The United States contends that, on this basis, the WCPFC estimated that there were a total of 110 dolphin mortalities in the fishery as a whole in 2010. In 2014 and 2015, observers documented very low levels of dolphin mortalities, approximately 1.2 mortalities per 1,000 observed sets in 2014 and 2.2 dolphin mortalities per 1,000 observed sets in 2015. The United States also submits that 2007-2009 was the only period in which observers documented a mortality rate distinctly higher than that documented in the Atlantic and Indian Ocean purse seine fisheries and that in subsequent years, observers reported much lower levels.[565]

7.338. The United States also claims that in the WCPO purse seine fishery[566] between 2007 and 2009, observers reported that a dolphin interaction occurred in only 134 of the nearly 20,000 observed sets, that is, in only 0.7% of the sets observed. In 2010, only 37 of the 20,853 observed sets, or 0.18% of the sets observed, interacted with a dolphin.[567] The United States also asserts that, in 2008, observers on New Zealand purse seine vessels in the Western and Central Pacific Convention area observed 28% of all sets and reported no marine mammal interactions.[568]

7.339. In support of its arguments, the United States submits, in Exhibit USA-179 Rev., the following table, which summarizes, on a per set basis, the data presented in various pieces of evidence presented by the United States in the current proceedings regarding observable harms caused by purse seine fishing without setting on dolphins in the WCPO:[569]

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[564] In this respect, we note that large purse seine vessels in the ETP, including those that do not set on dolphins, at least in every set or voyage, are subject to the heightened certification and tracking and verification requirements discussed in Sections 7.8.3and 7.8.4above.

[565] United States' response to Panels' question No. 16.

[566] We note that in this regard, in its submissions, the United States refers to the "WCPFC purse seine fishery", and uses data from the Western and Central Pacific Fisheries Commission (WCPFC) to support its arguments on the risk profile of the WCPO.

[567] United States' first written submission, para. 55 (referring to Summary Information on Whale Shark and Cetacean Interactions in the Tropical WCPFC Purse Seine Fishery, Paper prepared by SPC-OFP, 8th Regular Session, Koror, Palau (November 2011), (Exhibit USA-17)).

[568] United States' first written submission, para. 55 (referring to WCPFC Scientific Committee, Fifth Regular Session Summary Report (2009), (Exhibit USA-18)).

[569] Although we refer to the WCPO, we are mindful that the data for this area of the ocean relates to the Western and Central Pacific Convention area, and is collected and processed by the WCPFC. We note that

United States' Summary of the Evidence						
Year		**Observed Sets**	**Dolphin Mortalities**	**Observed Serious Injury, Injury, or Released Alive**	**Mortality per 1,000 Sets**	**Source of Data**
2007-2009[570]		19,136	519	279 released alive	27.12	Observer Reports (15% coverage)
2010		20,853	55	89 released alive	2.64	Observer Reports (est. 40% coverage)
2013		Australia:[571] 0 dolphin mortalities; 0 dolphin injuries				Logbook Reports (100% coverage)
		Micronesia:[572] 0 dolphin mortalities; 0 dolphin injuries				Observer Reports (100% coverage)
		Japan:[573] 0 dolphin mortalities; 5 cetacean interactions where the cetacean was released alive				Logbooks Reports (100% coverage)
2014	**Overall**[574]	**25,760 (est.)**	**31**	1 serious injury	**1.2**	Observer Reports (46% coverage)
	Country Reports	China:[575] 9 dolphin mortalities; 5 dolphins caught and released alive				Observer Reports
		Micronesia:[576] 0 dolphin mortalities; 0 dolphin injuries				Observer Reports (100% coverage)
		Japan:[577] 0 dolphin mortalities; 5 cetacean interactions where the cetacean was released alive				Vessel Reports (100% coverage; observer onboard)
		Kirbati:[578] 0 dolphin mortalities; 0 dolphin injuries				Observer Reports (100% coverage)

according to Article 3 of the Western and Central Pacific Convention, the area of competence of the WCPFC comprises "all waters of the Pacific Ocean bounded to the south and to the east by the following line: From the south coast of Australia due south along the 141° meridian of east longitude to its intersection with the 55° parallel of south latitude; thence due east along the 55° parallel of south latitude to its intersection with the 150° meridian of east longitude; thence due south along the 150° meridian of east longitude to its intersection with the 60° parallel of south latitude; thence due east along the 60° parallel of south latitude to its intersection with the 130° meridian of west longitude; thence due north along the 130° meridian of west longitude to its intersection with the 4° parallel of south latitude; thence due west along the 4° parallel of south latitude to its intersection with the 150° meridian of west longitude; thence due north along the 150° meridian of west longitude". We understand that the Western and Central Pacific Convention area is a part of the WCPO.

[570] Summary Information on Whale Shark and Cetacean Interactions in the Tropical WCPFC Purse Seine Fishery, Paper prepared by SPC-OFP, 8th Regular Session, Koror, Palau (November 2011), (Exhibit USA-17), Tables 2a, 2b. We note that the United States' original reference was to Exhibit USA-58. However, this seems to have been a typo as this Exhibit does not refer to the cited information); Peter Williams & Peter Terawasi, WCPFC, Overview of Tuna Fisheries in the Western and Central Pacific Ocean, Including Economic Conditions – 2015 (August 30, 2016), (Exhibit USA-108), pp. 2, 55, total set figures for 2007-2009 and 2010.

[571] Australia, Annual Report to the Commission, WCPFC-SC10-AR/CMM-01 (July 2014) (Exhibit USA-33), pp. 12-13.

[572] Federated States of Micronesia, Annual Report to the Commission, WCPFC-SC10-AR/CCM-06 (August 2014), (Exhibit USA-34), p. 4.

[573] Japan, Annual Report to the Commission, WCPFC-SC10/AR/CCM-10 (July 2014), (Exhibit USA-35) p.5.

[574] WCPFC, 7th Annual Report for the Regional Observer Programme (September 3, 2015), (Exhibit USA-109), pp. 4-5, (dolphin mortalities and observer coverage); Peter Williams and Peter Terawasi, WCPFC, Overview of Tuna Fisheries in the Western and Central Pacific Ocean, Including Economic Conditions – 2015, (August 30, 2016), (Exhibit USA-108), pp. 2, 55 (total set figures for 2014).

[575] China, Annual Report to the Commission, WCPFC-SC11/AR/CMM-03 (August 2015), (Exhibit USA-184), p. 1 (coverage), p. 4 (catch), p. 15 (cetacean interactions).

[576] Federated States of Micronesia, Annual Report to the Commission, WCPFC-SC11-AR/CCM-06 (July 27, 2015), (Exhibit USA-27), p.4, 11, Annex I.

[577] Japan, Annual Report to the Commission, WCPFC-SC11/AR/CCM-10 (July 31, 2015), (Exhibit USA-29), pp. 5-7, 11, 13, 16.

[578] Kirbati, Annual Report to the Commission, WCPFC-SC11/AR/CCM-11(July 20, 2015), (Exhibit USA-36), pp. 3, 11 (observer coverage), p.16 (interactions).

United States' Summary of the Evidence						
Year		**Observed Sets**	**Dolphin Mortalities**	**Observed Serious Injury, Injury, or Released Alive**	**Mortality per 1,000 Sets**	**Source of Data**
		Korea:[579] 0 dolphin mortalities; 0 dolphin injuries				Vessel Reports (100% coverage; observer onboard)
		Marshall Islands:[580] 17 dolphin mortalities; 0 injuries; 18 status unknown				Observer Reports (100% coverage)
		Papua New Guinea:[581] 255 dolphin mortalities; 0 injuries documented; 8 status unknown				Observer Reports (100% coverage)
		Philippines:[582] 0 dolphin mortalities; 18 dolphin serious injuries				Observer Reports (100% coverage of HSP1)
		Solomon Islands:[583] 0 dolphin mortalities; 0 dolphin injuries				Observer Reports (100% coverage)
		Chinese Taipei:[584] 23 dolphin mortalities; 1 dolphin released alive				Vessel Reports (100% coverage;
		United States:[585] 13 cetacean interactions				Vessel Reports (100% coverage;
2015	**Overall**[586]	30,240 (est.)	66	84 released alive	2.2	Observer Reports (63% coverage)
	Country Reports	China:[587] 22 dolphin mortalities; 12 dolphins caught and released alive				Observer Reports (100% coverage)
		Micronesia:[588] 0 dolphin mortalities; 0 dolphin injuries				Observer Reports (100% coverage)
		Japan:[589] 1 dolphin mortality; 7 interactions where cetaceans were released alive				Vessel Reports (100% coverage; observer onboard)
		Kirbati:[590] 0 dolphin mortalities; 0 dolphin injuries				Observer Reports (100% coverage)
		Korea:[591] 0 dolphin mortalities; 0 dolphin injuries				Vessel Reports (100% coverage; observer onboard)
		Marshall Islands:[592] 16 dolphin mortalities; 4 dolphins released alive				Observer Reports (100% coverage)

[579] Korea, Annual Report to the Commission, WCPFC-SC11-AR/CCM-12 (August 30, 2015), (Exhibit USA-30), pp. 5, 10, 18-19.
[580] Marshall Islands, Annual Report to the Commission, WCPFC-SC11-AR/CCM-13 (August 2015), (Exhibit USA-185), pp. 1, 18.
[581] Papua New Guinea, Annual Report to the Commission, WCPFC-SC11-AR/CCM-19 (August 2015), (Exhibit MEX-23), pp. 5, 7.
[582] Philippines, Annual Report to the Commission, WCPFC-SC11/AR/CCM-20, (Exhibit USA-38) p. 10 (observer coverage), p.18 (interactions) (September 28, 2015).
[583] Solomon Islands, Annual Report to the Commission, WCPFC-SC11-AR/CCM-22(August 2015), (Exhibit USA-186), pp. 13, 27.
[584] Chinese Taipei, Annual Report to the Commission, WCPFC-SC11-AR/CCM-23 (November 3, 2015), (Exhibit USA-31), p. 15 (observer coverage), pp. 18-19 (interactions).
[585] United States, Annual Report to the Commission, WCPFC-SC11/AR/CCM-20 (July 31, 2015), (Exhibit USA-187), p. 3 (catch), p. 25 (observer), p. 26 (cetaceans).
[586] WCPFC, 8th Annual Report for the Regional Observer Programme, (Exhibit USA-110), pp. 2, 5-6 (September 14, 2016); Peter Williams and Peter Terawasi, WCPFC, Overview of Tuna Fisheries in the Western and Central Pacific Ocean, Including Economic Conditions – 2015 (August 30, 2016), (Exhibit USA-108), pp. 2, 55 (total set figures for 2014).
[587] China, Annual Report to the Commission, WCPFC-SC12-AR/CMM-03 (August 2016), (Exhibit USA-150), (catch) pp. 5, 15.
[588] Federated States of Micronesia, Annual Report to the Commission, WCPFC-SC11-AR/CCM-06 (September 21, 2016), (Exhibit USA-151), pp. 11, 16.
[589] Japan, Annual Report to the Commission, WCPFC-SC11/AR/CCM-10 (July 5, 2016), (Exhibit USA-152), p. 5.
[590] Kirbati, Annual Report to the Commission, WCPFC-SC11/AR/CCM-11 (September 23, 2016), (Exhibit USA-153), pp. 10, 15.
[591] Korea, Annual Report to the Commission (August. 29, 2016), (Exhibit USA-13), pp.3, 8-9.
[592] Marshall Islands, Annual Report to the Commission (August. 2016), (Exhibit USA-154), p. 15.

United States' Summary of the Evidence						
Year		**Observed Sets**	**Dolphin Mortalities**	**Observed Serious Injury, Injury, or Released Alive**	**Mortality per 1,000 Sets**	**Source of Data**
		Papua New Guinea:[593] 55 dolphin mortalities; 4 dolphins with fate unknown				Observer Reports (100% coverage)
		Philippines:[594] 0 dolphin mortalities, 7 dolphin serious injuries				Observer Reports (100% coverage of
		Solomon Islands:[595] 0 dolphin mortalities; 0 dolphin injuries				ObserverReports (100%coverage)
		Chinese Taipei:[596] 10 dolphin mortalities; 9 dolphins encircled and released alive				Vessel Reports (100% coverage; observer onboard)
		United States:[597] 8 cetacean interactions				Vessel Reports (100% coverage; observer onboard)

7.340. Mexico argues that the available data from the WCPO purse seine fishery indicates that dolphins are at significant risk, and that there is no reasonable basis to presume that they are not. Mexico contends that the United States cites the observer data from the WCPFC as if it were complete and relevant to assessing the risk profiles for purposes of the Tuna Measure. However, Mexico contends that the primary responsibility of observers in the WCPFC is to monitor the fish being harvested, not to watch for interactions with marine mammals[598], and that the observers do not report to the WCPFC, but to the individual island nations' program authorities. In Mexico's view, the United States has made no effort to adjust the data it submitted to take into account these types of factors.[599] Mexico argues that according to the US Department of Commerce:

> A common concern raised in the bycatch summary reports [from the WCOP fishery] is that the purpose of the observer program is to document operational compliance and record tuna catch composition data. Information on protected species interactions, such as turtle and whale species listed under the US ESA [Endangered Species Act] have been collected ancillary to other objectives of the program. In recent years, increasing emphasis has been placed on documenting interactions with marine mammals, turtles and sharks, however, the reliability and accuracy of the data have not been assessed.[600]

7.341. Mexico argues that the fact that WCPFC data is incomplete is confirmed by Exhibit MEX-116, a WCPFC report that shows that there is a significant time lag in providing data, and very uneven performance by nations in providing information.[601]

7.342. Mexico also notes that there is an inconsistency between the data reported in the 2014 and 2015 WCPFC reports and the individual country reports listed in the United States' chart because Exhibit USA-179 lists 31 mortalities in the WCPFC purse seine fishery in 2014, but the

[593] Papua New Guinea, Annual Report to the Commission, WCPFC-SC12/AR/CMM-19 (August 2016), (Exhibit USA-107), p. 20.
[594] Philippines, Annual Report to the Commission, WCPFC-SC11/AR/CCM-20 (July 2016), (Exhibit USA-105) pp. 9-10.
[595] Solomon Islands, Annual Report to the Commission (September 24, 2016), (Exhibits USA-155), p.26.
[596] Chinese Taipei, Annual Report to the Commission, WCPFC-SC11-AR/CCM-23 (August. 2016), (Exhibits USA-156) pp.11, 18-19.
[597] United States, Annual Report to the Commission, WCPFC-SC11/AR/CCM-20 (August. 2016), (Exhibits USA-157), p. 26.
[598] Mexico's comments on the United States' response to Panels' questions 16; second written submission, para. 81.
[599] Mexico's comments on the United States' response to Panels' questions 16.
[600] Mexico's comments on the United States' response to Panels' questions 16 (referring to National Marine Fisheries Service, Biological Opinion on the US WCPO Purse Seine Fishery (November 1, 2006), (Exhibit MEX-124), p. 124).
[601] Mexico's comments on the United States' response to Panels' questions 16 (referring to WCPFC, Status of ROP Data Management, WCPFC-TCC11-2015-IP05_rev1 (10 September 2015), (Exhibit MEX-116), p.7).

individual country reports to the WCPFC for 2014 that the United States shows in a separate part of the table total to 317 mortalities.[602]

7.343. In support of its position, Mexico submitted, through Exhibit MEX-95, the following table purporting to summarize its evidence on observable mortalities and serious injury in this fishery, although not on a per set basis:

Mexico's Evidence				
Fishery	**Year (as reported in cited documents)**	**Mortalities / Serious Injuries (MSI) as reported in cited documents)**	**In relation to PBR**	**Observer Coverage**
WCPFC Purse Seine (excluding Philippines and Indonesian domestic fleets)[603]	2009	1,195 (estimated by WCPFC)	Unknown	16% of fishing days
PNG Purse Seine[604]	2014	280	Unknown	100% (not trained to observe dolphin interactions)
Philippines (Sulu Sea), 5 purse seine vessels[605]	1994	1,500 to 2,250	Unknown	0%

7.344. The Panels begin their assessment by noting that, regarding the observable harms caused by purse seine fishery without setting on dolphins in the WCPO, the United States submitted evidence on a per set basis for the following periods: 2007-2009, 2010, 2014 and 2015. The data indicates that the initial level of dolphin mortalities between 2007 and 2009, which was 27.12 per 1,000 sets, dropped to 2.64 mortalities in 2010 and did not go up again afterwards. In 2015, the level of mortalities in this particular region was recorded as 2.2 per 1,000 sets. Regarding observed serious injury, we note that the period 2007-2009 presented a peak of 279 possible serious injuries to dolphins in 19,136 observed sets, followed by a possible 89 serious injuries in 20,853 observed sets in 2010, 1 observed serious injury in approximately 25,760 observed sets in 2014, and 84 serious injuries in 30,240 observed sets in 2015.

7.345. Mexico, for its part, has submitted evidence only for 2009, indicating an absolute number of 1,195 dolphin mortalities or serious injuries in the WCPO, without applying a per set methodology. Mexico has also presented data for the Papua New Guinea and the Philippines fisheries for 2014. We note that the United States also took into account these areas of the ocean in presenting its per set figures.

7.346. The evidence submitted by the parties in respect of purse seining without setting on dolphins in the WCPO is voluminous and complex. The disagreement between the parties on the interpretation of that evidence, however, seems to be focused on certain exhibits and issues.[606] In what follows, we will address each of these in turn.

7.347. First, the parties disagree about Exhibit USA-17. Mexico argues that the report contained in this exhibit supports the argument that dolphins are killed by purse seine nets in the WCPO,

[602] Mexico's comments on the United States' response to Panels' questions 16.

[603] Summary Information on Whale Shark and Cetacean Interactions in the Tropical WCPFC Purse Seine Fishery, Paper prepared by SPC-OFP, 8th Regular Session, Koror, Palau (November 2011), (Exhibit USA-17), p. 3.

[604] Papua New Guinea, Annual Report to the Commission, WCPFC-SC11-AR/CCM-19 (August 2015), (Exhibit MEX-23), p. 29.

[605] L. Dolar, Incidental Takes of Small Cetaceans in Fisheries in Palawan, Central Visayas and Northern Mindanao in the Philippines, in Report of International Whaling Commission (Special Issue 15) (1994), (Exhibit MEX-117), p. 358.

[606] We recall that as discussed in Section 7.7.1.2.1.6, we have already addressed some of Mexico's concerns regarding the data and evidence submitted by the United States on the WCPO.

with a very high rate (65%) when there is an interaction.[607] In Mexico's view, this high percentage demonstrates that purse seine vessels do not proactively seek to protect dolphins, do not have nets with dolphin safety design elements, and do not have or utilize the dolphin safety gear, procedures or specialized training for the captains or crews, which are mandatory in the ETP. Mexico also notes that the study itself states that no data from the domestic fisheries of Indonesia and the Philippines was included, and that the study only covers the area between 20º south and 20º north.[608] According to Mexico, this study shows that the fishery between 20º south and 20º north had 41,871 purse seine sets in 2010, that is, less than one half of the 90,000 to 100,000 purse seine sets per year undertaken in the entirety of the WCPO region.[609] Mexico thus submits that a projection for the fishery limited to the area between 20º south and 20º north significantly underestimates the real level of dolphin mortalities and serious injuries.

7.348. Mexico also contends that the United States seeks to focus on the lower mortality reported for 2010, but does not explain why the higher numbers for the 2007 to 2009 period should be disregarded, and in particular why it ignored the report's own estimated dolphin mortality figure of 1,195 for 2009.[610]

7.349. We note that, Exhibit USA-17 contains a summary of information on whale shark and cetacean interactions in the tropical WCPO purse seine fishery, prepared by the Secretariat of the Pacific Community-Oceanic Fisheries Programme of the WCPFC, in November 2011. We note that the paper defines its geographic coverage as follows:

> The data used in this paper comprise operational-level logsheet and observer data for the period 2007-2010 for purse seiners operating in the tropical (20^0N-20^0S) purse seine fishery. The domestic fisheries of Indonesia and the Philippines are excluded as key data are not available. It is assumed in the analyses that the currently processed observer data, representing 16% coverage of fishing days over the 2007-2009 period, and 45% coverage of fishing days in 2010, are representative of overall purse seine fishing operations during these periods.[611] (footnotes omitted)

7.350. Regarding the interaction with, and mortalities of, toothed cetaceans, the Exhibit states that:

> Interactions occurred across all of the common purse seine set types (Table 3a, b), but were more common in the associated set types (drifting and anchored FADs and logs). False killer whale (Figure 3a, b) and dolphin (Figure 4a, b) interactions have been observed widely throughout the WCPFC tropical purse seine fishery … Mortality rates were generally high (65% of interactions), with some reports indicating that they were not detected in the net early enough for release to be effected and had drowned. These interaction and mortality rates infer a total mortality of toothed cetaceans in the purse seine fishery in 2009 of 1,195 animals (Table 2a). In 2010, both the encounter and mortality rates were substantially lower than observed in the previous 3 years, leading to a much lower estimate of total mortality of toothed cetaceans of 110 (Table 2b).[612]

7.351. We thus note that, as argued by Mexico, the study has a limited geographic coverage and it reports the total number of mortalities of toothed cetaceans in the purse seine fishery in 2009 as 1,195.

7.352. That said, we are not persuaded by either of Mexico's arguments. Regarding the fact that the study shows that the fishery between 20º south and 20º north had 41,871 purse seine sets in

[607] Mexico's first written submission, (referring to Summary Information on Whale Shark and Cetacean Interactions in the Tropical WCPFC Purse Seine Fishery, Paper prepared by SPC-OFP, 8th Regular Session, Koror, Palau (November 2011), (Exhibit USA-17), para. 80).

[608] Mexico's first written submission, para. 80.

[609] Mexico's first written submission, para. 80.

[610] Mexico's first written submission, para. 81.

[611] Summary Information on Whale Shark and Cetacean Interactions in the Tropical WCPFC Purse Seine Fishery, Paper prepared by SPC-OFP, 8th Regular Session, Koror, Palau (November 2011), (Exhibit USA-17), p. 1.

[612] Summary Information on Whale Shark and Cetacean Interactions in the Tropical WCPFC Purse Seine Fishery, Paper prepared by SPC-OFP, 8th Regular Session, Koror, Palau (November 2011), (Exhibit USA-17), pp. 2-3.

2010, that is, less than one half of the 90,000 to 100,000 purse seine sets per year made in the entirety of the WCPO region, we note that the study clearly states the processed observer data are representative of overall purse seine fishing operations during these periods. There is otherwise no indication that such an extrapolation would be unreasonable or statistically flawed. In addition, we observe that the United States does not rely solely on this Exhibit in presenting its arguments regarding the WCPO. Exhibit USA-17 forms only part of the evidentiary basis for the United States' arguments concerning this particular fishery. Indeed, and as evidenced in the table above, the United States has presented data for more than 10 different sub-regions of the WCPO, and Exhibit USA-17 is but one of the pieces of evidence on which the table is based.

7.353. Similarly, the table presents data for a time period longer than just the 2007-2009 period, and it does not disregard Exhibit USA-17's own estimated dolphin mortality figure of 1,195 for 2009. In this connection, we note that although the study contained in Exhibit USA-17 mentions that it "infer[s] a total mortality of toothed cetaceans in the purse seine fishery in 2009 of 1,195 animals (Table 2a)"[613], these are absolute dolphin mortalities extrapolated from the per set numbers contained in Table 2a. In fact, when reviewing this table, it is clear that the data presented therein corresponds to the same per set data in the United States' table, that is, 27.12 mortalities per 1,000 sets.[614] We therefore reject both of Mexico's contentions regarding Exhibit USA-17.

7.354. Second, the parties disagree regarding Exhibit MEX-21. Mexico introduces this report because it contains the following statements referring to harms posed to dolphins:

> Spinner and Fraser's dolphins experience substantial bycatch in Philippine fisheries. In the Philippines, scientists estimated that about 2,000 dolphins—primarily spinner, pan-tropical spotted, and Fraser's—were being killed each year, probably at unsustainable levels, by a fleet of five tuna purse-seiners using fish-aggregating devices.[615]

7.355. In response, the United States argues that this study, which underlies the statistics presented by Mexico, is over two decades old and that it is refuted by more recent reports.[616] The United States also submits that Mexico's more recent Exhibit MEX-22, seems to revise down the old (1992) estimate of mortality to 500 dolphins per year and, with respect to the current fishery, it states only that sets "still have bycatch", with no suggestion that the level is comparable to what it was in the past.[617] The United States also refutes the data presented in Exhibit MEX-21 by arguing that recent data from the WCPFC confirms that the level of dolphin mortality in the WCPO purse seine fishery is much lower than in ETP dolphin sets (55 dolphin mortalities in 20,853 observed sets in the tropical purse seine fishery in 2010, compared to 1,169 observed mortalities in 11,645 observed dolphin sets in the ETP in the same year[618], and 765 mortalities in 11,010 observed dolphin sets in 2015).[619] The United States also contends that recent reports from the Philippines purse seine fishery in particular found, based on 100% observer coverage of the high seas fishery, that only 18 dolphins were killed in 2014[620] and 7 dolphins were killed in 2015.[621]

7.356. Exhibit MEX-21 contains a report on Worldwide Bycatch of Cetaceans, prepared by the US Department of Commerce in July 2007. We note that the the complete reference cited by Mexico reads as follows:

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[613] Summary Information on Whale Shark and Cetacean Interactions in the Tropical WCPFC Purse Seine Fishery, Paper prepared by SPC-OFP, 8th Regular Session, Koror, Palau (November 2011), (Exhibit USA-17), pp. 2-3.

[614] Summary Information on Whale Shark and Cetacean Interactions in the Tropical WCPFC Purse Seine Fishery, Paper prepared by SPC-OFP, 8th Regular Session, Koror, Palau (November 2011), (Exhibit USA-17),

[615] Mexico's first written submission, para. 74.

[616] United States' second written submission, para. 84.

[617] United States' second written submission, para. 84.

[618] United States' second written submission, para. 84.

[619] United States' second written submission, para. 84 (referring to IATTC, Fishery Status Report No. 14 (2016), (Exhibit MEX-06)).

[620] United States' second written submission, paras. 86-87 (referring to Philippines, Annual Report to the Commission, WCPFC-SC11/AR/CCM-20 (September 28, 2015), (Exhibit USA-38)).

[621] United States' second written submission, paras. 86-87 (referring to Philippines, Annual Report to the Commission, WCPFC SC12-AR/CCM-20 (June 2016), (Exhibit USA-105)).

> Roughly 1,700 bottlenose dolphins and 1,000 spinner dolphins are incidentally caught at unsustainable levels in gillnet, driftnet, and purse-seine fisheries in the western central Pacific off the coast of Australia. Perhaps 5 to 50 percent of the population of Indo-Pacific humpback dolphins are incidentally captured in offshore driftnets and in inshore gillnets set to protect bathers from sharks north of Brisbane Australian and along the central section of the Great Barrier Reef. However, because poor population and bycatch estimates these percentages are suspect.
>
> Spinner and Fraser's dolphins experience substantial bycatch in Philippine fisheries. In the Philippines, scientists estimated that about 2,000 dolphins—primarily spinner, pan-tropical spotted, and Fraser's—were being killed each year, probably at unsustainable levels, by a fleet of five tuna purse-seiners using fish-aggregating devices. Scientists estimate that even more cetaceans may be caught in round-haul nets; one estimate for the eastern Sulu Sea was 2,000–3,000 per year. Directed fisheries for small cetaceans were also reported, with as many as 200–300 dolphins caught annually in San Francisco and smaller numbers caught for bait in shark and chambered nautilus (Nautilus pompilius) fisheries in Palawan. Currently there are no total bycatch estimates for the Philippines, but preliminary analyses of cetacean abundance surveys indicate that current bycatch is not sustainable.[622] (footnotes omitted.)

7.357. We note that although the report is from July 2007, the source of the underlying dataset is a report from 1994. To us, this suggests that these conclusions need to be contrasted with more recent data, if available, to confirm whether the situation in 1994 still exists. In this connection, we note that the United States has presented reports for the Philippines from 2014 and 2015, as summarized in the table presented by the United States. That table seems to show a different picture of the risks posed to dolphins, in particular, that dolphin mortality caused by purse seine fishing without setting on dolphins has decreased significantly in this area of the ocean. We therefore find no merit in Mexico's arguments regarding Exhibit MEX-21.

7.358. Third, the parties disagree about Exhibit MEX-22. Mexico contends that this recent report states that in a Philippines fishery, purse seine nets are deployed at night with lights to attract tuna, and this results in substantial dolphin bycatch. In the United States' view, Mexico argues that the Panels should rely on anecdotal reports from the early 1990s.[623]

7.359. We note that Exhibit MEX-22 contains a report of the Third Southeast Asian Marine Mammal Symposium, CMS Technical Series No. 32 (2015) Convention on Migratory Species. It contains the following exchange:

> Peter Thomas: About purse seines at night, what evidence exists as to entanglement and capture?
>
> Response (Louella Dolar): … For tuna boats with lights, based on interviews in 1992, it was estimated that 500 dolphins were killed/year based on 2 months of observation. In 2012, 4 purse seines that use intense light still have bycatch.[624]

7.360. In our view, Exhibit MEX-22 suffers from the same flaws present in Exhibit MEX-21, namely, that the sources of the underlying data are interviews from 1992. Thus, this conclusion needs to be compared with the more recent data presented by the United States. Also, the fact that in 2012 four purse seines that use intense light still have bycatch does not conflict with the

[622] Young and Iudicello, Worldwide Bycatch of Cetaceans, US Department of Commerce, NOAA Tech. Memo. NMFS-OPR-36 (July 2007), (Exhibit MEX-21), pp. 112-113.

[623] L. Dolar, Incidental Takes of Small Cetaceans in Fisheries in Palawan, Central Visayas and Northern Mindanao in the Philippines, in Report of International Whaling Commission (Special Issue 15) (1994), (Exhibit MEX-117), p. 355 (explaining that information was conducted "opportunistically" from "fishermen and other knowledgeable local people"). According to the United States' comments on Mexico's response to Panels' question No. 57, it is also notable that the author clarified that the vessels in the paper were *not* producing for the global tuna product market but "for local markets". See p. 357 (referring to Convention on Migratory Species, Report of the Third Southeast Asian Marine Mammal Symposium (2015), (Exhibit MEX-22), p. 83 (quoting the author of the 1994 paper referring to "interviews in 1992" and seeming to revise the earlier estimate from 2,000 to 500 dolphin mortalities per year); US Second Written Submission, para. 84.

[624] Convention on Migratory Species, Report of the Third Southeast Asian Marine Mammal Symposium, CMS Technical Series No. 32 (2015), (Exhibit MEX-22), p. 83.

more recent data in the Philippines Annual Report to the Commission, presented in Exhibit USA-105, as the former statements in Exhibit MEX-22 do not quantify the amount of the bycatch in this area of the ocean; they only introduce a qualitative indicator of bycatch for these four purse seine vessels. We therefore disagree with Mexico's arguments regarding Exhibit MEX-22.

7.361. Finally, we turn to Mexico's arguments regarding the reliability of observers' reports in this region, explained in para. 7.340 above. We recall that Mexico contends that the United States cites the observer data from the WCPFC as if it were complete and relevant to assessing the risk profiles for purposes of the Tuna Measure.

7.362. We note that Mexico itself has not suggested any particular methodology according to which the United States should have adjusted the data it submitted to take account of these sampling issues. To the extent that Mexico argues that WCPFC reports are inherently unreliable, at least for purposes of these proceedings, we disagree.

7.363. Regarding Mexico's contention regarding the primary responsibility of observers in the WCPFC[625], we are of the view that, even if the primary responsibility of observers in the WCPFC is to monitor the harvesting of fish and not to report on interactions with marine mammals, this does not necessarily render their reports unreliable or irrelevant to our assessment of marine mammal bycatch or harms posed to dolphins by purse seine fishing without setting on dolphins in the WCPO. Indeed, the fact that observers do make reports concerning bycatch indicates that their task involves monitoring bycatch, even if they are also charged with other responsibilities. Our view in this regard is supported by the fact that such information is routinely used by the WCPFC in its assessment of the situation in the fisheries under its purview. Additionally, and as we have previously stated, RMFOs, like the WCPFC, are experts in the field of marine resources conservation. It may be that the information from these observers is not always perfect in all regards. However, in our view this is the best available scientific evidence provided by the parties, and we see no reason to disregard it for the reasons identified by Mexico.

7.364. For the foregoing reasons, we reject Mexico's contention regarding observers, and find that, given that the source of the data in the table presented by the United States is mainly from an RFMO, namely, the WCPFC, and given that in our view RFMOs are experts in this field, we consider it appropriate to rely on this data in making our findings on observable harms caused by purse seine fishing without setting on dolphins in the WCPO.

7.365. Consequently, with regard to observable harms, we find that the data shows that the per set mortalities of dolphins as a consequence of purse seine fishing without setting on dolphins in the WCPO was 2.64, 1.2 and 2.2 per 1,000 sets in 2010, 2014 and 2015, respectively. We also find that in the period 2007-2009, the data shows that the average per set mortalities of dolphins were significantly higher, namely, 27.12 mortalities per 1,000 sets. We also find that there were 279 dolphins were released alive in the period 2007-2009, 89 in 2010 and 84 in 2015; and that in 2014 one dolphin was seriously injured.

7.366. Regarding observable but unobserved harms, we begin by noting that neither party has submitted evidence on the extent of unobserved harms arising from purse seine fishing without setting on dolphins in the WCPO. We recall, as stated above, that the frequency of dolphin interactions might serve as a proxy for assessing unobserved harms, since the extent of dolphin interactions represents the maximum possible number of mortalities and serious injuries. The United States has submitted, through Exhibit USA-179 Rev., the following information, on a per set basis, on the extent of dolphin interactions associated with purse seine fishing without setting on dolphins in the WCPO:

[625] Mexico's comments on the United States' response to Panels' question No. 16; second written submission, para. 81.

United States' Summary of the Evidence								
Year	**Observed Sets**	**Positive Sets**	**% Positive Sets**	**Dolphins Chased**	**Dolphins Encircled**	**Dolphin Mortalities**	**Interactions Per 1,000 Sets**	**Mortalities Per 1,000 Sets**
2007-2009	19,136	134	0.70%	no evidence of any	798 (interactions)	519	41.70	27.23
2010	20,853	37	0.18%	no evidence of any	144 (interactions)	55	6.91	2.64
2014	25,760 (est.)	309 (maximum possible)	1.51%	no evidence of any	350 (interactions)	31	13.59	1.2

7.367. The data in the table shows that in all of the three different time periods covered by the table, the percentage of sets where any interaction with dolphins was registered is below 2%, being as low as 0.18% in 2010. In per set terms, we note that the level of dolphin interactions per 1,000 sets varied between 41.70 in the period 2007-2009, 6.91 in 2010 and 13.59 in 2014. To us, this indicates that the level of dolphin interaction is low in this area of the ocean and that therefore there is a very low likelihood of unobserved harm caused to dolphins.

7.368. Finally, we note that the neither party has presented evidence that purse seining without setting on dolphins in the WCPO causes unobservable harms of the kind caused by setting on dolphins. In response to a question from the Panels, Mexico argued that

> In areas where FAD fishing interacts with dolphins with no supervision of dolphin safety precautions, such as in the Western and Central Pacific, it should be presumed that there are also unobservable harms, similar to those the United States presumes exist in the ETP. In particular, outside the ETP, there are no mandatory procedures for protecting dolphins when they are being released from nets or hooks. Under those circumstances the dolphins may suffer much greater stress and risk of physical harm than the United States claims they experience in the ETP.[626]

7.369. However, Mexico has presented no evidence to support this proposition. Moreover, as we have explained, our conclusion concerning the existence of unobservable harms in the ETP large purse seine fishery is not based on an assumption, but rather on a close examination of significant evidence collected over nearly two decades.

7.370. On this basis, we find that the record evidence does not show that purse seine fishing without setting on dolphins in the WCPO causes the kinds of unobservable harms caused by purse seine fishing by setting on dolphins in the ETP.

7.371. We now proceed to the assessment of the risk profile of purse seining without setting on dolphins in the Indian Ocean.

7.372. The United States claims that in the European purse seine fishery in the tropical Indian Ocean, less than 1% of the 3,052 sets observed involved any marine mammal interaction, and no marine mammals were encircled or caught.[627] The United States also contends that an earlier study of tuna seiners in the Western Indian Ocean (WIO) supports the findings of this study, concluding that in "offshore regions of the WIO tuna-dolphin associations are rare, purse seining for them is not practiced, and there is no dolphin bycatch problem".[628]

7.373. The United States submitted, through Exhibit USA-179 Rev., data on the European purse seine fishery in the tropical Indian Ocean for the period 1995 - 2009, on a per-set basis, as reproduced below:

[626] Mexico's response to Panels' question No. 68, para. 45.
[627] United States' first written submission, (referring to Monin J. Amande et al., Precision in Bycatch Estimates: The Case of Tuna Purse Seine Fisheries in the Indian Ocean, ICES J. Mar. Sci. (2012), (Exhibit USA-21), para. 55).
[628] United States' first written submission, fn. 84 (referring to Evgeny V. Romanov, Bycatch in the Tuna Purse Seine Fisheries of the Western Indian Ocean, 100 Fisheries Bulletin 90 (2002), (Exhibit USA-9)).

United States' Summary of the Evidence						
Fishery	**Year**	**Observed Sets**	**Observed Mortality**	**Observed Serious Injury, Injury, or Released Alive**	**Mortality per 1,000 Sets**	**Source of Data**
EU Indian Ocean Tropical Purse Seine	1995-2011[629]	6,129	2 cetaceans (maximum possible)	37 cetaceans released alive	0.33	Observer Reports (7.8% of vessel activities)
	2003-2009[630]	3,052	0	None documented	0.00	Observer Reports (4.6% coverage)

7.374. The United States submits that according to one study, examining the period 1995-2011, and which is reflected in the table above, the dolphin mortality rate as resulting from purse seine fishing without setting on dolphins was significantly low, namely, 0.33 per 1,000 sets in this particular period.

7.375. Mexico disagrees with the figures presented by the United States. It contends that one of the studies on which the above table relies was limited to a small sampling of French and Spanish purse seine vessels.[631] Regarding an earlier study mentioned by the United States, Mexico contends that such study was based on data collected by observers on several Soviet purse seine vessels during 1986 to 1992, involving only 492 sets.[632]

7.376. We note that Mexico itself has not introduced any evidence regarding observable or unobservable harms to dolphins caused by purse seine fishing without setting on dolphins in the Indian Ocean.

7.377. Regarding Mexico's arguments, we note that Exhibit USA-9 contains a study of bycatch in the tuna purse seine fisheries of the Western Indian Ocean, from 2002, and that it states that "Bycatch assessments were based on data collected by Yug-NIRO scientific observers aboard Soviet (since 1992—Russian) tuna purse seiners in the WIO, during 1987, and 1990–91. The vessels were the 'Rodina' type. In addition, observer data collected in the same area aboard sister-ships by AtlantNIRO and 'Zaprybpromrazvedka' during 1986–90 and data by TINRO and TURNIF during 1990 and 1992 were used. The fishing vessels all used purse seines of 1800 m in length, 250–280 m in depth, and 90–100 mm mesh size in the bunt".[633] We agree with Mexico that the data in Exhibit USA-9 seems to be outdated and therefore the conclusions from this study should be checked against more recent data, if available, to confirm whether the situation described in the study continues to exist.

7.378. However, we note that in the table above, the United States uses data from sources other than Exhibit USA-9. In fact, the table presents data from Exhibit USA-145, containing a 2015 study conducted by Lauriane Escalle et al., entitled "Cetaceans and Tuna Purse Seine Fisheries in the Atlantic and Indian Oceans: Interactions but Few Mortalities", and from Exhibit USA-21, containing a 2012 study by Monin J. Amande et al., entitled "Precision in Bycatch Estimates: The Case of Tuna Purse Seine Fisheries in the Indian Ocean". Accordingly, as the United States has relied on other pieces of evidence apart from the study contained in Exhibit USA-9, we find Mexico's criticism to be inapposite.

7.379. Regarding Mexico's arguments on Exhibit USA-21, and in particular Mexico's contention that the study on which the United States relies for its assertion that there are no dolphin mortalities in the Indian Ocean was limited to a small sampling of French and Spanish purse seine vessels[634], we note that the mentioned exhibit contains an "analysis focuse[d] on the European

[629] Lauriane Escalle et al., Cetaceans and Tuna Purse Seine Fisheries in the Atlantic and Indian Oceans: Interactions but Few Mortalities, 522 Mar. Ecol. Prog. Ser. (2015), (Exhibit USA-145), pp.255, 257, 260, showing that at least 37 of the 39 cetaceans encircled were released alive.

[630] Monin J. Amande et al., Precision in Bycatch Estimates: The Case of Tuna Purse Seine Fisheries in the Indian Ocean, ICES J. Mar. Sci. (2012), (Exhibit USA-21), pp. 2-3, and 6.

[631] Mexico's first written submission, para. 82.

[632] Mexico's first written submission, para. 83.

[633] Evgeny V. Romanov, Bycatch in the Tuna Purse Seine Fisheries of the Western Indian Ocean, 100 Fisheries Bulletin 90 (2002), (Exhibit USA-09), p. 91 (footnotes omitted).

[634] Mexico's first written submission, para. 82.

purse-seine fishery in the Indian Ocean (IO) to address the major issue of estimating fishery removals of non-target, associated, and dependent species".[635] The exhibit contains data that was "collected during the European observer programme since 2003" in order to:

> (i) estimate the annual bycatch for marine pelagic taxonomic groups and species of the European purse-seine fishery in the IO, based on simple raising procedures; (ii) analyse the relative error and bias of the bycatch estimates as a function of sampling coverage and of two indices describing the species bycatch statistical distribution and finally (iii) provide guidelines into the levels of observer coverage required to accurately and precisely estimate species bycatch so as to reconcile current sampling strategies with the sustainable management and conservation objectives promoted by tuna RFMOs.[636]

7.380. We also note that, regarding the bycatch in the tuna purse-seine fishery, the Exhibit states that bycatch of "[m]arine mammals occurred in less than 1% of the observed sets and were always released alive without being brought on board the vessel, resulting in no direct mortality due to the impact of the purse-seine operations. Turtles were also generally discarded alive, but no specific action was conducted to collect information on the survival rates of the released animals".[637]

7.381. In our view, the sampling technique used in this study does not detract from the general conclusions that it reaches. We agree with the United States that national regulators, RFMOs, and scientists around the world use the methodology of extrapolating data from a subset of fishing operations in a fishery to give an overall picture of that fishery, and we note that numerous exhibits on the record offer examples of studies using this methodology.[638] In this regard, we do not believe that using a sample consisting of only French and Spanish purse seine vessels to reach general conclusions undermines the reliability of the results reached in the studies. Indeed, as noted by the United States[639], the data on the Indian Ocean purse seine fishery supporting this study was sufficient for the authors to generate annual bycatch estimates, with 95% confidence intervals, for all the "major taxonomic groups and species" for which there was bycatch,[640] as well

[635] Monin J. Amande et al., Precision in Bycatch Estimates: The Case of Tuna Purse Seine Fisheries in the Indian Ocean, ICES J. Mar. Sci. (2012), (Exhibit USA-21), p. 2.

[636] Monin J. Amande et al., Precision in Bycatch Estimates: The Case of Tuna Purse Seine Fisheries in the Indian Ocean, ICES J. Mar. Sci. (2012), (Exhibit USA-21), p. 2.

[637] Monin J. Amande et al., Precision in Bycatch Estimates: The Case of Tuna Purse Seine Fisheries in the Indian Ocean, ICES J. Mar. Sci. (2012) (Exhibit USA-21), p. 6.

[638] United States' response to Panels' question No. 95 (referring to William A. Karp, Lisa L. Desfosse, and Samantha G. Brooke (eds.), NMFS, US National Bycatch Report, at 391, Table 4.6.C.1 and 394, Table 4.6.D.1 (2011), (Exhibit USA-61), pp. 391, Table 4.6.C.1 and 394, Table 4.6.D.1); US National Bycatch Report First Edition Update, (Exhibit USA-62), Table 8.3; US National Bycatch Report First Edition Update, (Exhibit USA-63), ; NMFS, False Killer Whale: Hawaiian Islands Stock Complex (January 8, 2013), (Exhibit USA-113) p. 267), Table 8.4; NMFS, False Killer Whale: Hawaiian Islands Stock Complex (December 31, 2015), (Exhibits USA-114, MEX-118), pp. 284-285; Karin A. Forney, SFSC, Estimates of Cetacean Mortality and Injury in Two US Pacific Longline Fisheries, 1994-2002 (2004), (Exhibit USA-118), p. 14; AIDCP, Report on the International Dolphin Conservation Program, Document MOP-28-05 (October 18, 2013), (Exhibit MEX-08), Table 3; Summary Information on Whale Shark and Cetacean Interactions in the Tropical WCPFC Purse Seine Fishery, Paper prepared by SPC-OFP, 8th Regular Session, Koror, Palau (November 2011), (Exhibit USA-17), pp.5-6; Monin J. Amande et al., Bycatch of the European Purse Seine Tuna Fishery in the Atlantic Ocean for the 2003-2007 Period, 23 Aquat. Living Resour. 353 (2010), (Exh. USA-19), p. 358; Monin J. Amande et al., Bycatch and Discards of the European Purse Seine Tuna Fishery in the Atlantic Ocean: Estimation and Characteristics for 2008 and 2009, 66 ICCAT Collect. Vol. Sci. Papers 2113 (2011), (Exhibit USA-20), p. 2120; Monin J. Amande et al., Precision in Bycatch Estimates: The Case of Tuna Purse Seine Fisheries in the Indian Ocean, ICES J. Mar. Sci. (2012), (Exhibit USA-21), pp. 5-6; Hernandez-Milian et al., Results of a Short Study of Interactions of Cetaceans and Longline Fisheries in Atlantic Waters, 612 Hydrobiologia 254 (2008), (Exhibit USA-40), p. 264; Hsiang-Wen Huang, Bycatch of High Sea Longline Fisheries and Measures Taken by Taiwan: Actions and Challenges, 35 Mar. Pol'y 712 (2011), (Exhibit USA-127), p. 715; Japan, Annual Report to the Commission, WCPFC-SC12/AR/CMM-10 (July 5, 2016), (Exhibit USA-152), p.38; Alison McCarthy et al., Pilot Observer Programme in Irish Pelagic Trawl and Gillnet Fisheries: Implementing Council Regulation (EC) No 812/2004 (2011), (Exhibit USA-163), pp.1-2.

[639] United States' response to Panels' question No. 95.

[640] Monin J. Amande et al., Precision in Bycatch Estimates: The Case of Tuna Purse Seine Fisheries in the Indian Ocean, ICES J. Mar. Sci. (2012), (Exhibit USA-21), pp. 5-6.

as to conclude that "the magnitude of bycatch in tropical tuna purse seine fisheries is small."[641] We therefore disagree with Mexico's arguments in this respect.

7.382. Further, as noted above, and as underlined by the Appellate Body in the first compliance proceedings[642], collection and assessment of data regarding such harms is generally very difficult. In our view, a study does not necessarily need to meet a pre-established sampling threshold for it to be taken into account by a WTO panel. With respect to the Exhibits at issue here, we consider that the fact that these are scientific studies published in a peer reviewed journal suggests that their results may be deemed to provide an adequate assessment of the risks to dolphins. We also note that Mexico itself has not provided alternative evidence that we could have used in assessing the observable harms caused to dolphins by purse seine fishing without setting on dolphins in the Indian Ocean.

7.383. For the foregoing reasons, and given the scientific nature of the data in the table presented by the United States, we consider it appropriate to rely on this data in assessing the extent of observable harms to dolphins caused by purse seine fishing without setting on dolphins in the Indian Ocean. We thus find that dolphin mortalities caused by purse seine fishing without setting on dolphins in the Indian Ocean are very low, with a peak of 0.33 mortalities per 1,000 sets, reported for the period 1995-2011.

7.384. Regarding unobserved harms, we note that the parties have submitted no evidence for this type of harm in this particular area of the ocean for purse seine fishing without setting on dolphins. We recall nonetheless that the frequency of dolphin interactions might serve as a proxy to assess unobserved harms, since the extent of dolphin interactions represents the maximum possible number of mortalities and serious injuries. In this regard, we note that, through Exhibit USA-179 Rev., the United States has submitted the following information, on a per set basis, on the extent of dolphin interactions in the Indian Ocean:

United States' Summary of the Evidence								
Fishery	**Year**	**Observed Sets**	**Positive Sets**	**Dolphins Chased**	**Dolphins Encircled**	**Dolphin Mortalities**	**Interactions Per 1,000 Sets**	**Mortalities Per 1,000 Sets**
Indian Ocean Tropical Purse Seine[643]	2003 - 2009	3,052	unknown (fewer than 30)	no evidence of any	unknown	0	fewer than 10	0
	1995 - 2011	6,129	183	no evidence of any	39	2 (maximum possible)	6.36	0.00

7.385. The data presented by the United States shows that observed interactions were 6.36 per 1000 sets in the period 1995 - 2011, and fewer than 10 per 3,052 sets (3.28 per 1,000 sets) in the period 2003-2009. This low level of dolphin interactions suggests that the extent of unobserved mortality and serious injury is likely to be low, if anything.

7.386. Finally, we note that neither party has argued or provided evidence that purse seining without setting on dolphins in the Indian Ocean causes unobservable harms similar to those caused by setting on dolphins in the ETP.

7.387. We now turn to assess the evidence concerning purse seine fishing without setting on dolphins in the Eastern Tropical Atlantic Ocean (ETAO).

7.388. The United States argues that a study of vessels engaging in unassociated and floating object sets between 2003 and 2007 in the European purse seine fishery in the Atlantic Ocean

[641] Monin J. Amande et al., Precision in Bycatch Estimates: The Case of Tuna Purse Seine Fisheries in the Indian Ocean, ICES J. Mar. Sci. (2012), (Exhibit USA-21), p. 8.

[642] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.252.

[643] Monin J. Amande et al., Precision in Bycatch Estimates: The Case of Tuna Purse Seine Fisheries in the Indian Ocean, ICES J. Mar. Sci. (2012), (Exhibit USA-21) pp. 2-3, 6; Lauriane Escalle et al., Cetaceans and Tuna Purse Seine Fisheries in the Atlantic and Indian Oceans: Interactions but Few Mortalities, 522 Mar. Ecol. Prog. Ser., (Exhibit USA-145), pp. 255, 257, 260.

recorded only two "catch events" of marine mammals, both involving baleen whales[644], and that the update for 2008-2009 covered 27 trips (791 sets) and recorded no interactions at all with marine mammals, including dolphins.[645]

7.389. In addition, through Exhibit USA-179 Rev., the United States submitted evidence, on a per set basis, of observable harms for the period between 1995 and 2009, as reproduced below:

Fishery	Year	Observed Sets	Observed Mortality	Observed Serious Injury, Injury, or Released Alive	Mortality per 1,000 Sets	Source of Data
Eastern Tropical Atlantic Purse Seine (EU)	1995-2011[646]	9,969	13 cetaceans (maximum possible)	142 cetaceans released alive	1.30	Observer Reports (9.2% of vessel activities)
	2013[647]	827	0	1	0.00	Observer Reports (41% coverage of French vessels)
	2003-2007[648]	598	0	2 released alive	0.00	Observer Reports (2-6% coverage)
	2008-2009[649]	791	0	0	0.00	Observer Reports (7-9% coverage)

7.390. We note that of the four periods covered in the table, three had zero mortality, and the period 1995-2011 had only 1.30 mortalities per 1,000 sets. Similarly, the level of potential serious injuries reported is also very low: 142 cetaceans released alive in the 1995-2011 period, and 2 in the 2003-2007 period.

7.391. We note that Mexico has not presented any evidence on the level of dolphin mortalities or serious injuries resulting from purse seine fishery without setting on dolphins in the Eastern Tropical Atlantic Ocean. Mexico, however, challenges the probative value of some of the evidence presented by the United States. In particular, Mexico argues that the study presented in Exhibit USA-19 is limited to a small sampling of French and Spanish vessels[650] and that the update of this study, presented in Exhibit USA-20, was based on observer data "collected during 13 trips and 19 trips in 2008 and 2009, respectively corresponding to 6.7% and 8.5% of total trips, respectively".[651] Mexico contends that those are percentages for the French and Spanish fleets, not the other countries that fish in the Atlantic.[652] For Mexico, these studies are based on a statistically invalid percentage of Spanish and French vessel fishing trips, and do not provide any information at all on the vessels of other countries.[653]

7.392. We note that Exhibit USA-19 contains a study titled "Bycatch of the European Purse Seine Tuna Fishery in the Atlantic Ocean for the 2003-2007 Period" from 2010. We recall that the United States argues that according to this exhibit, in the Eastern Tropical Atlantic purse seine fishery, observers on European vessels documented zero cetacean interactions in 1,389 observed sets between 2003 and 2009.[654] We also note that the data used in the study was collected by observers over the course of 27 trips, corresponding to 598 sets in the Atlantic Ocean (latitude

[644] United States' first written submission, para. 44.
[645] United States' first written submission, para. 44.
[646] Lauriane Escalle et al., Cetaceans and Tuna Purse Seine Fisheries in the Atlantic and Indian Oceans: Interactions but Few Mortalities, 522 Mar. Ecol. Prog. Ser., (Exhibit USA-145), pp. 255, 257, 260.
[647] Emmanuel Chassot et al., Statistics of the French Purse Seine Fishing Fleet Targeting Tropical Tunas in the Atlantic Ocean (1991-2013), 71 ICCAT Collect. Vol. Sci. Papers (2015), (Exhibit USA-191), pp. 540, 542, Table 17.
[648] Monin J. Amande et al., Bycatch of the European Purse Seine Tuna Fishery in the Atlantic Ocean for the 2003-2007 Period, 23 Aquat. Living Resour. 353 (2010), (Exhibit USA-19), pp. 353, 355-58.
[649] Monin J. Amande et al., Bycatch and Discards of the European Purse Seine Tuna Fishery in the Atlantic Ocean: Estimation and Characteristics for 2008 and 2009, 66 ICCAT Collect. Vol. Sci. Papers 2113, (2011), (Exhibit USA-20), pp. 2113, 2114-18.
[650] Mexico's first written submission, para. 84.
[651] Mexico's first written submission, para. 85.
[652] Mexico's first written submission, para. 85.
[653] Mexico's first written submission, para. 86.
[654] United States' first written submission, para. 55.

between 10◦S and 15◦N and longitude from 35◦W to the African coast) over the 2003–2007 period. The overall coverage rate reached 2.9% of the total number of trips, and increased from 1.5% in 2003 to 6.5% in 2007. The sample included observations made on 301 free school sets and 297 log-school sets.[655]

7.393. The study reports only two events of catch of marine mammals, but none of those involve dolphins:

> Only two catch events of marine mammals were reported by observers. It occurred during the third quarter period (August and September) and involved free school sets. One event involved a fin whale, *Balaenoptera physalus*, and the second event involved two humpback whales, *Megaptera novaeangliae*. All individuals were released alive without being brought on board the vessel. The rarity of these observations impeded any attempt to extrapolate bycatch figures for marine mammals at the fishery level.[656]

7.394. Exhibit USA-20 contains a 2011 study titled "Bycatch and Discards of the European Purse Seine Tuna Fishery in the Atlantic Ocean: Estimation and Characteristics for 2008 and 2009". It provides an update of the study presented in Exhibit USA-19. We note that the data used in the study in Exhibit USA-20 was sampled from Spanish and French purse seine fishery data (i.e., logbook, well maps, and landing data), and that observers' data collected within the framework of the DCF programme for 2008 and 2009 were used to update the estimates of bycatch of the European tuna purse seine fishery in the Atlantic Ocean.[657]

7.395. Similar to our analysis of Exhibit USA-21, in paras. 7.379-7.382 above, we are not persuaded by Mexico's argument that the fact that the studies presented in these exhibits are based on limited sampling of French and Spanish vessels[658] or that the subsequent updated study was based on limited observer data[659], undermines the importance of their conclusions. As noted above, we do not consider the fact that a study regarding bycatch from a particular tuna fishing method is based on a subset of the relevant area of the ocean, or of the fleets fishing in that area, to undermine the probative value of the study for purposes of WTO dispute settlement proceedings. On the contrary, we note that the datasets in Exhibits USA-19 and USA-20 were sufficient for the reports to generate scientifically significant bycatch estimates, including 95% confidence intervals for those estimates, for all the species for which there was bycatch in the dataset.[660] Indeed, Exhibit USA-19 confirms specifically that the data that it contains reflects "acceptable observation levels".[661]

7.396. In these circumstances, we find it appropriate to base our finding on the studies presented in the exhibits that form the basis for the table presented by the United States. We thus find that, of the four periods covered in the table, three had zero mortality, and the period 1995-2011 had only 1.30 mortalities per 1,000 sets. Similarly, the level of potential serious injuries reported is also very low: 142 cetaceans released alive in the 1995-2011 period, and 2 in the 2003-2007 period.

7.397. Regarding unobserved harms, we observe that none of the parties have submitted evidence regarding the possible extent of unobserved mortality and serious injury. Nonetheless, as stated above, we consider that the frequency of dolphin interactions might serve as a proxy to assess unobservable harms, since the extent of dolphin interactions represents the maximum possible number of mortalities and serious injuries. We note the following evidence on the record,

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[655] Monin J. Amande et al., Bycatch of the European Purse Seine Tuna Fishery in the Atlantic Ocean for the 2003-2007 Period, 23 Aquat. Living Resour. 353 (2010), (Exhibit USA-19), p. 355.

[656] Monin J. Amande et al., Bycatch of the European Purse Seine Tuna Fishery in the Atlantic Ocean for the 2003-2007 Period, 23 Aquat. Living Resour. 353 (2010), (Exhibit USA-19), p. 358.

[657] See Monin J. Amande et al., Bycatch and Discards of the European Purse Seine Tuna Fishery in the Atlantic Ocean: Estimation and Characteristics for 2008 and 2009, 66 ICCAT Collect. Vol. Sci. Papers 2113, (2011), (Exhibit USA-20), pp. 2114-18.

[658] Mexico's first written submission, para. 84.

[659] Mexico's first written submission, para. 85.

[660] Monin J. Amande et al., Bycatch of the European Purse Seine Tuna Fishery in the Atlantic Ocean for the 2003-2007 Period, 23 Aquat. Living Resour. 353 (2010), (Exhibit USA-19), pp. 358-362; Monin J. Amande et al., Bycatch and Discards of the European Purse Seine Tuna Fishery in the Atlantic Ocean: Estimation and Characteristics for 2008 and 2009, 66 ICCAT Collect. Vol. Sci. Papers 2113 (2011) (Exhibit USA-20), p. 2120.

[661] Monin J. Amande et al., Bycatch of the European Purse Seine Tuna Fishery in the Atlantic Ocean for the 2003-2007 Period, 23 Aquat. Living Resour. 353 (2010), (Exhibit USA-19), pp. 360-61.

presented in Exhibit USA-179 Rev., with regard to dolphin interactions in connection with purse seine fishing without setting on dolphins in the ETAO:

United States' Summary of the Evidence									
Fishery	Year	Observed Sets	Positive Sets	% Positive Sets Injury, or Released Alive	Dolphins Chased	Dolphins Encircled	Dolphin Mortalities	Interactions Per 1,000 Sets	Mortalities Per 1,000 Sets
Eastern Tropical Atlantic Purse Seine[662]	2003-2007	598	0	0%	0	0	0	0	0
	2008-2009	791	0	0%	0	0	0	0	0
	1995-2011	9,969	363	3.64%	no evidence of	155	13 (maximum possible)	15.55	1.30

7.398. To us, this table shows that interactions with dolphins take place infrequently in the ETAO purse seine fishery. Accordingly, we consider that the risk of unobserved mortalities or serious injuries is likely to be low.

7.399. Finally, we note that neither party has submitted evidence showing that purse seine fishing without setting on dolphins in the ETAO causes the kinds of unobservable harms caused by setting on dolphins in the ETP.

7.7.2.2.4 Overall conclusion

7.400. On the basis of our analysis of the evidence on the record, we conclude that purse seine fishing without setting on dolphins has killed and seriously injured dolphins in the past and, consequently, has the potential of killing and seriously injuring dolphins. However, the evidence suggests that the risk profile of this fishing method is generally low, particularly as this fishing method does not require interaction with dolphins in order to spot the tuna.

7.401. When assessing past mortalities and serious injuries on a per set basis, it appears to us that this fishing method has a relatively low risk profile in terms of both observed and unobserved mortality and serious injury. Additionally, we have found that no evidence on the record suggests that purse seine fishing without setting on dolphins causes the kinds of unobservable harms caused by setting on dolphins.

7.402. Accordingly, we conclude that while purse seine fishing without setting on dolphins poses some risks to dolphins, the risk profile of this fishing method as used in different areas of the ocean is relatively low.

7.7.2.3 Gillnet fishing

7.7.2.3.1 Introduction

7.403. We now turn to reviewing the evidence concerning the risks to dolphins caused by gillnet fishing. Once again, we begin by recalling the arguments of the parties concerning gillnet fishing. We next summarize the existing findings concerning the risks to dolphins posed by this fishing method, before moving on to examine the evidence submitted in the course of these proceedings. First, however, we describe the fishing method involving gillnets, the activities incurred in a gillnet set and how, if any, serious injury or death to dolphins can occur.

[662] Monin J. Amande et al., Bycatch of the European Purse Seine Tuna Fishery in the Atlantic Ocean for the 2003-2007 Period, 23 Aquat. Living Resour. 353 (2010), (Exhibit USA-19), pp. 353, 355-58 (2010); Monin J. Amande et al., Bycatch and Discards of the European Purse Seine Tuna Fishery in the Atlantic Ocean: Estimation and Characteristics for 2008 and 2009, 66 ICCAT Collect. Vol. Sci. Papers 2113 (2011), (Exhibit USA-20), pp. 2113, 2114-18 (2011), Lauriane Escalle et al., Cetaceans and Tuna Purse Seine Fisheries in the Atlantic and Indian Oceans: Interactions but Few Mortalities, 522 Mar. Ecol. Prog. Ser., (Exhibit USA-145), pp. 255, 257, 260.

7.404. According to the FAO, gillnets "consist of a panel of fine, nearly invisible webbing suspended vertically in the water column by a series of floats along the top of a series of weights along the bottom. The fish become entangled when they try to pass through the net".[663] Gillnets come in varying mesh sizes depending on the target fish species.[664] "The mesh spaces are large enough for a fish's head to pass through, but not its body. As fish, such as sardines, salmon, or cod try to back out, their gills are entangled in the net or buoy lines".[665] Gillnets also vary widely in length and height, with longer nets "often exceeding 100 km" in length and tens of meters in height.[666]

7.405. A gillnet can be set on the seafloor (set, bottom set or sink gillnets) or floated vertically depending on the target species. When maintained closer to the surface by the use of buoys, they are called "driftnets" or "drift gillnets".[667] A gillnet haul involves the setting, fishing and hauling in of the net by "several fishermen" and will usually last a "whole night", during which patrolling may be done every "two or three hours" to determine if there is catch. [668]

7.406. Gillnets are used to capture a variety of marine species, including tuna[669], sharks[670], groundfish[671], swordfish[672], and squids[673], and can be operated from boats and canoes on inland waters and inshore, decked small vessels in coastal waters and from larger sized vessels fishing offshore, including in the high seas.[674] According to the FAO, "[o]nly a small percentage of the world catch of tunas is taken with gillnets", namely less than 6% of world tuna catch.[675] Accordingly, gillnets are not among the "primary commercial fishing methods for catching tunas",[676] but are "very popular among the small-scale fishermen" and "semi-industrial fisheries" given its simplicity and effectiveness in catching tuna.[677]

7.407. In 1992, in reaction to the high rate of bycatch, that is, incidental capture of non-targeted fish species, marine mammals, sea turtles and sea birds, a moratorium on the use of large scale drift gillnets in the high seas was called by the United Nations General Assembly and the method has since been prohibited by several Regional Fisheries Management Organizations and countries.[678] However, the FAO indicates that "drifting gillnets are still widely used, and very

[663] James Joseph, FAO, Managing Fishing Capacity of the World Tuna Fleet, Chapter 4: The Tuna Fishing Vessels of the World, (Exhibit USA-148), p. 2.

[664] Natural Resources Defense Council, Net Loss: The Killing of Marine Mammals in Foreign Fisheries,(Exhibit MEX-18), p. 13.

[665] Government Accountability Office, National Marine Fisheries Service: Improvements are Needed in the Federal Process Used to Protect Marine Mammals from Commercial Fishing, GAO 09-78, (Exhibit MEX-7), p. 58.

[666] James Joseph, FAO, Managing Fishing Capacity of the World Tuna Fleet, Chapter 4: The Tuna Fishing Vessels of the World, (Exhibit USA-148), p. 2. See also FAO, Tuna Driftnet Fishing, (Exhibit MEX-15); NOAA Fisheries, CA Thresher Shark/Swordfish Drift Gillnet Fishery, (Exhibit MEX-122).

[667] Natural Resources Defense Council, Net Loss: The Killing of Marine Mammals in Foreign Fisheries, (Exhibit MEX-18), p. 13. See also FAO, Tuna Driftnet Fishing, (Exhibit MEX-15).

[668] FAO, Tuna Driftnet Fishing, (Exhibit MEX-15), pp. 3-4. See also NOAA Fisheries, CA Thresher Shark/Swordfish Drift Gillnet Fishery, (Exhibit MEX-122), p. 2; US Department of Commerce, Differentiating Serious and Non-Serious Injury of Marine Mammals: Report of the Serious Injury Technical Workshop 10-13 September 2007, Seattle, Washington, (Exhibit MEX-102), p. 35.

[669] Shane Griffiths et al., Biology, Fisheries and Status of Longtail Tuna (*Thuunus tongol*), with Special Reference to Recreational Fisheries in Australian Waters (Exhibit USA-197), p. 29.

[670] NOAA Fisheries, 2015 Stock Assessment and Fishery Evaluation (SAFE) Report for Atlantic Highly Migratory Species (2015), (Exhibit USA-39), p. 52.

[671] Natural Resources Defense Council, Net Loss: The Killing of Marine Mammals in Foreign Fisheries, (Exhibit MEX-18), p. 25.

[672] FAO, Tuna Driftnet Fishing, (Exhibit MEX-15), p. 2.

[673] Natural Resources Defense Council, Net Loss: The Killing of Marine Mammals in Foreign Fisheries, (Exhibit MEX-18), p. 29.

[674] FAO, Tuna Driftnet Fishing, (Exhibit MEX-15), p. 3.

[675] James Joseph, FAO, Managing Fishing Capacity of the World Tuna Fleet, Chapter 4: The Tuna Fishing Vessels of the World, (Exhibit USA-148), pp. 2 and 6.

[676] Eric L. Gilman and Carl Gustaf Lundin, IUCN Global Marine Programme, Minimizing Bycatch of Sensitive Species Groups in Marine Capture Fisheries: Lessons from Tuna Fisheries, (Exhibit USA-53), p. 2.

[677] FAO, Tuna Driftnet Fishing, (Exhibit MEX-15), p. 3.

[678] United Nations General Assembly Res. 46/215, Large-Scale Pelagic Drift-net Fishing and Its Impact on the Living Marine Resources of the World's Oceans and Seas, (Exhibit USA-66); NMFS, 2012 Report of The Secretary Of Commerce to the Congress of the United States Concerning US Actions Taken On Foreign Large-Scale High Seas Driftnet Fishing, (Exhibit USA-67).

popular, in many coastal and small to medium-scale fisheries in developing countries, particularly in Southeast Asia".[679]

7.408. Apart from High Seas Large-scale Driftnet fishing, which the United States notes is ineligible to receive the dolphin-safe label under the 2016 Tuna Measure[680], the United States adopts a position regarding gillnet fisheries similar to other fisheries analysed in these proceedings, namely that, differently from setting on dolphins, gillnet fishing *can* produce dolphin-safe tuna products for the US market.[681] In support of this position, the United States first argues that gillnet fishing does not intentionally target dolphins, any interaction being accidental and "actively" avoided by fishermen.[682] Second, the United States posits that gillnets are not capable of causing the unique, unobservable harms caused by dolphin sets that occur as a result of the "chase itself" even if no dolphins were directly observed to have been killed[683]. As a consequence, the United States argues that gillnet fishing produces tuna that could be "truthfully" and accurately certified as safe for dolphins.[684] Third, according to the United States, gillnet fishing does not, *necessarily* or as a general matter, cause direct dolphin mortalities at a rate on par with that caused by dolphin sets in the ETP.[685] Additionally, the United States points to the fact that there are effective mechanisms and practices employed by gillnet fisheries to avoid or reduce dolphin interactions.[686]

7.409. Mexico adopts a different position. With respect to observable harms, Mexico points to a string of scientific reports that would establish gillnet fishing as "highly destructive to dolphins".[687] According to Mexico, the absolute numbers of observed mortalities in Pakistan[688], Indian Coast[689], Chinese Taipei[690], and South-East Asia[691] shown in these studies "exceed the combined observable and unobservable mortalities in the ETP by many multiples".[692] Mexico argues, in sum, that the "destructive effect on dolphins simply on the basis of their absolute numbers" indicates that "gillnet fishing should be ineligible [for the dolphin-safe label], just as fishing with high seas driftnets is ineligible".[693] According to Mexico, the fact that some gillnet sets might be made without killing or injuring dolphins "does not ameliorate the massive dolphin mortalities caused by gillnet fishing".[694]

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[679] FAO, Tuna Driftnet Fishing, (Exhibit MEX-15), p. 4. The United Nations Food and Agriculture Organization further indicates that drift gillnetting is used, among other, by the following fishing fleets: Sri Lanka, Philippines, India, Indonesia, China, Honduras, Japan, Panama, Korea, Chinese Taipei, Maldives, Belize, France, Netherlands Antilles, Seychelles, Spain, and Italy. "Drifting gillnets are used to catch different species of tunas in the South east Asia, Western and Central Indian, Western Mediterranean (Tirrenian, Ligurian, St. Sicily)".

[680] United States' first written submission, para. 89. On this matter, the United States also posits that "Mexico did not dispute in the previous compliance proceeding that the eligibility criteria regarding large-scale driftnets or dolphin mortality or serious injury lacked even-handedness, and the DSB made no finding that this was the case" (United States' first written submission, para. 90).

[681] United States' first written submission, paras. 24, 38; second written submission, para. 105; third written submission, para. 93.

[682] United States' response to Panels' question No. 13, para. 69; second written submission, para. 105.

[683] United States' response to Panels' question No.13, para. 70; second written submission, para. 106.

[684] United States' third written submission, paras. 94 and 96. See also United States' comments on Mexico's response to Panels' question No. 60, para. 36.

[685] United States' response to Panels' question No.13, para. 71 (arguing that "gillnet fishing does not, necessarily or as a general matter, cause direct dolphin mortalities at a rate on par with that caused by dolphin sets in the ETP"); third written submission, para. 96 (arguing that "[gillnet] vessels may operate with low bycatch even in fisheries where the average is high" since "[i]ndividual vessel operators can make different choices about how and when to fish and, in particular, how much time and effort to invest in avoiding dolphin interactions").

[686] United States' third written submission, para. 95.

[687] Mexico's first written submission, paras. 69-71.

[688] World Wildlife Fund Pakistan and Australian Marine Mammal Centre, An Assessment of Cetacean Mortality in the Tuna Fisheries of Pakistan (Exhibit MEX-16).

[689] K.S.S.M. Yousuf, et al., Observations On Incidental Catch Of Cetaceans In Three Landing Centres Along The Indian Coast, (Exhibit MEX-17).

[690] Natural Resources Defense Council, Net Loss: The Killing of Marine Mammals in Foreign Fisheries (Exhibit MEX-18).

[691] Convention on Migratory Species, Report of the Second Workshop on The Biology and Conservation of Small Cetaceans and Dugongs of South-East Asia, (Exhibit MEX-19).

[692] Mexico's first written submission, para. 71.

[693] Mexico's closing statement at the Panels' meeting with the parties, para. 5.

[694] Mexico's closing statement at the Panels' meeting with the parties, para. 5.

7.410. Mexico also points to evidence of indirect harms caused to dolphins and other marine mammals by interaction with gillnets. In particular, Mexico adduces evidence showing that although "small marine mammals, such as harbor porpoise and bottlenose dolphins, that contact and become entangled in gillnets seldom survive …[g]illnet interactions are often identified as the cause of death of stranded harbor porpoise in the mid-Atlantic".[695] Additionally, Mexico argues that gillnet fishing (along with other fishing techniques) is the source of a considerable amount of derelict fishing gear that continue to "fish" and have a harmful impact on marine mammals, including dolphins (so-called "ghost fishing"). In effect, Mexico points both to evidence presented in the previous proceedings, regarding dolphins that choke on pieces of the net, and to new evidence on ghost fishing to argue that, even when dolphins escape gillnets or do not interact with them during a fishing set, dolphins may suffer indirect harm from gillnet fishing.[696] On this same note, Mexico argues that dolphin interactions that do occur with gillnet (and longline) fishing gear may happen at a distance from the fishing vessel or after dark, which would prevent them from being observed, and that dolphins may later die from injuries or complications arising from these interactions.[697]

7.411. With respect to unobservable harms, Mexico argues that there is sufficient evidence pointing to the potential stress effects on marine mammals, including cetaceans, of being entangled in gillnet gear to "raise a presumption that genuine concerns exist" that gillnet fishing (and fishing methods) cause unobservable adverse effects on dolphins. However, according to Mexico, none of such unobservable adverse effects are addressed by the 2016 Tuna Measure, and are rather simply presumed as being *de minimis*.[698]

7.412. Moreover, in Mexico's view, the lack of knowledge or oversight of such harmful consequences as they relate to gillnet fishing renders the technique more harmful to dolphins than certified setting on dolphins in the ETP, whose high degree of oversight ensures that any harm to dolphins is correctly identified.[699] Mexico argues that an indication of the harmful consequences to dolphins of gillnet fishing is the fact that no gillnet fishery for tuna "has ever been certified, or recommended for certification, by the Marine Stewardship Council (MSC)", "a well-regarded eco-labelling organization".[700]

7.413. The United States contests Mexico's evidence concerning indirect harms caused by gillnet fishing. The United States contends that the first compliance panel used the term "unobservable harms" to mean harms that arise as a result of the "chase itself" in dolphin sets, independently of whether a dolphin is directly killed or seriously injured by the fishing gear.[701] The United States thus argues that none of the evidence presented by Mexico suggests that the harmful interactions caused by gillnet fisheries mentioned in the evidence were not, in fact, observed or accounted for in per set dolphin interaction rates.[702] First, the United States notes that the evidence regarding "gillnet parts 'protruding from the mouth' of dolphins" had already been considered by the first compliance panel, which found them "to be the kind of serious injury that is observable and that must, under the amended tuna measure, be certified". Second, the United States argues that Mexico's assertions concerning "ghost fishing" do not relate to fishing, in the sense of catching fish, but to potential harms distinct from fishing operations (akin to waste from a fish processing plant). In this sense, such evidence would lack any connection to the Tuna Measure, which relates to enabling consumers to know whether the tuna they purchase was caught by harming dolphins. According to the United States, the evidence does not suggest any "nexus" between ghost fishing and tuna fisheries either. Third, the United States notes that any calf-cow separation caused by

[695] Mexico's response to Panels' question No. 68, para. 46.
[696] Mexico's response to Panels' question No. 68, para. 44.
[697] Mexico's response to Panels' question No. 60, para. 17. See also Mexico's comments on United States' response to Panels' question No. 4, para. 7, fn. 5 (where Mexico posits that "[i]t is unclear how an observer could monitor interactions between dolphins and the gillnet that take place underwater and at night. Presumably the observer can only monitor animals that are pulled up with the net".)
[698] Mexico's response to Panels' question No. 68, paras. 47-49. See also Mexico's response to Panels' question No. 92, paras. 161-162.
[699] Mexico's first written submission, paras. 21 and 230.
[700] Mexico's second written submission, paras. 12-13.
[701] United States' comments on Mexico's response to Panels' question No. 68, para. 61.
[702] United States' comments on Mexico's response to Panels' question No. 68, para. 62. See also United States' comments on Mexico's response to Panels' question No. 60, para. 36.

the death of the mother in a gillnet fishery would "flow from an observable mortality that renders the set non-dolphin safe".[703]

7.414. Finally, regarding evidence on potential stress to dolphins from the interaction with gillnets, the United States contends that the evidence does not suggest that any harms not associated with direct, observable mortalities and serious injuries are caused by any fishing methods other than setting on dolphins. In effect, the United States agrees that any capture in fishing gear is stressful for dolphins, alluding to the fact that one of the key features that distinguishes dolphin sets from other fishing methods is the necessity of capturing (on average) hundreds of dolphins every time the fishing method is used. In this regard, the United States argues that setting on dolphins is at a different order of magnitude than any fishery on the record in terms of the number of dolphins that are chased and captured in purse seine nets in every set and in every year.[704] In sum, we understand the United States' central argument to be that any mortalities or serious injuries to dolphins caused by gillnet fishing contained in the evidence presented by Mexico would be observable (or flow from observable harms or deaths) and would thus render ineligible for the dolphin-safe label any tuna captured during the set or gear deployment where such mortalities or serious injuries occurred.

7.415. Additionally, the United States contends that Mexico's evidence does not contradict the conclusion that certification conditions for gillnet (or longline) fishing are far easier than setting on dolphins in the ETP. According to the United States, the evidence presented by Mexico rather suggests that the nature of the injuries may be difficult to see, given that "[h]ooked cetaceans are often very active, complicating an assessment of where and how the animals are hooked" and that animals may "break the line and swim away … before they are close enough for the observer to see details" or to "identify species and observe details of the interaction events".[705] In this sense, certification conditions would be significantly more difficult in the ETP large purse seine fishery "where there are hundreds of dolphin interactions (on average) in each set, with many of them taking place far from the vessel".[706]

7.416. The United States also rejects Mexico's allegations on observable harms caused by gillnet fishing. As a general point, the United States asserts that the absolute dolphin mortalities caused by gillnet fisheries presented by Mexico (under the "overall absolute levels of adverse effects" metric) do not address the "relative harms to dolphins" of different fishing methods, but rather represent an incorrect comparison between the dolphin mortalities caused by "80-90 vessels setting on dolphins in the ETP with the dolphin mortalities allegedly caused by thousands of (…) gillnet vessels in different fisheries around the world".[707] In this sense, the evidence would not allow for a comparison on an "apples-to-apples" basis. The United States also argues that given the uneven distribution of marine mammals in different ocean areas, "there are [gillnet] fisheries, including tuna [gillnet] fisheries, that pose no known risk to any dolphin species".[708] Such fisheries would include gillnet fisheries in US waters which have been determined by the NMFS in 2016 to pose "a remote likelihood of or no known incidental mortality and serious injury of marine mammals".[709] On this particular point, as it applies to gillnet fisheries in US waters, Mexico disagrees, arguing that the fisheries identified "are not tuna fisheries, and in any event the same document identifies a total of 26 gillnet fisheries that are designated as posing risks to marine mammals".[710]

7.417. Regarding the specific evidence provided by Mexico, the United States first argues that the evidence regarding Chinese Taipei's fisheries does not address dolphin mortalities in "currently existing tuna fisheries".[711] The United States also raises concerns regarding the scientific basis of the evidence presented by Mexico, arguing that the report on Chinese Taipei's near-shore fisheries is "not based on a scientific study, is out of date, and may not relate to tuna fisheries at all", while

[703] United States' comments on Mexico's response to Panels' question No. 68, para. 62.
[704] United States' comments on Mexico's response to Panels' question No. 68, para. 62.
[705] United States' comments on Mexico's response to Panels' question No. 60, para. 36.
[706] United States' comments on Mexico's response to Panels' question No. 60, para. 36.
[707] United States' second written submission, para. 128.
[708] United States' second written submission, para. 57. See also United States' third written submission, para. 59.
[709] NMFS, Proposed Rule: List of Fisheries for 2017, (Exhibit USA-101).
[710] Mexico's second written submission, para. 69.
[711] United States' second written submission, para. 107 (arguing that one of the Chinese Taipei fisheries mentioned in the evidence provided by Mexico had been shut down in 1986, while there was no evidence that the others targeted tuna).

the dolphin mortalities reported on Indian fisheries could not all be attributed to tuna fishing given that only a limited part of the fisheries covered by the study targeted tuna.[712] According to the United States, the evidence from Pakistani and Indian gillnet fisheries "at most" suggests that gillnet fishing "in *particular fisheries* may be putting dolphins in significant danger" and that such situation is appropriately addressed under "other provisions of the US dolphin safe labelling measure".[713] On this point, the United States submits that certain gillnet fisheries in the Indian Ocean region did meet the regular and significant mortality and serious injury standard under the determination provisions.[714] The United States explains that, based on evidence regarding absolute levels of harms to dolphins presented by Mexico in the first compliance proceedings[715], there was evidence on Pakistani gillnet fisheries in the Indian Ocean, as well as in neighbouring fisheries, suggesting that "alarming" levels of mortality were occurring such that, "if per set data were available, the per set mortality rate likely would meet or exceed the "regular and significant" standard".[716] Based on the available dolphin bycatch data, NOAA thus determined these Indian Ocean gillnet fisheries to exhibit bycatch rates (i.e. number of dolphins killed per ton of tuna landed) significantly higher than that caused by dolphin sets in the ETP (the "ETP benchmark"), thus justifying a "regular and significant" mortality determination".[717] Accordingly, on this basis, and in the absence of contradictory information submitted by the countries, NOAA designated such fisheries.[718]

7.418. In sum, with respect to the determination of these Indian Ocean gillnet fisheries, the United States argues that where gillnet fishing causes a high level of direct dolphin mortality in particular fisheries, such harm can be addressed through the enhanced requirements applied under the determination provisions.[719] The United States further argues that the determination made for the Indian Ocean addresses only how gillnet fishing is conducted in that particular area, and not in general.[720] In the view of the United States, there is no evidence on the record showing high levels of dolphin mortality in any currently operating gillnet fishery for tuna other than the Indian Ocean fisheries designated under the determination provisions.[721]

7.419. Additionally, in response to a question by the Panels, the United States provided a table summarizing the "available information regarding tuna gillnet fisheries" on a per set basis (see the table below).[722] According to the United States, the available data on the table and other evidence on the record suggest that, with the exception of Indian Ocean gillnet fisheries, levels of direct dolphin mortality are significantly below those caused by dolphin sets in the ETP.[723]

Table – Available Per Set Tuna Gillnet Fisheries Data[724]

Fishery	Year	Observed Sets	Observed Mortalities	Mortality Per 1,000 Sets	Source of Data
Northern Australia Gillnet Fishery[725]	2000-2003	105 (exp.)	2	19.0	Observer reports
		160 (control)	3	18.9	
California Drift	2014	113	4	35.4	Observer

[712] United States' second written submission, para. 107.
[713] United States' second written submission, para. 108 (emphasis from original).
[714] United States' second written submission, para. 157.
[715] R.C. Anderson, Cetaceans and Tuna Fisheries in the Western and Central Indian Ocean, (Exhibit MEX-42).
[716] United States' second written submission, para. 169.
[717] United States' second written submission, para. 172.
[718] United States' second written submission, para. 175.
[719] United States' third written submission, para. 99.
[720] United States' response to Panels' question No. 13, para. 72.
[721] United States' third written submission, para. 115.
[722] United States' response to Panels' question No. 4, para. 16.
[723] United States' response to Panels' question No. 4, para. 17.
[724] Reproduced as presented by the United States in its response to Panels' question No. 4, para. 16.
[725] Geoffrey R. McPherson et al., Acoustic Alarms to Reduce Marine Mammal Bycatch from Gillnets in Queensland Waters: Optimising the Alarm Type and Spacing, (Exhibit USA-196); Shane Griffiths et al., Biology, Fisheries and Status of Longtail Tuna (*Thuunus tongol*), with Special Reference to Recreational Fisheries in Australian Waters, (Exhibit. USA-197).

Fishery	Year	Observed Sets	Observed Mortalities	Mortality Per 1,000 Sets	Source of Data
Gillnet Fishery[726]	2015	41	1	24.4	reports (30% and 11% coverage)
California Set Gillnet Fishery[727]	2010	216	1	4.6	Observer reports (13% and 8% coverage)
	2011	171	0	0.0	
Indian Ocean Mixed-Target Gillnet Fisheries	According to the United States:"[n]o per set data is available for this fishery. However, as the United States has explained, the available information suggests that, if per set data were available, it would be above the level of observed dolphin mortality caused by dolphin sets in the ETP, on average over the past 20 years, i.e. [126.5] dolphin mortalities per 1,000 sets".				

7.420. In response, Mexico observes that the California Drift-Gillnet Fishery included in the table and considered by the United States to be a "dolphin-safe fishery", is rated as a Category I fishery by the US Department of Commerce due to its impact on sperm whales. [728] Mexico further observes that the gear and method used by the fishery are very similar to the large-scale driftnet method that is ineligible for the dolphin-safe label when used in the high seas, "the main differences being that (i) the nets in the California fishery are just under 2 kilometres compared to the 2.5 kilometre length with which "large scale" driftnets are defined and (ii) the fishery is in US territorial waters rather than the high seas".[729] Mexico also points to the fact that, in 2014, members of the California state legislature urged the US Department of Commerce to require the phasing out of this fishery considering the amount of bycatch of "endangered and protected species that are of great significance to the people of California and are an important part of the ocean ecosystem" by the "large-mesh drift gill nets".[730] Finally, Mexico posits that,"[e]ven accepting the United States' data about this fishery at face value, the United States has failed to explain why a mortality rate of 35.4 per 100[0] sets should be considered not harmful to dolphins".[731]

7.7.2.3.2 Findings made in the previous proceedings

7.421. The Panels now turn to the findings made by the panels and the Appellate Body in previous stages of this dispute regarding the risk profile of gillnet fishing.

7.422. At the outset, we note that, as it is also the case in the present proceedings, the harms to dolphins caused by gillnet fishing was the object of extensive debates and considerable evidence adduced both in the original and the first compliance proceedings. A significant part of such evidence has been reintroduced by the parties and therefore the previous findings made regarding gillnet fishing are of particular relevance to the present proceedings.

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[726] NMFS, California/Oregon Drift Gillnet Observer Program Observed Catch, (Exhibit USA-198).

[727] NMFS, California Set Gillnet Observer Program Observed Catch, (Exhibit USA-199); NMFS, Proposed Rule: List of Fisheries for 2017, 81 Fed. Reg. 54,019 (August 15, 2016), (Exhibit USA-101).

[728] Mexico's comments on United States' response to Panels' question No. 4, para. 7. The NMFS classifies fisheries under three different categories based on PBR levels of mortality and serious injury of marine mammals. NMFS, Proposed Rule: List of Fisheries for 2017 so describes the categories:

> *Category I*: Annual mortality and serious injury of a stock in a given fishery is greater than or equal to 50 percent of the PBR level (i.e. frequent incidental mortality and serious injury of marine mammals).
> *Category II*: Annual mortality and serious injury of a stock in a given fishery is greater than 1 percent and less than 50 percent of the PBR level (i.e. occasional incidental mortality and serious injury of marine mammals).
> *Category III*: Annual mortality and serious injury of a stock in a given fishery is less than or equal to 1 % of the PBR level (i.e. a remote likelihood of or no known incidental mortality and serious injury of marine mammals).
> NMFS, Proposed Rule: List of Fisheries for 2017, 81 Fed. Reg. 54,019 (August 15, 2016), (Exhibit USA-101), p. 2.

[729] Mexico's comments on United States' response to Panels' question No. 4, para. 8.

[730] Mexico's comments on United States' response to Panels' question No. 4, para. 8.

[731] Mexico's comments on United States' response to Panels' question No. 4, para. 9.

7.423. In the original proceedings, a considerable amount of evidence was adduced regarding harms to dolphins caused by tuna driftnet fishing in coastal areas.[732] The original panel found that "the use of driftnets to catch tuna in coastal areas within Exclusive Economic Zones (EEZs) is considered "a highly destructive practice" and one of "the greatest threats to populations of small cetaceans" in certain areas of the world".[733] In reaching such finding, the original panel quoted evidence submitted by Mexico, noting that:

> The case of pelagic driftnets used in tuna and swordfish fisheries is an example of a highly destructive practice that has now been addressed by the EU in the form of the driftnet ban that came into effect in January 2002. However, there is ample evidence of problems in other fisheries that have yet to be addressed. Moreover, many fisheries in the EU that present a threat to cetaceans are not yet being monitored for their By-Catch [sic]. Therefore, the data that are available represent only a minimum estimate of the scale of the problem.[734]

7.424. The original panel further indicated that evidence had been adduced reporting dolphin bycatch and mortalities resulting from tuna fishing operations in European, Asian and African fisheries.[735] Among the European tuna fisheries, the original panel quoted particular evidence on estimates of bycatch from the French driftnet fishery for tuna[736] and from the UK[737] and Irish[738] driftnet fisheries for albacore. Among the Asian tuna fisheries, the original panel quoted evidence on estimates of bycatch from: "gillnet, driftnet, and purse-seine fisheries in the western central Pacific"[739]; a driftnet fishery operating off Tristan da Cunha[740]; a formerly operating Chinese Taipei shark and tuna gillnet fishery off Northern Australia[741]; tuna driftnet fisheries on the West coast of India[742], in particular, Sri Lankan coastal tuna gillnet and driftnet fisheries[743]; and a tuna driftnet in

[732] Panel Report, *US – Tuna II (Mexico),* paras. 7.521-564.

[733] Panel Report, *US – Tuna II (Mexico),* para. 7.521.

[734] Panel Report, *US – Tuna II (Mexico),* fn. 735 (quoting original Panel Exhibit MEX-99 p. Ev 26). In the same footnote, the original panel observed, in relation to tuna driftnets, that even though the US dolphin-safe provisions prohibit the use of the dolphin-safe label for tuna caught "on the high seas by a vessel engaged in driftnet fishing", they do not impose the same restriction in relation to driftnet fishing for tuna within the exclusive economic zones.

[735] Panel Report, *US – Tuna II (Mexico),* para. 7.522.

[736] Panel Report, *US – Tuna II (Mexico),* fn. 737, indicating bycatch estimates of "1,722 (1365-2079) common, striped and bottlenose dolphins, and long-finned pilot whales in 1992; and 1,654 (1115-2393) common, striped and bottlenose dolphins, and long-finned pilot whales in 1993" (quoting original Panel Exhibit MEX-5, p. XX-16, fn. 89).

[737] Panel Report, *US – Tuna II (Mexico),* fn. 737, indicating the bycatch estimates in 1995 of "104 striped dolphins (38 – 169)" (quoting original Panel Exhibit MEX-5, p. AA-16).

[738] Panel Report, *US – Tuna II (Mexico),* fn. 737, indicating bycatch estimates in 1996 and 1998 respectively of "136 and 964 striped dolphins" (quoting original Panel Exhibit MEX-5, p. AA-16).

[739] Panel Report, *US – Tuna II (Mexico),* fn. 738, indicating bycatch estimates of "[r]oughly 1,700 bottlenose dolphins and 1,000 spinner dolphins … Also at risk are Irrawaddy dolphins. This region's fisheries are diverse and poorly documented. Nevertheless, coastal gillnets, especially driftnets for tunas and mackerels, are widely used. After a closure in Australian waters, the [Chinese Taipei] driftnet fishery relocated and continued fishing in Indonesian waters in the Arafura Sea. With no reduction in effort, high cetacean bycatch rates are probable" (emphasis from original) (quoting original Panel Exhibit MEX-5, p. 26).

[740] Panel Report, *US – Tuna II (Mexico)*, fn. 738, noting "[t]he recent revelation that a driftnet fishery has been operating off Tristan da Cunha for tuna, with concomitant incidental mortality of small whales and dolphins, suggests that there may also be considerable mortality to some as yet unidentified species. Incidental mortality to Heaviside's dolphin, which is restricted to the coastal zone of South Africa and Namibia, may also be an important interaction, but recent data on bycatch and population size are lacking" (emphasis from original) (quoting original Panel Exhibit MEX-5, p. 18).

[741] Panel Report, *US – Tuna II (Mexico),* fn. 738, noting "[a] now-terminated [Chinese Taipei] shark and tuna gillnet fishery operated off Northern Australia and caught bottlenose dolphins, spinner dolphins, spotted dolphins, humpback dolphins and false killer whales, a proportion of which are in this area. The fishery was mainly located in Area 71 and is discussed under that section. Given the amount of gillnetting likely to occur in this region, accidental catches may adversely affect small coastal species such as the finless porpoise and Irrawaddy dolphin to some extent. The driftnet fisheries operating farther offshore—in the Bay of Bengal, for example—might be expected to catch spinner and spotted dolphins, at least, and perhaps other species. Driftnet fisheries in the southern Indian Ocean may catch a variety of species such as the spectacled porpoise, the southern right whale dolphin, and common dolphin. All of these fisheries require more detailed information on non-target catches" (emphasis from original), (quoting original Panel Exhibit MEX-5, p. 23).

[742] Panel Report, *US – Tuna II (Mexico),* fn. 738, noting "[c]atches in India are reported quite frequently, and formed 33% of the total catch of cetaceans recorded in the gillnet fishery at Calicut. Bottlenose dolphins are one of the commonly caught dolphins in seerfish and tuna driftnet fisheries on the west coast of India, and in coastal gillnet fisheries for pomfrets and other species too. In Sri Lanka, this species was found to

Negros Oriental[744]. Finally, among the African tuna fisheries, the original panel quoted evidence on estimates of bycatch from Eastern Central Atlantic large-meshed drift gillnets[745], in particular small scale coastal drift gillnet fisheries in Ghana.[746] In this connection, we note in particular the finding by the original panel that Mexico had "sufficiently demonstrated that tuna caught during a trip where dolphins were killed or seriously injured using a method of fishing other than setting on dolphins outside the ETP may be contained in the tuna products sold in the US market under the dolphin-safe label".[747] We also note that the original panel based its decision on the fact that the "vast majority of tuna products containing tuna caught in the western Pacific Ocean" using, *inter alia*, gillnets was eligible to be labelled dolphin-safe.[748]

7.425. We finally note the original panel's statement, when discussing whether the use of AIDCP labelling requirements would "discourage" the unobserved effects of setting on dolphins and their potential consequences on dolphin populations, that:

> [T]he evidence before the Panel suggests that significant dolphin mortality also arises outside the ETP from the use of other techniques than setting on dolphins, and that some of the affected dolphin populations may be at risk as a result. The Panel notes in this respect the example of a Japanese driftnet fishery for albacore that was observed to have a dolphin mortality rate of three animals per net. In contrast, as previously mentioned, the vast majority of the dolphin sets in the ETP are zero-kills. [749]

7.426. The Appellate Body also made findings regarding the harms to dolphins caused by drift gillnets during the original proceeding. We first note the United States' allegation on appeal that the original panel had erroneously relied on evidence of harm to dolphins from driftnet fishing given that the US measure disallowed labelling tuna products as "dolphin-safe", when the tuna was caught using this fishing method on the high seas.[750] The Appellate Body disagreed, noting that while the US measure stipulated that tuna caught using driftnets on the high seas was not eligible

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consist of between 5 and 25% of the total cetacean catch in four different surveys amounting to 1,250 to 10,000 animals" (emphasis from original), (quoting original Panel Exhibit MEX-5, p. AA-40).

[743] Panel Report, *US – Tuna II (Mexico),* fn. 738, noting "[s]pinner dolphins are caught in Sri Lankan coastal gillnet and driftnet fisheries. This species is caught in Pakistani offshore deepwater gillnet fisheries and is commonly entangled in coastal driftnet fisheries for seerfish and tunas on the west coast of India, and is also entangled in other gillnet fisheries for sharks, pomfrets and other species" (emphasis from original), (quoting original Panel Exhibit MEX-5, p. AA-41). Also that "[s] pinner dolphins are the most frequently caught species in the Sri Lankan fishery, where they formed between 33 and 47% of the total cetacean catch in for different surveys, or roughly 7,050-11,750 dolphins per year" (emphasis from original), (quoting original Panel Exhibit MEX-5, p. AA-41). Finally, "[f]inless porpoise are entangled in Sri Lankan coastal gillnet and driftnet fisheries, shark nets in Australian, and Indian ocean coastal gillnets. This species is commonly caught in seerfish and tuna driftnet fisheries throughout the west coast of India. Finless porpoises have been caught in a shrimp trawl in Pakistan in 1989, entangled in beach seines and stake nets for shrimp, and entangled in small and medium mesh finfish gillnets in shallow inshore waters of Pakistan (emphasis from original), (quoting original Panel Exhibit MEX-5, p. AA-43).

[744] Panel Report, *US – Tuna II (Mexico),* fn. 738, indicating annual bycatch estimates of small cetaceans "in a single tuna driftnet fishery in Negros Oriental" of "about 400" (quoting original Panel Exhibit MEX-5, pp. 26,27, 131)

[745] Panel Report, *US – Tuna II (Mexico),* fn. 739, noting "[i]n the Eastern Central Atlantic, the clymene dolphin (Ghanaians call it the "common dolphin"), bottlenose, pantropical spotted, Risso's, long-beaked common, and rough-toothed dolphins; short-finned pilot whale, melon-headed whale, dwarf sperm, and Cuvier's beaked whale may all be caught in large-meshed drift gillnets targeting tuna, sharks, billfish, manta rays, and dolphins" (emphasis from original), (quoting original Panel Exhibit MEX-5, p. 102).

[746] Panel Report, *US – Tuna II (Mexico),* fn. 739, noting "[i]n 1997, the IWC Scientific Committee concluded that information on small cetaceans in Africa (outside southern Africa) is very sparse and that issues of cetacean fishery bycatch must be addressed. Projects that have sampled landing sites of small scale coastal fisheries in Ghana since 1998 show that bycatch and directed harvests of small cetaceans are commonplace and possibly increasing. The largest catches, by far, are the result of deployment of large meshed drift gillnets targeting tuna, sharks billfish, manta rays, and dolphins. The species most frequently caught are clymene (Ghanaians call it the "common dolphin"), bottlenose, pantropical spotted, Risso's, long-beaked common, and rough-toothed dolphins, together with short-finned pilot and melon-headed whales"noting (emphasis from original), (quoting original Panel Exhibit MEX-5, p. 9).

[747] Panel Report, *US – Tuna II (Mexico),* para. 7.534.

[748] Panel Report, *US – Tuna II (Mexico),* para. 7.534.

[749] Panel Report, *US – Tuna II (Mexico),* para. 7.613 (emphasis added) (internal citations omitted) (quoting original Panel Exhibit MEX-2, p.101). The Panels note that the study presented in original Panel Exhibit MEX-2 dates from 1992, being thus based on data prior to the adoption of the UN moratorium on high-seas driftnets which significantly reduced mortalities in covered fisheries. See Exhibit MEX-18, p. 29.

[750] Appellate Body Report, *US – Tuna II (Mexico)*, para. 26.

for a "dolphin-safe" label, it granted access to the label to tuna products containing tuna caught with driftnets in exclusive economic zones. The Appellate Body thus found that "insofar as such tuna products are eligible for a "dolphin-safe" label, the Panel's reliance on sources relating to driftnet fishing was not "mistaken"".[751] We note, as we explained above,[752] that the eligibility criteria have not been modified since the original proceedings and thus we understand that this finding by the Appellate Body is relevant to the 2016 Tuna Measure. Consequently, in the present proceedings, we will also rely on sources relating to driftnet fishing, in particular in domestic waters, to ascertain the harms to dolphins caused by gillnet fisheries in different parts of the ocean.

7.427. Turning now to the findings made in the first compliance proceedings, we first note that the first compliance panel found that Mexico had submitted substantial evidence showing that gillnets kill and seriously injure dolphins.[753] The first compliance panel further considered that Mexico had summarized a substantial number of reports and studies testifying to the "deleterious effects" that tuna fishing methods other than setting on dolphins may have on dolphins, include gillnet fishing.[754] This evidence, according to the first compliance panel, presented "a compelling case" that these methods were "negatively impacting the health and well-being of dolphin populations".[755] Thus, the first compliance panel confirmed the original panel's finding regarding the existence of "substantial evidence" on observable harms caused to dolphins by gillnet fisheries.

7.428. However, the first compliance panel found that none of the evidence showing that gillnets kill and seriously injure dolphins suggested that gillnets have "the same kind of unobservable effects as setting on dolphins". The panel found:

> With respect to gillnet fishing, Mexico has submitted substantial evidence showing that gillnets kill and seriously injure dolphins. None of this evidence, however, suggests that gillnets have the same kind of unobservable effects as setting on dolphins. The closest that the evidence comes to making such an allegation is the finding by Gomercic et al that "[e]ven when dolphins do not immediately drown in a gillnet, interactions with the net causes dolphins to die later". Specifically, the report suggests that gillnets may cause eventual strangulation even of dolphins that manage to break free from the net. Accompanying this statement is a photograph of a dolphin with a "gillnet part…protruding from [its] mouth". While it may be that dolphins injured in gillnets die at some later time, injuries such as those leading to gillnet parts "protruding from the mouth" of dolphins would seem clearly to be the kind of "serious injury" that is observable and that must, under the amended tuna measure, be certified. Accordingly, while the evidence presented by Mexico suggests that gillnets caused delayed death or serious injury, it does not suggest that such nets cause the same kind of unobservable harms as are caused by setting on dolphins.[756]

7.429. The first compliance panel further noted that Mexico's evidence concerned the extent of mortality and serious injury caused by tuna fishing methods, including gillnet fishing, that were "precisely the kind of interactions that can and, under the amended tuna measure, must be certified, and whose occurrence renders ineligible for the dolphin-safe label any tuna caught in the set in which the harmful interaction (i.e. the death or serious injury) occurred".[757] Thus, for the first compliance panel, while gillnets did cause serious injury and death, these harms were observable and did not amount to the same kind of unobservable harms as those found to be caused by setting on dolphins.

7.430. On appeal, Mexico challenged this finding by the first compliance panel under Article 11 of the DSU. According to Mexico, the panel had erred in finding that all of the effects on dolphins caused by fishing methods other than setting on dolphins would be "observable" if a trained

[751] Appellate Body Report, *US – Tuna II (Mexico)*, para. 270.
[752] See Section 7.4 above.
[753] Panel Report, *US – Tuna II (Mexico) (Article 21.5 - Mexico)*, para. 7.130.
[754] Panel Report, *US – Tuna II (Mexico) (Article 21.5 - Mexico)*, para. 7.132 (quoting, with reference to gillnets, original compliance Panel Exhibit MEX-39, and with reference to driftnets original compliance Panel Exhibit MEX-103).
[755] Panel Report, *US – Tuna II (Mexico) (Article 21.5 - Mexico)*, para. 7.132.
[756] Panel Report, *US – Tuna II (Mexico) (Article 21.5 - Mexico)*, para. 7.130 (internal citations omitted) (quoting original compliance Panel Exhibit MEX-52).
[757] Panel Report, *US – Tuna II (Mexico) (Article 21.5 - Mexico)*, para. 7.132 (internal citations omitted).

person were watching for them.[758] The Appellate Body disagreed, noting that the panel had not found that *all* the effects on dolphins of other fishing methods would be "observable", but rather that none of the evidence presented by Mexico regarding the adverse effects on dolphins caused by other fishing methods suggested that fishing methods other than setting on dolphins inflict the *same kinds of unobservable harms* that are caused by setting on dolphins as a result of the chase itself.[759] The Appellate Body further found, contrary to Mexico's argument, that the first compliance panel *did* examine the available evidence regarding gillnet fishing as it relates to unobservable harms and that by raising the claim under Article 11 of the DSU, Mexico seemed to be "rearguing the case" and asking the Appellate Body to "attribute to its evidence greater significance than did the Panel". According to the Appellate Body, such a request was not compatible with the scope of appellate review.[760]

7.7.2.3.3 Panels' assessment in the present proceedings

7.431. We now turn to our own assessment of the evidence presented by the parties in these proceedings. At the outset, we note that the relevant evidence put forward by both parties in these proceedings with respect to observable and unobservable harms caused by gillnet fishing is particularly contested and considerably limited in scope. As we have already explained, the limited nature of the data before us is a common feature of a significant part of the evidence on dolphin mortalities in non-ETP fisheries.[761] We note that this issue is of particular relevance to the determination of the risk profile of gillnet fishing.

7.432. First, we note, as pointed out above[762], that even though there is evidence indicating the existence of several gillnet (and driftnet) fisheries that fish for tuna, these tend to be small and medium coastal mixed-target fisheries that are not major suppliers of tuna to international markets.[763] This seems to be one of the reasons explaining the limitedness of scientific studies with comprehensive observer coverage regarding gillnet fisheries (apart from large scale driftnet gillnets in the high seas).[764] At the same time, we note that even if gillnet fishing is not among the "primary commercial fishing methods for catching tunas"[765], it is "very popular among the small-scale fishermen" and "semi-industrial fisheries" given its simplicity and effectiveness in catching tuna.[766] We also note that Mexico has adduced evidence that gillnet fishing represents a large share of tuna produced in some regions.[767]

7.433. The Panels further note that both parties presented evidence regarding gillnet fisheries which included non-tuna gillnet fisheries or gillnet fisheries that did not fish exclusively or even primarily for tuna.[768] In this case, we find particular merit in the argument presented by the United States regarding the "relevance" of some exhibits on the record concerning dolphin mortalities in

[758] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.198.
[759] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.200.
[760] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.201.
[761] See Section 7.7.1.2.3.
[762] See para. 7.406
[763] See James Joseph, FAO, Managing Fishing Capacity of the World Tuna Fleet, Chapter 4: The Tuna Fishing Vessels of the World, (Exhibit USA-148), p.2 (stating, in particular, that "[o]nly a small percentage of the world catch of tunas is taken with gillnets").
[764] In this respect, we find the considerations by the NRDC on "challenges and limitations" concerning data on mortalities of marine mammals in connection with "gillnet interactions" illustrative. We note, in particular, NRDC's reference to a 2013 study on marine mammal bycatch in gillnet and other entangling net fisheries which reviewed "20 years' worth of literature" and identified important "data gaps" concerning species "at greatest risk from gillnet interactions". Natural Resources Defense Council, Net Loss: The Killing of Marine Mammals in Foreign Fisheries, (Exhibit MEX-18), p.24. We note that these issues are not particular to *tuna* gillnet fisheries, but as far as they help illustrate the challenges in data collection for gillnet fisheries in general we find the evidence to be of relevance. See also Alison McCarthy et al., Pilot Observer Programme in Irish Pelagic Trawl and Gillnet Fisheries: Implementing Council Regulation (EC) No 812/2004, (Exhibit USA-163), p. 23; and L. Mannocci et al., Assessing the Impact of Bycatch on Dolphin Populations: the Case of the Common Dolphin in the Eastern North Atlantic, (Exhibit MEX-120), p. 8.
[765] Eric L. Gilman and Carl Gustaf Lundin, IUCN Global Marine Programme, Minimizing Bycatch of Sensitive Species Groups in Marine Capture Fisheries: Lessons from Tuna Fisheries, (Exhibit USA-53), p. 2.
[766] FAO, Tuna Driftnet Fishing, (Exhibit MEX-15), p. 3.
[767] See Mexico's opening statement, para. 60. See also International Seafood Sustainability Foundation, Fishing Methods, (Exhibit MEX-82), p. 2 (mentioning IOTC data indicating that between 30% and 40% of catch in the Indian Ocean is attributed to gillnets).
[768] See, *e.g.*, K.S.S.M. Yousuf, et al., Observations On Incidental Catch Of Cetaceans In Three Landing Centres Along The Indian Coast, (Exhibit MEX-17); and NMFS, Proposed Rule: List of Fisheries for 2017, 81 Fed. Reg. 54,019 (August 15, 2016), (Exhibit USA-101).

non-tuna gillnet fisheries. According to the United States, given that information about gillnet fishing generally does not relate to tuna fisheries, "more general information could be useful in providing an accurate picture of the fishing method".[769] Finally, we also note that in the "summary tables" presented by each party summarizing the evidence on the record regarding the overall relative risk profiles of different fishing methods in different areas of the ocean, very few data were available on the risks to dolphins related to gillnet fishing.[770] In particular, we note that the table provided by Mexico only indicated evidence on harms to dolphins in one group of fisheries, namely the Indian Ocean Gillnet fisheries (indicating a total absolute mortality of 60,115 dolphins in 2009).[771] Conversely, the table presented by the United States, which contains data on dolphin mortality and interaction on a per set basis, makes no reference to gillnet fisheries. In response to a request by the Panels, the United States provided a table on the available per set data for tuna gillnet fisheries.[772] The table presents information on one Australian (the "Northern Australia Gillnet Fishery") and two US tuna gillnet fisheries (the California Drift and Set Gillnet Fisheries). Additionally, the table includes estimates of per set mortalities for the gillnet fisheries in the Indian Ocean that were object of the determination procedure by NOAA.

7.434. As explained in Section 7.7.1.2.1.2 above, we will use per set data in determining risk profiles of different fishing methods. However, as we have just noted, the data on the record regarding gillnet fishing is partial in scope, and is not generally provided on a per set basis, except for limited the information provided by the United States, as indicated above. We therefore find it appropriate to base our assessment of gillnets risk profile on "more general information" on the record, in terms of measurement (per set or absolute) and the target species of the fisheries for which data on gillnet is available (exclusively tuna fisheries or not).

7.435. We finally note that a considerable part of the evidence adduced by the parties in the present proceedings regarding the risk profile of gillnet fishing has already been assessed by panels and the Appellate Body in the previous segments of this dispute.[773] In our assessment of the observable harms caused by gillnet fishing, therefore, we will first note the findings made in those previous proceedings. We will then assess the evidence submitted in these proceedings to determine whether that evidence requires us to modify any of those previous findings.

7.436. With regard to observable harms, we recall that the extensive evidence on absolute levels of death to dolphins presented in the original proceedings[774] led the original panel to consider that Mexico had sufficiently demonstrated that gillnet fisheries around the world were capable of harming dolphins, while remaining eligible to be labelled dolphin-safe.[775] We further note that none of the evidence adduced during the first compliance proceedings changed that finding, and the first compliance panel thus also considered that Mexico had submitted "substantial evidence" showing that gillnets kill and seriously injure dolphins.[776]

7.437. On this, we note that there seems to be no contention among the parties that tuna gillnet fishing *can* and indeed *does* cause observable harms to dolphins. What the parties disagree on is the *extent*, *frequency* and *nature* of such harms.

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[769] United States' response to Panels' question No. 94, para. 311 (internal citations omitted).

[770] See Table summarizing the data available regarding the relative overall risks of adverse effects on dolphins caused by different fishing methods in different ocean areas, (Exhibit MEX-95) ; and United States, Tables Summarizing Fishery-by-Fishery Evidence on the Record, (Exhibit USA-179 Rev.).

[771] Table summarizing the data available regarding the relative overall risks of adverse effects on dolphins caused by different fishing methods in different ocean areas, (Exhibit MEX-95), p. 2. We note that a second fishery seemed to include gillnets, namely the "Eastern North Atlantic Trawl and Gillnet". However, upon analysis of the related evidence and considering the arguments presented by Mexico based on this Exhibit, it seems that the data in the report as it relates to dolphin bycatch rates refer primarily to trawl fisheries. See Mexico's response to Panels' question No. 65, para. 33 ; L. Mannocci et al., Assessing the Impact of Bycatch on Dolphin Populations: the Case of the Common Dolphin in the Eastern North Atlantic, (Exhibit MEX-120), p. 2 (noting that "[i]n the eastern North Atlantic, at least 1000 common dolphins (Delphinus delphis) are bycaught each year, particularly in pelagic pair-trawls").

[772] See para. 7.419 above.

[773] See paras. 7.421-7.430 above.

[774] Mostly reflected in Panel Report, *US – Tuna II (Mexico),* para. 7.522, fn. 737-739. See also para. 7.425 above.

[775] Panel Report, *US – Tuna II (Mexico),* para. 7.534.

[776] Panel Report, *US – Tuna II (Mexico) (Article 21.5 - Mexico)*, para. 7.130.

7.438. In the present proceedings, Mexico again has presented evidence to demonstrate absolute levels of death to dolphins caused by gillnet fishing in different areas of the ocean.[777] We note, in particular, several studies presented by Mexico, pointing to considerable risks to dolphins (and other marine mammals) of being bycaught and killed in gillnets, particularly by coastal driftnets, given that this technique indiscriminately affects marine life.[778] Indeed, the evidence on the record suggests that gillnet fishing in several ocean areas has killed cetaceans arising to the tens of thousands annually, potentially posing a risk to the sustainability of many cetacean stocks.[779] We

[777] See Mexico's first written submission, paras. 69-71. See also Mexico's closing statement, para. 5.

[778] See Kobe II Bycatch Workshop Background Paper, (Exhibit MEX-113), p. 2 ("It is generally accepted that, wherever gillnets are deployed, there is likely some degree of marine mammal bycatch…").

See also World Wildlife Fund Pakistan and Australian Marine Mammal Centre, An Assessment of Cetacean Mortality in the Tuna Fisheries of Pakistan, (Exhibit MEX-16), p. 10 ("It is an established fact that cetaceans are highly prone to the gillnet operation and die due to entanglement and suffocation. High mortality was reported by tuna gillnet operation but there [sic] frequency and quantification were not well known").

See also L. Mannocci et al., Assessing the Impact of Bycatch on Dolphin Populations: the Case of the Common Dolphin in the Eastern North Atlantic, (Exhibit MEX-120), p. 2 ("In the eastern North Atlantic (ENA), short-beaked common dolphin (Delphinus delphis) has been reported as bycatch in several fisheries, including tuna driftnet fishery [2], pelagic pair-trawl fishery [3,4], gillnet fishery [5] and set gillnet fishery [6]").

See also Young and Iudicello, Worldwide Bycatch of Cetaceans, US Department of Commerce, NOAA Tech. Memo. NMFS-OPR-36 (July 2007), (Exhibit MEX-21), p. 12 ("Fishing gear, especially gillnets, indiscriminately catches an undetermined number of marine species, including dolphins and porpoises"); p. 15 ("In the Atlantic Ocean, the major bycaught species and gear types in which this bycatch occurs are … humpback dolphins in West Africa, coastal gillnets; sperm whales, striped dolphins, and short-beaked common dolphins in the Mediterranean, pelagic driftnets and gillnets; harbor porpoises in Black Sea, coastal gillnets; … dusky and Commerson's dolphins in Argentina, coastal gillnets and midwater trawls and franciscanas in coastal gillnets"); p. 16 ("In the Pacific Ocean, the major bycaught species and gear types in which this bycatch occurs are Risso's dolphins in Sri Lanka, drift and set gillnets in combination with direct harpooning; bottlenose dolphins … south coast of Zanzibar (Tanzania), drift and bottom-set gillnets; Indo-Pacific humpback dolphins … south coast of Zanzibar (Tanzania), drift and bottom-set gillnets, Madagascar and East Africa, coastal gillnets; … Irrawaddy dolphins in … Bay of Bengal, heavy-mesh drift gillnets for elasmobranches;… Spinner dolphins and Fraser's dolphins in the Philippines, driftnets for large pelagics and flying fish, purse seines for small pelagics; ... Hector's dolphins, North Island (New Zealand), coastal gillnets; Dusky dolphin, Peru, drift gillnets"); p. 194 ("The French driftnet fishery for albacore in the northeast Atlantic in the early 1990s caught between 420–460 dolphins, apparently both whitesided and striped dolphins … Common dolphins are frequently caught in coastal Portuguese fisheries: 47% of those reported were from gillnet fisheries. In 1996 and 1998 respectively, the Irish driftnet fishery for albacore caught 356 and 2,522 common dolphins"); p. 198 ("[stripped dolphin] bycatch has been reported in coastal gillnet fisheries in Brazil … Spotted dolphins are incidentally captured in gillnets throughout much of its range off Brazil, Venezuela and Colombia-- particularly high bycatch occurs in coastal gillnets in southern Brazil. Common dolphins may be regularly caught in northeastern Venezuela and in coastal gillnets and driftnets in southern and southeastern Brazil"); pp. 206-207 ("Italian, Greek and Moroccan pelagic drift fishing vessels have high levels of incidental [striped dolphins] mortality. … Moroccan driftnet vessels kill more than 3,600 dolphins (striped and common, combined) in the Alborán Sea per year… In 2000, the French thonaille drift net fishery killed 326 (180-472) striped dolphins"); p. 254 ("In conclusion, during the 1990s, the IWC estimated that more than 1,800 dusky dolphins died each year in coastal Peruvian fisheries. … Capture rates were lower in 1995-1998 when fishers were using fixed bottom-setting gillnets") (internal quotations omitted).

[779] See Natural Resources Defense Council, Net Loss: The Killing of Marine Mammals in Foreign Fisheries, (Exhibit MEX-18), p. 9 ("For instance, it is possible that the vaquita, a unique species of porpoise found in the northern Gulf of California, has been reduced to far fewer than 250 individuals in the past century largely due to bycatch in gillnets"); p. 20 ("False killer whales are bycaught in gillnet, purse seine, trawl, and longline fisheries in tropical and temperate waters worldwide. US assessments of interactions between false killer whales and fisheries in Hawaiian waters show bycatch levels that consistently exceed the potential biological removal level for many of the region's populations"); p.20 ("The problem of spinner dolphin interactions with Sri Lankan driftnets and set gillnets was identified as a priority in a 2005 paper authored by some of the world's foremost cetacean experts …Spinner dolphins often get entangled in seer fish and tuna driftnets off the west coast of India"); p. 22 ("Even after the hunt ended, the Black Sea [harbour porpoise] population continued to decline due to interactions with bottom-set gillnets, with incidental mortality possibly in the thousands per year"); p. 29 ("In the 1980s, the estimated total bycatch for the squid driftnet fisheries of Japan, [Chinese Taipei], and South Korea was estimated at 15,000 to 24,000 cetaceans per year… Sightings, boardings, and fishing vessel seizures indicate that driftnets are still a threat, although driftnet fishers have recently shifted from targeting salmon to mostly squid, tuna, and sharks"); p. 30 ("Japan's inland gillnet fishery, along with the [Chinese Taipei] offshore and distant-water driftnet fisheries, have been implicated as problem fisheries for marine mammal bycatch … Data on Chinese fisheries and bycatch are not publicly available, but China's offshore and distant-water fisheries use gear known to interact with cetaceans, mainly gillnets and trawls"); p. 32 ("Bycatch from Sri Lankan and Indian tuna gillnet fisheries has been implicated as a critical threat to marine mammals. During a two-year period in the mid-1980s, Sri Lankan gillnet fisheries caught at least 8,000 cetaceans. An IWC workshop held in 1990 estimated that more than 40,000 marine mammals were killed annually in Sri Lankan artisanal gillnet fisheries … In India, as in many other regions of the world, gillnets are believed to present the most significant bycatch threats for marine mammals. It is

further note that some of the evidence presented by the United States confirms that tuna gillnets and driftnets pose considerable risks to dolphins in different areas of the ocean.[780]

7.439. In particular, we note that despite the UN moratorium on large scale high-seas driftnets that took effect in 1992[781], the evidence on the record strongly suggests that driftnets continue to pose considerable risks to dolphins and other cetaceans, mainly in inland and coastal waters, but also by means of IUU driftnet fishing.[782] We note that several countries have reacted to the harmful consequences of driftnet fishing to marine life, including dolphins, by banning or restricting driftnet fishing, including in their domestic waters.[783] Additionally, as pointed out by the

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estimated that India's coastal gillnet fisheries catch approximately 9,000 to 10,000 marine mammals each year"); p. 34 ("The Atlantic humpback dolphin (Sousa teuszii) is a species of particular concern. Endemic to the West African coast, the population is experiencing marked declines in abundance and is currently listed as Vulnerable by the IUCN. Bycatch from local small-scale gillnets represents the primary threat…"); p. 35 ("The Franciscana dolphin is considered particularly vulnerable to coastal, mainly artisanal, gillnet fisheries operating out of Argentina, Brazil, and Uruguay … Reeves et al. estimated that around 2,900 individuals could be caught in coastal fisheries each year, while a 2009 study estimated bycatch mortality to range from 1,200 to 1,800 per year. While the species' abundance is unknown, researchers believe gillnet mortality is not sustainable in most areas") (internal citations omitted).

[780] See Eric L. Gilman and Carl Gustaf Lundin, IUCN Global Marine Programme, Minimizing Bycatch of Sensitive Species Groups in Marine Capture Fisheries: Lessons from Tuna Fisheries, (Exhibit USA- 53), p. 3 (noting on tuna fisheries that "[p]rominent bycatch issues include dolphins and porpoises in purse seine fisheries and driftnets; fish discards in shrimp trawl fisheries; and seabird, sea turtle, marine mammal, and shark bycatch in longline, purse seine, gillnet and trawl fisheries").

See also Al Kingston and Simon Northridge, Extension Trial of an Acoustic Deterrent System to Minimise Dolphin and Porpoise Bycatch in Gill and Tangle Net Fisheries, (Exhibit USA-160), p. 3 ("It should be noted that when Council Regulation 812/2004 was drafted it was not clear that common dolphins were also bycaught in gillnets to the extent to which we now know they are and it is not known whether the pingers described in the regulation are effective in minimising dolphin bycatch").

See also Alison McCarthy et al., Pilot Observer Programme in Irish Pelagic Trawl and Gillnet Fisheries: Implementing Council Regulation (EC) No 812/2004, (Exhibit USA-163), p. 23 ("…10 harbour porpoises (Phocoena phocoena) and three common dolphins were observed bycaught in gillnet and tangle net fisheries in the UK in 2009, raising the total bycatch to the UK fleet level to 791 (CV 0.31) and 237 (CV 0.58), respectively") (internal citations omitted).

[781] See United Nations General Assembly Res. 46/215, Large-Scale Pelagic Drift-net Fishing and Its Impact on the Living Marine Resources of the World's Oceans and Seas, (Exhibit USA-66).

[782] See, e.g., Natural Resources Defense Council, Net Loss: The Killing of Marine Mammals in Foreign Fisheries, (Exhibit MEX-18), p. 29 ("In the 1980s, the estimated total bycatch for the squid driftnet fisheries of Japan, [Chinese Taipei], and South Korea was estimated at 15,000 to 24,000 cetaceans per year. … The U.N. moratorium on high-seas driftnets that took effect in 1992 significantly reduced mortalities … And yet illegal drift-netting still occurs in the Northern Pacific. Sightings, boardings, and fishing vessel seizures indicate that driftnets are still a threat, although driftnet fishers have recently shifted from targeting salmon to mostly squid, tuna, and sharks"); p. 22 ("Unlike in the Mediterranean, where IUU driftnetting is being slowly tackled to reduce marine mammal bycatch, illegal drift-netting continues unabated in the Black Sea"); p. 31 ("A large number of Dall's porpoises were killed in the 1990s and 2000s in the exclusive economic zones of Russia and Japan, despite the driftnet moratorium. Japanese salmon driftnet fisheries that operated in Russia's exclusive economic zone had an estimated bycatch of more than 20,000 Dall's porpoises from 1992 to 2008. Bycatch of the species continues in Russia, where several fisheries still use gillnets") (internal citations omitted).

[783] See Panel Report, *US – Tuna II (Mexico),* fn. 735 (quoting original Panel Exhibit MEX-99, p. Ev 26) ("The case of pelagic driftnets used in tuna and swordfish fisheries is an example of a highly destructive practice that has now been addressed by the EU in the form of the driftnet ban that came into effect in January 2002").

See also Young and Iudicello, Worldwide Bycatch of Cetaceans, US Department of Commerce, NOAA Tech. Memo. NMFS-OPR-36 (July 2007), (Exhibit MEX-21), p. 207 ("The Italian drift net (spadare) fishery is estimated to have killed thousands of striped dolphins per year through the early 1990s …The Italian driftnet fishery in the Ligurian Sea has been banned since 1992, but illegal fishing may still contribute to striped dolphin fishery mortality in Italian waters").

See also, Natural Resources Defense Council, Net Loss: The Killing of Marine Mammals in Foreign Fisheries, (Exhibit MEX-18), p. 19 ("In June 2013, the government took another important step toward saving the vaquita by adopting modifications to shrimp fishing standards, calling for a three-year phaseout of drift gillnet shrimp gear, to be replaced by more selective equipment that would reduce the likelihood of vaquita bycatch").

See also World Wildlife Fund Pakistan and Australian Marine Mammal Centre, An Assessment of Cetacean Mortality in the Tuna Fisheries of Pakistan, (Exhibit MEX-16), p. 4 ("It is estimated that about 12,000 dolphins are killed every year in tuna gillnet operation. … Marked seasonality was observed in the enmeshment of dolphin with maximum mortality in November ... Considering exceptionally highly mortality of dolphins it is recommended to take appropriate management measures including ban on new entry in tuna gillnet fishing, compliance to UNGA Resolutions restricting gillnet length to 2.5 Km, conversion of gillnetting fleet to longlining, declaration of marine protected areas (MPAs), establishment of a regular data base of turtle and cetacean

United States[784], several other measures were put in place in different fisheries to reduce the negative effects of gillnet and driftnet fishing on marine mammals, including dolphins.[785] On this point, we note that the Appellate Body confirmed the original panel's finding that while large scale drift gillnet fishing in the high seas was disallowed by the US measure, other types of driftnet fishing were not, notably, for instance, driftnet fishing in domestic waters.[786]

7.440. Our assessment of the evidence submitted in the present proceedings does not, in our view, change the previous factual findings that gillnet fishing causes considerable observable harms to dolphins in different areas of the ocean.[787] In this regard, we note in particular the finding made by the original panel that some tuna gillnet fisheries, particularly driftnets used in coastal areas, are "highly destructive" and represent one of "the greatest threats to populations of small cetaceans" in certain areas of the world".[788]

7.441. We also recall the high numbers of dolphin mortalities (rising to the tens of thousands) caused by large scale drift nets in the high seas during the 1980s and early 1990s that led to the 1992 UN moratorium on the practice.[789] Additionally, we note the significant numbers of dolphins mortalities in the Indian Ocean Mixed-Target Gillnet Fisheries which led NOAA to determine that the mortalities in such fisheries would surpass, many times over, the ETP "regular and significant dolphin mortality or serious injury of dolphins" standard.[790] We find that this evidence demonstrates that gillnet fisheries, and driftnet fisheries in particular, have caused, in some circumstances and in certain regions, levels of observable harms greater than those caused by setting on dolphins in the ETP.

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enmeshment and adherence to management measures suggested by tRFMO (IOTC) ... it may be kept in mind that a few tuna gillnet vessels sometime transship their catch to vessels from neighbouring country as well as retain themselves for later auction or dispose off their catch to other types of local vessels").

[784] See United States' third written submission, para. 95.

[785] See e.g. Natural Resources Defense Council, Net Loss: The Killing of Marine Mammals in Foreign Fisheries, (Exhibit MEX-18), p. 12 ("Take Reduction Plan requires the use of acoustic net alarms, called "pingers," which are attached to gillnets in certain fisheries along the Atlantic Coast to reduce the incidence of harbour porpoise bycatch"); p. 22 ("While mild acoustic deterrents called "pingers" have proved effective at reducing harbor porpoise bycatch, they are required in the Baltic Sea only on gillnet vessels more than 12 meters long"); p. 26 ("Harbor Porpoise Take Reduction Plan. The plan applies to most sink gillnet fisheries from North Carolina to Maine and includes both time and area closures where bycatch rates are high, as well as a mandate for the use of pingers on gillnets in certain areas. Following implementation of the plan, bycatch levels dropped in the Northeast sink gillnet fishery and the mid-Atlantic gillnet fishery… Since full implementation of the Take Reduction Plan, harbor porpoise bycatch has been below PRB in several years, with numbers as low as 73 porpoises by-caught per year. The Canadian government does not impose any requirements to protect harbor porpoises") (internal citations omitted).

See also Alison McCarthy et al., Pilot Observer Programme in Irish Pelagic Trawl and Gillnet Fisheries: Implementing Council Regulation (EC) No 812/2004, (Exhibit USA- 163), p. 46 ("NMFS scientists analyzed data from previous incidental take in the gillnet fisheries of concern for bottlenose dolphins and found that incidental take had occurred at a higher rate on the vessels that used nets with larger mesh openings. Because this type of gear would be restricted under the proposed regulations, NMFS had reason to believe that these gear restrictions would result in reduced incidental take of bottlenose dolphins").

See also Young and Iudicello, Worldwide Bycatch of Cetaceans, US Department of Commerce, NOAA Tech. Memo. NMFS-OPR-36 (July 2007), (Exhibit MEX-21), p. 14 ("Solutions to the problem of cetacean entanglement have been sought in several parts of the world with a variety of techniques. No universal solution to the problem has been found, but in one or two cases some reduction in the numbers of cetaceans caught in gillnets has been accomplished through gear modifications (e.g., rigging driftnets to fish a few meters below the surface or increasing twine size) or technological aids (e.g., pingers). Because banning the use of gillnets worldwide is not an option and site-specific gear prohibitions are not always effective, approaches will have to be found on a fishery-by-fishery basis, and such solutions should consider socio-economic alternatives (e.g., eco-tourism opportunities)"); p. 252 ("Set net fishing poses a major threat to Maui's dolphins. A significant number of Maui's dolphins have been caught and killed in gill nets since 1987 when the New Zealand Department of Conservation began investigating dolphin deaths. In the early 2000s over a 20 month period, six Maui's dolphins showed signs of having been entangled in nets. [Estimated Annual Mortality] No estimates of mortality are available, but New Zealand has banned set netting along part of the North Island west coast and the Manukau Harbor entrance").

[786] Appellate Body Report, *US – Tuna II (Mexico)*, para. 270. See also para. 7.426 above.

[787] Panel Report, *US – Tuna II (Mexico),* para. 7.534.

[788] Panel Report, *US – Tuna II (Mexico),* para. 7.521.

[789] See United Nations General Assembly Res. 46/215, Large-Scale Pelagic Drift-net Fishing and Its Impact on the Living Marine Resources of the World's Oceans and Seas, (Exhibit USA-66).

[790] United States' second written submission, paras. 169-172. See also United States, Dolphin Bycatch Rate Due to Dolphin Sets in the ETP and Fisheries Where Per Set Data Are Unavailable, (Exhibit USA-133).

7.442. That said, we also note the evidence provided by the United States indicating that there are gillnet fisheries in which dolphin interactions are rare[791], and some in which no dolphin interactions are known to happen at all.[792] We agree with the United States' argument that this evidence demonstrates that although tuna gillnet fishing *can* be highly destructive to dolphins in certain areas of the world, there are other areas where this particular method does not cause such harms. This shows that, while gillnet fishing may be harmful to dolphins, it does not *necessarily* cause such harms in every area of the ocean.

7.443. We also note that the per set data on gillnet fishing, presented by the United States in the current proceedings, indicates, per 1,000 sets, mortalities of around 19 in the Northern Australia Gillnet Fishery (2000-2003); 35.4 (2014) and 24.4 (2015) in the California Drift Gillnet Fishery; and 4.6 (2010) and 0 (2011) in the California Set Gillnet Fishery.[793] In our view, this data confirms our finding that gillnet fisheries *can* be particularly harmful to dolphins, but they are not *necessarily* so in all areas of the ocean. In this regard, we also note the examples of bycatch take reduction plans and technologies used in some gillnet fisheries.[794] At a minimum, they confirm that gillnet fishing does not *necessarily* cause high levels of observable harms to dolphins and that the observable harms that it causes could be reduced.

7.444. In sum, we conclude that gillnet fishing poses high levels of observable harms to dolphins in certain areas of the ocean, but does not pose the same harms in other areas.

7.445. With respect to unobservable harms, we start our assessment by noting that the evidence on the nature of unobservable harms caused to dolphins by gillnet fishing was discussed extensively by the first compliance panel. In this regard, we find it important to note the first compliance panel's finding that none of the evidence showing that gillnets kill and seriously injure dolphins suggested that gillnets have "the same kind of unobservable effects as setting on dolphins".[795] That panel also found that even if the evidence showed that gillnets may cause eventual strangulation of dolphins that manage to break free from the net, such harms would seem clearly to be the kind of "serious injury" that is observable and that must, under the amended tuna measure, be certified.[796] We also note that the first compliance panel's assessment of the evidence pertaining to unobservable harms from gillnet fishing was upheld by the Appellate Body.[797]

7.446. With these previous findings in mind, we now turn to the evidence presented in the present proceedings regarding unobservable harms caused by gillnet fishing. In this regard, we note that Mexico has presented two new arguments and certain new evidence pertaining to indirect harms to dolphins caused by gillnet fishing, namely, "ghost fishing" and stress stemming from dolphin interaction with the net.[798]

7.447. In support of its argument regarding "ghost fishing", Mexico cites a 2015 report by NOAA, which reads in relevant parts:

> "Ghost fishing" is a part of the global marine debris issue that impacts marine organisms and the environment. Lost or discarded fishing gear that is no longer under a fisherman's control becomes known as derelict fishing gear (DFG), and it can continue to trap and kill fish, crustaceans, marine mammals, sea turtles, and seabirds.

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[791] United States' second written submission, para. 57. See also United States' third written submission, para. 59.

[792] See e.g. NMFS, Proposed Rule: List of Fisheries for 2017, 81 Fed. Reg. 54,019 (August 15, 2016), (Exhibit USA-101). See also Alison McCarthy et al., Pilot Observer Programme in Irish Pelagic Trawl and Gillnet Fisheries: Implementing Council Regulation (EC) No 812/2004, (Exhibit USA- 163), p. 7 ("There was no cetacean incidental take observed during the programme. In addition, there were no cases of cetacean 'dropout' from the nets. The chance of observers noticing cetacean bycatch was extremely high as observers were on deck at all times before, during and after hauling, with full view of the nets").

[793] United States' response to Panels' question No. 4, para. 17. See also para. 7.419 above.

[794] See para. 7.439 above.

[795] Panel Report, *US – Tuna II (Mexico) (Article 21.5 - Mexico)*, para. 7.130. See also para. 7.428 above.

[796] Panel Report, *US – Tuna II (Mexico) (Article 21.5 - Mexico)*, para. 7.130.

[797] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.200.

[798] Mexico's response to Panels' question No. 68, paras. 47-49. See also Mexico's response to Panels' question No. 92, paras. 161-162.

> The most common types of DFG to ghost fish are gillnets and crab pots/traps, with longlines and trawls less likely to do so.[799]

7.448. Having defined "ghost fishing" in this way, with respect to the harmful effects of ghost fishing linked to gillnet fishing, the report states that "ghost fishing by gillnets has an impact on a wide variety of marine life—from fish to sea birds and mammals to benthic organisms—with some of the greatest impacts on turtles".[800] Regarding the specific harms to dolphins and other marine mammals, the report indicates that derelict gillnets can represent an important share of "reported entanglements" in some areas, but the absolute numbers of marine mammals involved are relatively small.[801] These parts of the report thus suggest that ghost fishing linked to gillnets poses some risks to dolphins, although its extent is unclear.

7.449. The United States contends that "ghost fishing" does not relate to fishing in its intrinsic sense (i.e. deliberate action of catching fish), but rather to potential harms more akin to waste from a fish processing plant.[802] To the extent that this argument means that the evidence presented by Mexico on "ghost fishing" is not relevant to our analysis, we disagree. As the evidence presented by Mexico shows, "gear loss" is part of fishing operations and is duly taken into account by fishermen, especially considering its economic impact.[803] We are therefore of the view that the harms posed to dolphins by "ghost fishing" are relevant to our assessment of the risk profile of gillnet fishing.

7.450. However, we do not consider such harms to be "unobservable" given that they result from interaction with the fishing gear. In this regard, the harms caused by "ghost fishing" are of the same nature as those that flow from interactions with gillnets. These harms are thus akin to the indirect harms to dolphins caused by gillnets assessed by the panel during the first compliance proceedings (i.e. evidence of strangulation with parts of gillnets "even of dolphins that manage to break free from the net").[804] We note, in particular, that the harms from "ghost fishing" might typically not be *observed* given that the "interaction" with the gillnet will happen because of the gear parts which break free and move away from the fishing vessel.[805] This, however, does not change the observable nature of such harms. Such harms are not the *kind* of unobservable harms caused by setting on dolphins and that "may be inflicted even in cases where no dolphin is caught in the net, or where any caught dolphin is released without apparent injury"[806].

7.451. We now turn to the assessment of the evidence provided by Mexico pertaining to alleged stress to dolphins caused by gillnet fishing. Mexico considers that there is sufficient evidence on the record pertaining to the stress effects on marine mammals, including cetaceans, from being entangled in fishing nets to "raise a presumption that genuine concerns exist" that gillnet fishing

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[799] U US National Oceanic and Atmospheric Administration, Impact of Ghost Fishing via Derelict Fishing Gear (March 2015), (Exhibit MEX-104), p. 6.

[800] US National Oceanic and Atmospheric Administration, Impact of Ghost Fishing via Derelict Fishing Gear (March 2015), (Exhibit MEX-104), p. 13.

[801] US National Oceanic and Atmospheric Administration, Impact of Ghost Fishing via Derelict Fishing Gear (March 2015), (Exhibit MEX-104), p. 13 (noting that "approximately 25% of reported cetacean entanglements in Australia occurred in derelict fishing nets. … Two Indo-Pacific humpback dolphins and three Australian snubfin dolphins, both "near threatened" species, were reported to have drowned in nets in the Australian Shark Control Program between 2008 and 2011. … There are still very few controlled experiments that focus specifically on determining gillnet ghost fishing mortalities and how long they can effectively still capture organisms once they become DFG. … In another DFG "hot spot" in Puget Sound, WA, a comprehensive analysis quantified the mortality of all marine organisms recovered from 870 derelict gillnets found and included (Good et al., 2010): 960 marine fishes (22 species); 509 marine birds (15 species); 23 marine mammals (4 species); 65 species of marine invertebrates").

[802] United States' comments on Mexico's response to Panels' question No. 68, para. 62.

[803] US National Oceanic and Atmospheric Administration, Impact of Ghost Fishing via Derelict Fishing Gear (March 2015), (Exhibit MEX-104), p. 12 (summarizing gillnet loss rates for several fisheries, varying from as low as 0.02% in the North Sea and North East Atlantic to as high as 79% in the Caribbean).

[804] Panel Report, *US – Tuna II (Mexico) (Article 21.5 - Mexico)*, para. 7.130.

[805] We take note of the challenges that such harms to dolphins might pose for certification under the 2016 Tuna Measure. See Natural Resources Defense Council, Net Loss: The Killing of Marine Mammals in Foreign Fisheries, (Exhibit MEX-18), p.24 ("To make matters worse, a great deal of bycatch is simply never detected. For example, entanglements in nets that are not actively being used (known as "ghost nets") are nearly impossible to evaluate, as is "cryptic" bycatch, which occurs when animals manage to escape entanglement from active or ghost nets but then die as a result of their injuries"). We note, however, that such challenges are not particular to any specific fishing gear and would also seem to be relevant for other fishing methods, such as purse seine nets in the ETP.

[806] Panel Report, *US – Tuna II (Mexico) (Article 21.5 - Mexico)*, para. 7.134.

(and other fishing methods) cause unobservable adverse effects on dolphins.[807] In support of its argument, Mexico presents a NOAA technical memorandum reporting on a "Serious Injury Workshop" held in 1997.[808] Mexico's arguments on the stress effects on dolphins from being entangled in fishing nets are based on the reports of two distinct expert presentations made during the workshop. The first presentation covers the "immediate or short term consequences of entanglement and release from entanglement" on marine mammals[809], while the second one focuses on the "chronic effects of entanglement and other stressors on cetaceans".[810]

7.452. The Panels first note that Mexico's arguments allege that entanglement causes stress effects. We observe that the exhibit relied upon by Mexico is over twenty years old and, as noted above, is not a fully-researched and cited scientific study but the report of presentations given at a conference. This does not render this evidence irrelevant for our inquiry, but raises doubts about its probative value. We note, however, that our findings regarding the unobservable harms caused by setting on dolphins are supported by a series of scientific studies conducted and corroborated over two decades. In respect of entanglement, however, the exhibit relied upon by Mexico is not corroborated by other, more recent studies, which may suggest that the concerns raised by the two presentations were either not pursued further or else were not ultimately considered to pose a real risk to dolphins.

7.453. Moreover, we are not convinced that the conference report establishes with any degree of certainty that entanglement can lead to unobservable stress effects. As a general matter, the information regarding stress effects on dolphins in Mexico's exhibit is general in nature and does not allow us to identify the relative unobservable effects caused by different fishing gears. Moreover, it is not clear whether the fisheries discussed in the reports were tuna fisheries. We accept that reports do suggest that, *in general*, dolphins and other marine mammals may suffer from stress effects when entangled in fishing nets, including gillnets, that could lead to mortality.[811] However, such effects are physically noticeable in some circumstances.[812] Indeed, the evidence appears to suggest that in most and perhaps all cases, the stress suffered by dolphins led or contributed to observable mortality.[813]

7.454. Additionally, the reports suggest that the particular species of dolphins studied may have been "predisposed" to stress effects, which raises questions as to both the causal link between entanglement and stress effects, on the one hand, and the generalizability of this study to other dolphin species, on the other hand. We also note that the report indicates that dolphins may suffer after "exposure to chronic stress" and "long-term exposure … to high levels of adrenaline".[814] We understand this to mean that, even if entanglement is a stress factor for dolphins, dolphins do not suffer any harm as a result of being entangled once or even a few times. Rather, any serious

[807] Mexico's response to Panels' question No. 68, paras. 47-49.

[808] US Department of Commerce, Differentiating Serious and Non-Serious Injury of Marine Mammals Taken Incidental to Commercial Fishing Operations: Report of the Serious Injury Workshop 1-2 April 1997, (Exhibit MEX-105). We note that the objective of the Workshop was to explore a "broad range of guidelines that could be used to determine which marine mammals entangled in fishing gear or injured incidental to fishing operations should be considered seriously injured as a result of the encounter". The results of the workshop would be used by NMFS when developing proposed guidelines for what constitutes serious injury. See pp. 7 and 13.

[809] US Department of Commerce, Differentiating Serious and Non-Serious Injury of Marine Mammals Taken Incidental to Commercial Fishing Operations: Report of the Serious Injury Workshop 1-2 April 1997, (Exhibit MEX-105), pp. 20-24.

[810] US Department of Commerce, Differentiating Serious and Non-Serious Injury of Marine Mammals Taken Incidental to Commercial Fishing Operations: Report of the Serious Injury Workshop 1-2 April 1997, (Exhibit MEX-105), pp. 26-28.

[811] US Department of Commerce, Differentiating Serious and Non-Serious Injury of Marine Mammals Taken Incidental to Commercial Fishing Operations: Report of the Serious Injury Workshop 1-2 April 1997, (Exhibit MEX-105), p. 10 ("Marine mammals may die from physiological responses to stressful events such as live strandings, chase, capture, or interaction with fishing gear"); p. 27 ("stress has been reported to be a factor leading to mortality in several species of cetacean caught in nets").

[812] US Department of Commerce, Differentiating Serious and Non-Serious Injury of Marine Mammals Taken Incidental to Commercial Fishing Operations: Report of the Serious Injury Workshop 1-2 April 1997, (Exhibit MEX-105), p. 26 ("An early sign of eschemic injury is heart muscle fibers that appear wavy").

[813] US Department of Commerce, Differentiating Serious and Non-Serious Injury of Marine Mammals Taken Incidental to Commercial Fishing Operations: Report of the Serious Injury Workshop, 1-2 April 1997, Silver Spring, Maryland (January 1998), (Exhibit MEX-105), p. 22.

[814] US Department of Commerce, Differentiating Serious and Non-Serious Injury of Marine Mammals Taken Incidental to Commercial Fishing Operations: Report of the Serious Injury Workshop, 1-2 April 1997, Silver Spring, Maryland (January 1998), (Exhibit MEX-105), p. 26.

stress effects arise as a result of "chronic" stress. We do not, however, have any evidence suggesting that dolphins are repeatedly entangled. This contrasts with the evidence on the record that dolphins in the ETP are subject to numerous chases and encirclement every year.[815]

7.455. Finally, we note that the report repeatedly mentions that the severity of the stress effect varies from species to species of marine mammals (and even between dolphin species)[816] and depends on the "age and general health/condition of the marine mammal and the type and duration of the stressors".[817] We are thus not convinced that the evidence presented by Mexico suggests that such stress effects would occur in every instance of interaction.

7.456. In sum, we find that the evidence submitted by Mexico is not sufficient to "raise a presumption"[818] that gillnets (and other fishing gears) would cause the kinds of unobservable harms that are caused by setting on dolphins. In particular, we do not consider that the report submitted by Mexico, at least without further corroboration, is sufficient to raise a presumption that entanglement causes acute unobservable stress effects similar to those caused by setting on dolphins.

7.457. Accordingly, on the basis of the evidence before us, we conclude that gillnet fishing can pose particularly high levels of observable harms to dolphins in certain areas of the ocean. We have also found, however, that in some gillnet fisheries dolphin interactions are rare, while in others dolphin interactions are not known to happen at all. In our view, the available per set data on the record confirms our finding that gillnet fisheries can be particularly harmful to dolphins, but are not necessarily so in all areas of the ocean. Additionally, we have found that the evidence on the record pertaining to "ghost fishing" and stress stemming from dolphin interactions with fishing nets does not support a finding that gillnet fishing causes the kinds of unobservable harms caused by setting on dolphins.

7.7.2.4 Longline fishing

7.7.2.4.1 Introduction

7.458. We now turn to consider the evidence relating to longline fishing. The FAO explains that:

> Tuna longlining is a passive type of fishing technique making use of lines with baited hooks as fishing gear. Midwater longlining allow catches of fish in midwater and near surface (while casting and retrieving). Midwater longlining for tuna … is now a widely used method for catching tunas in the depth range from the subsurface up to 300m … A typical set consists of 200 or more units or "baskets" connected together, with a buoy at each connection, and a total of about 3000 hooks. … [The hooks are] set over a total distance of about 100 km.[819]

7.459. According to Mexico, the association between dolphins and longline fishing is well-established. Mexico argues that dolphins are attracted to fish on longlines[820], and it is widely recognized that dolphins are severely harmed by this interaction (called "depredation") with longline hooks.[821] In Mexico's view, longline fishing kills tens of thousands of dolphins per year[822] and these mortalities are threatening the viability of dolphin stocks in some fisheries.[823]

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[815] See Stephen B. Reilly et al., Report of the Scientific Research Program Under the International Dolphin Conservation Program Act (2005) (Exhibit USA-47), p. 26; Elizabeth Edwards, Fishery Effects on Dolphins Targeted by Tuna Purse-Seiners in the Eastern Tropical Pacific Ocean, 20 Int'l J. Comp. Psychology (2007) (Exhibit USA-140), p. 218.

[816] US Department of Commerce, Differentiating Serious and Non-Serious Injury of Marine Mammals Taken Incidental to Commercial Fishing Operations: Report of the Serious Injury Workshop 1-2 April 1997, (Exhibit MEX-105), pp. 21-24 and 27-28.

[817] US Department of Commerce, Differentiating Serious and Non-Serious Injury of Marine Mammals Taken Incidental to Commercial Fishing Operations: Report of the Serious Injury Workshop 1-2 April 1997, (Exhibit MEX-105), pp. 10-11.

[818] Panel Report, *US – Tuna II (Mexico)*, para. 7.737.

[819] FAO, Industrial Tuna Longlining, (Exhibit MEX-26), pp. 2-3.

[820] Mexico's response to Panels' question No. 90, para. 159.

[821] Mexico's second written submission, para. 92.

[822] Mexico's first written submission, para. 105.

[823] Mexico's second written submission, para. 71.

7.460. Mexico also argues that dolphins suffer serious injury as a result of interactions with longliners. According to Mexico, even when dolphins do not immediately die from an interaction with a longline, they are at risk of becoming hooked on longlines[824] and maiming their mouths, dorsal fins, and other body parts, as well as from eventual drowning when they cannot free themselves from the hooked lines.[825] Moreover, Mexico maintains that longlining may cause unobservable harms because harms to dolphins from longlines can occur deep underwater or miles away from the vessel, where they cannot be seen even by an observer.[826] Additionally, Mexico argues that longlining, together with gillnets, is a source of "ghost fishing", where lost equipment adrift in the ocean can continue to kill dolphins and other sea life on their own[827], as well as of stress caused by interactions with the net.[828]

7.461. Finally, Mexico also notes that there are no comprehensive programs to monitor the harms caused to dolphins by longline fishing, and argues that data collection is further complicated by the fact that lines can be as long as 90 miles in length, which may impair the ability of observers to see deaths and injuries as they are occurring.[829]

7.462. In the United States' view, longlining is significantly less dangerous to dolphins than setting on dolphins.[830] The United States argues that the vast majority of longlining occurs without any dolphin interaction, and thus puts no dolphins at risk of harm.[831] Indeed, according to the United States, depredation is contrary to the economic interests of longline fishers because it removes or damages commercially valuable catch, and accordingly longline fisherman actively avoid dolphin interaction.[832] At any rate, in the United States' view, only a small fraction of depredation events result in the death of the depredating dolphin.[833] Moreover, the United States argues that marine mammals are not dispersed uniformly and therefore do not interact with longline gear consistently across the ocean.[834]

7.463. With respect to observed mortalities, the United States considers that, on a per set basis, dolphin mortality levels in longline fisheries are small fractions of dolphin mortality due to dolphin sets in the ETP.[835] The United States also argues that Mexico's evidence about the PBR levels of different fisheries are inapposite, because the number of dolphins killed or seriously injured by longlining is, on an annual basis, a fraction of the number of dolphins killed in dolphin sets in the ETP.[836]

7.464. With respect to unobserved harms, the United States argues that there is no evidence in support of Mexico's view that injuries in longline fisheries can occur out of sight of the observer.[837] According to the United States, a dolphin becoming hooked on a longline is exactly the type of direct, observable mortality that would render a set not dolphin safe.[838]

7.465. Finally, the United States argues that the first compliance panel already found, and the Appellate Body accepted, that longlining does not cause the kinds of unobservable harms caused by setting on dolphins.[839]

7.7.2.4.2 Panels' assessment in the present proceedings

7.466. The Panels now turn to our assessment of the risk profile of longline fishing. We start by recalling the first compliance panel's finding that in those proceedings Mexico had presented "convincing evidence" that "longline fishing operations kill and maim dolphins". The first

[824] Mexico's response to Panels' question No. 116, para. 236.
[825] Mexico's first written submission, para. 103.
[826] Mexico's response to Panels' question No. 68, para. 43.
[827] Mexico's response to Panels' question No. 68, para. 44.
[828] Mexico's response to Panels' question No. 92, para. 162.
[829] Mexico's first written submission, para. 95.
[830] United States' first written submission, para. 95.
[831] United States' second written submission, para. 94.
[832] United States' second written submission, para. 96.
[833] United States' third written submission, para. 89.
[834] United States' second written submission, para. 99.
[835] United States' second written submission, para. 95.
[836] United States' second written submission, para. 98.
[837] United States' comments on Mexico's response to Panels' question No. 68, para. 62.
[838] United States' comments on Mexico's response to Panels' question No. 68, para. 62.
[839] United States' second written submission, para. 94.

compliance panel further found that the evidence presented by Mexico suggested that, at least in some fisheries, longlining was having a negative effect on the sustainability of dolphin populations.[840]

7.467. In the present proceedings, Mexico has once again presented a series of reports concerning the negative effects that longline fishing is causing to dolphins in different areas of the ocean.[841] Among such reports, we note, in particular, a report published by the Sea Turtle Restoration Project on longline fishing estimating that over 18,000 dolphins are killed annually by longline fishing in the Pacific Ocean.[842] The report estimates the value of absolute annual mortality in the region by extrapolating bycatch information from the Hawaii longline fishery from 1994 to 2002.

7.468. The United States does not seem to contest the fact that longline fishing is capable of causing such observable harms. However, the United States disputes that the evidence available on the record demonstrates that longline fishing causes observable harms at the same level as is caused by setting on dolphins.[843] According to the United States, the manner in which Mexico presented its evidence does not allow for an "apples-to-apples" comparison, given that it compares many different longline fisheries involving about 4,800-6,300 active vessels to 80-90 large purse seine vessels authorized to set on dolphins in the ETP.[844] We find such argument compelling, particularly for the reasons we have already explained above.[845] When the available bycatch data on the Hawaii longline fishery is assessed under the per set methodology, for instance, it reveals a relatively low rate of dolphin interactions (2.63 per 1000 sets from 2004 to 2015).[846]

7.469. In this regard, we note that the data in Exhibit USA-179 Rev. concerning dolphin mortalities in longline fisheries, which we reproduce below, is as follows:[847]

Fishery	YEAR	OBSERVED SETS	OBSERVED MORTALITY	OBSERVED INJURY/ RELEASED ALIVE	MORTALITY PER 1000 SETS	MORTALITY OR INJURY/ RELEASED ALIVE PER 1000 SETS[848]
Hawaii Deep-set Longline	2009	3,520	1	13	0.28	3.98
	2010	3,580	0	9	0	2.51
	2011	3,540	1	5	0.28	1.69
	2012	3,659	0	5	0	1.37
	2013	3,830	4	7	1.04	2.87
	2014	3,831	0	13	0	3.39
	2015	3,728	2	8	0.54	2.68
	2016 (3 quarters)	2,801	0	6	0	2.14
	Total	28,489	8	66	0.28	2.60
American Samoa Longline	2009	306	0	0	0	0.00
	2010	798	0	0	0	0.00
	2011	1,257	0	10	0	7.96
	2012	662	0	0	0	0.00
	2013	585	1	1	1.71	3.42
	2014	565	0	1	0	1.77
	2015	504	1	1	1.98	3.97
	2016 (3 quarters)	230	2	1	8.7	13.04
	Total	4,907	4	14	0.82	3.67

[840] Panel Report, *US – Tuna II (Mexico) (Article 21.5 - Mexico)*, para. 7.131.
[841] Mexico's first written submission, paras. 90-105.
[842] Sea Turtle Restoration Project, Pillaging the Pacific, (Exhibit MEX-34). We note that the same report was presented and assessed by the panel during the first compliance proceedings (Panel Report, *US – Tuna II (Mexico) (Article 21.5 - Mexico)*, para. 7.132).
[843] United States' second written submission, para. 101.
[844] United States' second written submission, para. 99.
[845] See Section 7.7.1.2 above.
[846] Exhibit USA-179.Rev., p. 6.
[847] Exhibit USA-179.Rev. (with additional corrections and calculations by the Panels).
[848] We arrive at this figure by adding the number of "observed mortalities" and of "observed injuries / released alive", multiplying the sum by 1000 and dividing it by the total number of "observed sets".

Fishery	YEAR	OBSERV-ED SETS	OBSERVED MORTALITY	OBSERVED INJURY/ RELEASED ALIVE	MORTALITY PER 1000 SETS	MORTALITY OR INJURY/ RELEASED ALIVE PER 1000 SETS[849]
Atlantic HMS Pelagic Longline	2009	1,376	1	19	0.73	14.53
	2010	725	2	19	2.76	28.97
	2011	864	1	34	1.16	40.51
	2012	945	1	29	1.06	31.75
	2013	1,474	0	38	0.00	25.78
	2014	1,247	0	29	0.00	23.26
	Total	6,631	5	168	0.75	26.09
Uruguay Atlantic Longline	2004	1,348	0	1	0	0.74
	2005	1,470	0	2	0	1.36
	2006	933	0	0	0	0
	2007	586	0	0	0	0
	Total	4,337	0	3	0	0.69
Mediterranean Pelagic Longline	2000-2009	2,587	8	49 (36 release alive, 13 unknown status)	3.09	22.03
Chinese Taipei Longline	2004-2008	4,409	0	0	0	0
EU Atlantic Longline	2006-2007	635	2		3.15	-
Chinese Taipei Atlantic Longline	2007	2,117 (est.)	1		0.47	-

Fishery	YEAR	OBSERVED SETS	OBSERVED CAPTURES	POSSIBLE MORTALITY PER 1000 SETS
Australia Eastern Tuna & Billfish Longline	2010	196 (est.)	3	15.31 (est.)
	2011	289 (est.)	2	6.92 (est.)
	2012	274 (est.)	0	0 (est.)
	2013	288 (est.)	2	6.94 (est.)
	2014	134 (est.)	1	7.46 (est.)
	2015	333 (est.)	0	0 (est.)
	Total	1,514 (est.)	8	5.28 (est.)
Japan Longline	2014	1,369	6 (marine mammals)	4.38
	2015	1,740	11 (marine mammals)	6.32

7.470. From the available data on the record, it appears that the dolphin mortality rate per 1000 sets in longline fisheries is consistently low, with many years in different fisheries registering no known mortality or captures.[850] Indeed, the highest available rate of possible dolphin mortalities associated with longline fisheries is 15.31 dolphins per 1000 sets in the Australia Eastern Tuna and Billfish Longline in 2010.

7.471. We also note that even when considering the total rate of interactions per 1000 sets, longline fishing does not appear to cause particularly high levels of observable harms to dolphins. Accordingly, when adding the data available on the record for "observed injuries" to dolphins and "dolphins released alive" (non-deadly interactions) to the observed dolphin mortalities, the

[849] We arrive at this figure by adding the number of "observed mortalities" and of "observed injuries / released alive", multiplying the sum by 1000 and dividing it by the total number of "observed sets".

[850] We further note that additional observer evidence on a non-per set basis available on the record demonstrates that dolphin bycatch in several longline fisheries is rare. The fisheries covered include: Tongan EEZ Longline in 2008 (no observed incidents); Western Tropical Pacific shallow-set and dee-set longline fisheries and the Western South Pacific Albacore fishery in 2010 (marine mammal interactions were "very low"); WCPFC Chinese Taipei longline from 2004-2013 (observed cetacean mortality was from 0 to 2 animals per year) and in 2014 and 2015 (2 and 1 cetaceans caught, respectively); WCPFC longline fisheries of Korea in 2014 and 2015 (0 dolphin mortality or injury), Australia in 2015 (1 dolphin mortality and 6 interactions) and Solomon Islands in 2015 (0 dolphin mortality or injury). See Exhibit USA-179.Rev.

resulting rate of interaction per 1000 sets is in the majority of cases a fraction of the dolphin mortalities in the ETP. The highest rates are found in the US Atlantic HMS Pelagic Longline, where the rate of non-deadly interactions is substantially higher than the mortality rate. However, even in this case, the highest rates of interaction are 40.51 in 2011 and 52.29 in 2005, figures significantly below the lowest mortality rates on the record for setting on dolphins in the ETP.[851]

7.472. Mexico argues that, in addition to this data, the Panels must take account of the fact that there is a "strong possibility that false killer whales, and possibly also other small cetacean species, are being shot by tuna longline fishermen within the Indian Ocean".[852] Such reports are concerning, but Mexico has provided no evidence regarding the *extent* of such incidents. Moreover, given the generally low levels of dolphin interaction with longliners, we consider that, at least without more detailed evidence, we cannot conclude that shooting represents a very serious threat to dolphins in some or all longline fisheries.

7.473. Before concluding our review of the observable harms caused by longlining in different areas of the ocean, we note that much of Mexico's argument regarding the observable harms to dolphins caused by longline fishing relates to its effects on the sustainability of some dolphin stocks. In particular, Mexico presents data summarized in Exhibit MEX-95 pointing to three longline fisheries whose PBR for some dolphin species are close to their limits (Main Hawaii Island Insular Stock Longline fishery[853] and West North Atlantic Longline[854]) or over the limits (Pelagic Hawaii Longline fishery[855]). We note that the low PBR values for these dolphin stocks are a result of the limited number of dolphins in the stocks affected by these longline fisheries. Consequently, even a few mortalities per year might affect their sustainability. However, worrisome though these low PBR levels may be for the population-level conservation of particular stocks, they are not in our view necessarily apposite for the purposes of determining the risk profiles under the Tuna Measure, which, as already described, is mainly concerned with the risks facing dolphins at an *individual* level, rather than at a population level. As we have explained above, the PBR level of a particular dolphin stock is not necessarily indicative of the number of dolphins killed by a particular fishing method in a particular area of the ocean. This is because, depending on the size of a particular dolphin stock, a stock may be sustainable even if a large number of individual dolphins are killed each year. Conversely, the sustainability of a small stock may be threatened if even a single dolphin is killed. The Tuna Measure, however, is concerned with the relative mortality and serious injury caused to individual dolphins by different fishing methods in different areas of the ocean, concerning which PBR levels are not necessarily probative.

7.474. We also note that, as pointed out by Mexico, the United States is implementing other measures to protect these dolphins stocks.[856] We do not consider that these additional measures, which are not part of the measure at issue in these proceedings, undermine our assessment that longlining causes relatively low levels of observable harms to dolphins. In our view, it would not be inherently inconsistent for the United States (or any other Member) to pursue a certain dolphin-related policy through a given measure (e.g. discouraging fishing methods that cause dolphin mortality or serious injury by denying tuna caught in sets that harm dolphins access to a dolphin-safe label), and to pursue another, complementary dolphin-related policy through another measure (e.g. a measure aimed at preserving dolphin stocks at a population level, without regard to mortality or serious injury of individual dolphins). Accordingly, we do not agree with Mexico that the United States' adoption of different measures concerned with dolphin populations shows that

[851] See Exhibit USA-179.Rev., p. 6.

[852] Mexico's second written submission, para. 72.

[853] For which the average annual rate of mortalities and serious injuries to false killer whales from 2009 to 2013 is 83% of the PBR. See Table summarizing the data available regarding the relative overall risks of adverse effects on dolphins caused by different fishing methods in different ocean areas, (Exhibit MEX-95), p. 2.

[854] For which the average annual rate of mortalities and serious injuries to short finned pilot whales from 2009 to 2013 is 93% of the PBR. See Table summarizing the data available regarding the relative overall risks of adverse effects on dolphins caused by different fishing methods in different ocean areas, (Exhibit MEX-95), p. 3.

[855] For which the average annual rate of mortalities and serious injuries to false killer whales from 2009 to 2013 is above the PBR. See Table summarizing the data available regarding the relative overall risks of adverse effects on dolphins caused by different fishing methods in different ocean areas, (Exhibit MEX-95), p. 3.

[856] Mexico's second written submission, paras. 96-98. See also Mexico's response to Panels' question No. 67, para. 41.

longlining must be considered highly dangerous under the scheme established by the Tuna Measure.

7.475. In sum, for the reasons given above, we see no reason to deviate from the first compliance panel's finding that some longline fisheries are likely having a negative effect on the sustainability of some dolphin populations. Moreover, we accept the evidence that dolphins may suffer some observable mortality and serious injury as a result of longlining in some fisheries. However, we note that some longline fisheries present no known risks of observable harms to dolphins,[857] while in the ones that do present some level of risk, such levels are, in general, relatively low. We also find that, on a per set basis, longline fishing presents a relatively low level of observable harms to dolphins.

7.476. We next turn to Mexico's arguments regarding the unobservable effects to dolphins arising from longline fishing in different parts of the ocean. First, in Mexico's view, longlining may cause unobservable harms, because, harms to dolphins from longlines can occur deep underwater or miles away from the vessel, where they cannot be seen even by an observer.[858]

7.477. We note that this argument by Mexico is not different in nature to its argument presented during the first compliance proceedings. During those proceedings, Mexico argued that even when dolphins do not "immediately die from an interaction with a longline", they are at risk to suffer from other harms and eventual drowning when they "cannot free themselves from the lines".[859] The first compliance panel found that such harms flow from interactions that are themselves "observable" and are not the kind of unobservable harm that occurs as a result of setting on dolphins, and which cannot be certified because it leaves no observable evidence.[860]

7.478. We see nothing in the evidence presented by Mexico in the course of the present proceedings to deviate from this finding by the first compliance panel. Accordingly, even if part of the harms to dolphins caused by longline fishing might not be *observed* because the harm occurs "away from the vessel", these are nevertheless not the *kind* of unobservable harms caused by setting on dolphins and that "may be inflicted even in cases where no dolphin is caught in the net, or where any caught dolphin is released without apparent injury". Rather, as the first compliance panel found, they are the kind of harms that "flow from mortalities or injuries that are themselves observable, and whose occurrence renders non-dolphin-safe all tuna caught in the set or gear deployment in which the injury or mortality was sustained".[861]

7.479. Moreover, even accepting that dolphins may suffer unobserved harms as a result of interactions away from the vessel, the evidence suggests to us that the risk of such harms is relatively small. This is because, based on the data on the record concerning observed interactions, dolphin interactions with longlines appear to be relatively low, and thus the chance of unobserved harms is also likely to be relatively small. In this connection, we note that dolphin interactions may undermine the commercial viability of longlining, and thus longliners have developed techniques to *avoid* such interactions.[862] This, in our view, likely reduces the extent of dolphin interaction, and thus the risk of unobserved mortality or serious injury. Indeed, based on the number of observed interactions, it seems to us that even if a significant percent of interacting dolphins suffered unobserved mortality or serious injury as a result of their interaction with longlines (and the evidence on the record does not suggest that that is the case), the low levels of recorded interaction indicates that the number of dolphins that may suffer unobserved mortality or serious injury would still be relatively low. Accordingly, we consider that the possibility of unobserved mortality or serious injury is real but likely to be relatively low.

7.480. We also note the arguments presented by Mexico regarding unobservable harms caused by longline fishing in respect of derelict fishing gear (ghost fishing) and the stress of interaction with

[857] NMFS, Proposed Rule: List of Fisheries for 2017, 81 Fed. Reg. 54,019 (August 15, 2016), (Exhibit USA-101).

[858] Mexico's response to Panels' question No. 68, para. 43.

[859] Panel Report, *US – Tuna II (Mexico) (Article 21.5 - Mexico)*, paras. 7.131-7.132.

[860] Panel Report, *US – Tuna II (Mexico) (Article 21.5 - Mexico)*, para. 7.132.

[861] Panel Report, *US – Tuna II (Mexico) (Article 21.5 - Mexico)*, para. 7.134.

[862] Megan J. Peterson et al., Killer Whale (Orcinus orca) Depredation Effects on Catch Rates of Six Groundfish Species: Implications for Commercial Longline Fisheries in Alaska, 70 ICES J. of Marine Science 1220 (2013), (Exhibit USA-68), p. 1228.

the net or hook.[863] We note that the same arguments were raised by Mexico in respect of the "unobservable" harms caused to dolphins by gillnet "ghost fishing" and by the interaction with gillnet fishing gear. We finally note that the evidence presented by Mexico to substantiate both arguments does not differentiate these harmful effects to dolphins arising from gillnet or longline fishing gears.[864] Insofar as the nature of such effects is not different when caused by gillnet or longline fishing gears, we see no reason to modify our assessment of the evidence as it relates to longline fishing. In our view, therefore, as was the case for gillnet fishing, the evidence on the record does not suggest that longline "ghost fishing" causes the *kind* of unobservable harms caused by setting on dolphins and that may be inflicted even in cases where no dolphin is caught in the net, or where any caught dolphin is released without apparent injury. Similarly, we do not consider the evidence on the record to be sufficient to raise a presumption that interaction with longline gear (depredation) causes acute unobservable stress effects similar to those caused by setting on dolphins.

7.481. Accordingly, we find that while longlining does cause mortality and serious injury to dolphins, its risk profile in terms of observable harms is low. Additionally, we consider that the evidence does not support a finding that longlining is capable of causing the kinds of unobservable harms caused by setting on dolphins.

7.7.2.5 Trawl fishing

7.7.2.5.1 Introduction

7.482. The Panels now turn to consider the risk profile associated with trawl fishing. According to the FAO:

> Trawling is the operation of towing a net to catch fish and/or shellfish. The trawls are towed either with bottom contact or in midwater. Different devices provid[e] the forces to keep the trawls open horizontally … The catch principle is filtering the water. The towing speed varies, according to the type of trawl and trawling, to the target species, etc., from 1 to 7 knots, the most common being 3 to 5.[865]

7.483. Mexico argues that trawl fishing is a highly destructive fishing method that kills dolphins in many types of fisheries.[866] According to Mexico, trawl fishing has a very high risk profile, which is greater than that of setting on dolphins practiced under the regulations of the AIDCP.[867] Moreover, Mexico recalls that the panels in both the original and the first compliance proceedings found that dolphins are killed in trawl nets.[868]

7.484. The United States argues that trawling is less dangerous to dolphins than other fishing methods used to catch tuna.[869] Further, according to the United States, the evidence establishes that trawl fishing does not intentionally target dolphins, and there is no evidence suggesting that trawling is capable of causing the type of unobservable effects caused by dolphin sets that can occur in the absence of direct dolphin mortalities. The United States therefore contends that trawl fishing for tuna has a lower risk profile for dolphins than setting on dolphins in the ETP large purse seine fishery.[870]

7.485. We begin our analysis by recalling that the first compliance panel found that trawl fishing may cause mortality and serious injury to dolphins. The panel did not, however, make specific findings about the extent of harms suffered by dolphins as a result of trawling. Moreover, the first compliance panel explicitly found that the evidence did not support a finding that trawling causes

[863] Mexico's response to Panels' question No. 68, paras. 44 and 47. See also Mexico's response to Panels' question No. 92, para. 162.
[864] US National Oceanic and Atmospheric Administration, Impact of Ghost Fishing via Derelict Fishing Gear (March 2015), (Exhibit MEX-104); US Department of Commerce, Differentiating Serious and Non-Serious Injury of Marine Mammals Taken Incidental to Commercial Fishing Operations: Report of the Serious Injury Workshop 1-2 April 1997, (Exhibit MEX-105).
[865] FAO, Trawl Nets, (Exhibit MEX-37).
[866] Mexico's second written submission, para. 75.
[867] Mexico's response to Panels' question No. 65, para. 34.
[868] Mexico's first written submission, para. 107.
[869] United States' second written submission, para. 109.
[870] United States' third written submission, para. 103.

the kind of unobservable harms caused by setting on dolphins in the ETP.[871] Additionally, we note that the original panel found that "[t]rawl fishing is another method that may be employed to harvest tuna, and that may also produce dolphin bycatch".[872] Like the first compliance panel, however, the original panel did not describe in detail the extent of dolphin bycatch caused by trawling. Additionally, the original panel did not find that trawling causes the kind of unobservable harms caused by setting on dolphins in the ETP.

7.7.2.5.2 Panels' assessment in the present proceedings

7.486. We note that both parties recognize that trawling may harm dolphins. In the absence of detailed findings by the previous panels, however, it is necessary for us to review the evidence to determine more precisely the risk profile of trawling.

7.487. We note that trawl fishing is used in a number of different oceans, and is often used in non-tuna fisheries. Indeed, evidence on the record suggests that due to its slow speed, trawling is not well-suited to catching tuna, and that therefore "tuna is very rarely a target catch of trawl fishing".[873] Nevertheless, because it can be, and sometimes is, used to catch tuna, it is necessary for us to carefully examine the impact that trawling for tuna may have on dolphins.

7.488. We note that the evidence generally shows that trawling can result in dolphin mortalities. On the whole, however, the risks do not appear to be particularly high. The FAO, for example, has observed that "bycatch rates of other species [i.e. other than that target fish] are low", although in the same document it recognized that "[o]n [a] few fishing ground[s] the incidental catch of dolphins and marine mammals create some problems".[874] Similarly, an article entitled "Observations on incidental catch of cetaceans in three landing centres along the Indian coast" by K.S.S.M. Yousuf and others indicates that although "[e]ntanglement of cetaceans in … fishing gears such as trawls … has also been reported"[875], "trawlers cause less mortality of marine mammals compared to gillnetters and purse-seiners". According to the article, this "could be explained by the disturbance caused by the trawling action at the bottom and at midwater warning cetaceans before they can get caught".[876]

7.489. The other exhibits submitted by the parties show a somewhat mixed picture, which may reflect the fact that, as one scientific study puts it, "dolphin bycatch in pair-trawl fisheries is a sporadic event".[877] Thus, evidence on the record suggests that in the Pilbara Trawl Fishery[878] in North-Western Australia, 500 bottlenose dolphins were killed between 2003 and 2012, with 12.6 dolphin mortalities per 1000 trawls based on observer information.[879] Similarly, the evidence suggests that in the Eastern North Atlantic, between 2003 and 2009, a mean of 189 dolphins per year were bycaught in trawl tuna fisheries.[880] This figure elides the apparent yearly fluctuation in dolphin mortalities. For example, in 2006 and 2008 no dolphin bycatch was observed, whereas in 2009, 904 dolphins were killed. It is not possible to determine a per set equivalent for this figure, as Exhibit MEX-120 does not indicate the total number of sets carried out. Moreover, we observe that this data is taken from European, French, and British vessels, and accordingly it appears that the figures cover more than one fishery.

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[871] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.132.
[872] Panel Report, *US – Tuna II (Mexico)*, para. 7.521.
[873] William Jacobson Witness Statement (May 26, 2014), (Exhibit USA-52), p. 3.
[874] FAO, Tuna Midwater Pair Trawling, (Exhibit USA-162), p. 2.
[875] K.S.S.M. Yousuf, et al., Observations On Incidental Catch Of Cetaceans In Three Landing Centres Along The Indian Coast, Marine Biodiversity Records, Vol. 2 (2009), (Exhibit MEX-17), p. 1.
[876] K.S.S.M. Yousuf, et al., Observations On Incidental Catch Of Cetaceans In Three Landing Centres Along The Indian Coast, Marine Biodiversity Records, Vol. 2 (2009), (Exhibit MEX-17), p. 4.
[877] L. Mannocci et al., Assessing the Impact of Bycatch on Dolphin Populations: the Case of the Common Dolphin in the Eastern North Atlantic, Plos One 7(2) e32615 (February 2012), (Exhibit MEX-120), p. 8.
[878] S. Allen et al., Patterns of Dolphin Bycatch in a North-Western Australian Trawl Fishery, PLOS ONE, Vol. 9, Issue 4 (April 2014), (Exhibit MEX-72) does not indicate whether tuna is caught in this fishery.
[879] K.S.S.M. Yousuf, et al., Observations On Incidental Catch Of Cetaceans In Three Landing Centres Along The Indian Coast, Marine Biodiversity Records, Vol. 2 (2009), (Exhibit MEX-72), p. 4. Skipper logbooks recorded lower bycatch rate of 6.5 dolphin mortalities per 1000 trawls.
[880] L. Mannocci et al., Assessing the Impact of Bycatch on Dolphin Populations: the Case of the Common Dolphin in the Eastern North Atlantic, Plos One 7(2) e32615 (February 2012), (Exhibit MEX-120), p. 5 (based on the data in Table 1, column "Oceanic stock", which represents the dolphins bycaught in fisheries whose target species was tuna).

7.490. It is possible to calculate a per set equivalent on the basis of Exhibit MEX-71, which contains a Greenpeace article on trawl fishing in the North Atlantic. This article states that "[o]bservers of pair trawling in 2001 saw 53 dolphins killed in 116 hauls of the net; with two Irish boats in 1999, 145 dolphins were killed in 313 hauls".[881] We note, however, that the article, which is popular rather than scientific, does not identify the source of its data, and neither does it indicate whether these dolphins were killed in tuna fisheries. Moreover, and in our view importantly, it does not account for the evident fluctuations in dolphin bycatch (as evidenced, for example, in Exhibit MEX-120). In our view, these fluctuations are very important to understanding the risks caused to dolphins by trawling in different areas of the ocean, because focusing on one particularly harmful year without noting the general trends in other years could give a biased overall view of the fishery. Accordingly, we do not consider this article to be very probative. Nevertheless, we note that these figures, taken at face value, would suggest a per set equivalent of approximately 450 dolphins killed per 1000 trawls.

7.491. The most detailed evidence we have relates to trawl fishing in and around Ireland. We note that the original panel accepted evidence showing that "an experimental fishery involving pair trawling for tuna, which was conducted by the Republic of Ireland in 1998 and 1999, during which period it recorded a total catch of 180 cetaceans".[882] We also note, however, that more recent data from the Irish pelagic trawl fishery dating from 2010-2011 and 2011-2012, based on at least 10% observer coverage of the fishery in 2010-2011[883] and 100% coverage in 2011-2012[884], found that no dolphins were killed as a result of trawling for albacore tuna.[885] We also observe that the report from the 2011-2012 fishery states that "[c]ommon dolphins were reported bow-riding fishing vessels but not interacting with the fishery"[886] and "[b]ottlenose dolphins were sighted in transit from the fishing grounds"[887], suggesting that although there are dolphins in the vicinity of the fishery, they do not commonly interact with the fishing vessels. Indeed, the report itself concludes that "during the albacore tuna fishery … [cetacean] interactions with fishing operations were negligible"[888], and notes that "[c]onfirmed incidences of interactions with fishing vessels were restricted to either bow-riding or competing with the vessels for fish … however none of these interactions led to bycatch".[889]

7.492. Having said that, we also note that the report from the 2011-2012 fishery states that the "[f]ailure to record cetacean bycatch during this study does not imply that it does not occur in these fisheries but may indicate that it is a catastrophic rather routine occurrence".[890] Moreover, it

[881] Greenpeace International, Dolphins die in trawler nets, (Exhibit MEX-71).

[882] UK House of Commons Environment, Food and Rural Affairs Committee, Caught in the net: bycatch of dolphins and porpoises off the UK Coast (21 January 2004), (Exhibit MEX-121), p. 32; see also Panel Report, *US – Tuna II (Mexico)*, para. 7.521, fn. 734.

[883] Alison McCarthy et al., Pilot Observer Programme in Irish Pelagic Trawl and Gillnet Fisheries: Implementing Council Regulation (EC) No 812/2004 (2011), (Exhibit USA-163), p. 1.

[884] John Boyd et al., Report on the Pilot Observer Programme in Irish Pelagic Trawl Fisheries: Implementing Council Regulation (EC) No 812/2004 (2012), (Exhibit USA-164), p. 7.

[885] Alison McCarthy et al., Pilot Observer Programme in Irish Pelagic Trawl and Gillnet Fisheries: Implementing Council Regulation (EC) No 812/2004 (2011), (Exhibits USA-163), pp. 8-10 and John Boyd et al., "Report on the Pilot Observer Programme in Irish Pelagic Trawl Fisheries: Implementing Council Regulation (EC) No 812/2004" (2012), (USA-164), pp. 8-9.

[886] Alison McCarthy et al., Pilot Observer Programme in Irish Pelagic Trawl and Gillnet Fisheries: Implementing Council Regulation (EC) No 812/2004 (2011), (Exhibits USA-163), pp. 8-10 and John Boyd et al., "Report on the Pilot Observer Programme in Irish Pelagic Trawl Fisheries: Implementing Council Regulation (EC) No 812/2004" (2012), (Exhibit USA-164), p. 16.

[887] Alison McCarthy et al., Pilot Observer Programme in Irish Pelagic Trawl and Gillnet Fisheries: Implementing Council Regulation (EC) No 812/2004 (2011), (Exhibits USA-163), pp. 8-10 and John Boyd et al., "Report on the Pilot Observer Programme in Irish Pelagic Trawl Fisheries: Implementing Council Regulation (EC) No 812/2004" (2012), (Exhibit USA-164), p. 17.

[888] Alison McCarthy et al., Pilot Observer Programme in Irish Pelagic Trawl and Gillnet Fisheries: Implementing Council Regulation (EC) No 812/2004 (2011), (Exhibits USA-163), pp. 8-10 and John Boyd et al., "Report on the Pilot Observer Programme in Irish Pelagic Trawl Fisheries: Implementing Council Regulation (EC) No 812/2004" (2012), (Exhibit USA-164), p. 34.

[889] Alison McCarthy et al., Pilot Observer Programme in Irish Pelagic Trawl and Gillnet Fisheries: Implementing Council Regulation (EC) No 812/2004 (2011), (Exhibits USA-163), pp. 8-10 and John Boyd et al., Report on the Pilot Observer Programme in Irish Pelagic Trawl Fisheries: Implementing Council Regulation (EC) No 812/2004" (2012), (Exhibit USA-164), p. 34.

[890] Alison McCarthy et al., Pilot Observer Programme in Irish Pelagic Trawl and Gillnet Fisheries: Implementing Council Regulation (EC) No 812/2004 (2011), (Exhibits USA-163), pp. 8-10 and John Boyd et al., Report on the Pilot Observer Programme in Irish Pelagic Trawl Fisheries: Implementing Council Regulation (EC) No 812/2004 (2012), (Exhibit USA-164), p. 34.

notes that "[t]he limited number of cetacean observations recorded on other fishing grounds may be in part be due to shorter day length and less favourable winter sea conditions".[891] Also of note is the report's observation that there was an increase in cetacean stranding reports during January-March 2011 and January-March 2013, with 47% of dolphins reported stranded in 2011 and 27% of dolphins reported stranded in 2013 showing "lesions consistent with fisheries bycatch".[892] Nevertheless, the report ultimately considers that bycatch in this fishery seems to be "infrequent".[893]

7.493. On the basis of the evidence before us, it appears that trawling has the potential to harm dolphins. Although much of the evidence on the record relates to non-tuna fisheries, we consider that this evidence, together with the evidence that does relate to tuna fisheries, show that dolphins may be killed as a result of tuna trawling. In our view, the evidence suggests that observed mortalities are very low in some fisheries and moderate in others. It also suggests that there may be some unobserved mortality and serious injury resulting from trawling for tuna. However, given that the evidence suggests that interaction with dolphins is generally low, we do not consider that the extent of unobserved mortality or serious injury is likely to be very high.

7.494. In our view, the evidence establishes that trawling may pose some risk to dolphins. However, it appears from the evidence to be a low-to-moderate risk fishing practice. First, the evidence makes clear that trawling can be, and in many instances actually is, carried on without interacting with dolphins. Dolphins are not an essential or an inherent part of this fishing method. Second, the evidence relating to observed mortalities shows that, with some exceptions, mortality caused by trawling is generally low, especially when considered on a per set basis. The only exhibit suggesting a high per set mortality rate is the article by Greenpeace submitted by Mexico. However, as we explained above, we do not consider that exhibit to be very probative. Third, there is no evidence on the record of observed serious injury caused by trawling. Although the evidence suggests that trawling may cause some unobserved mortality and serious injury, we consider that this risk is probably not very substantial, since tuna do not appear to routinely associate with dolphins. Finally, we note that none of the evidence suggests that trawling causes the kinds of unobservable harms caused by setting on dolphins.

7.7.2.6 Tuna handlining

7.7.2.6.1 Introduction

7.495. We now turn to the evidence concerning tuna handlining. The FAO defines this fishing method as follows:

> Tuna handline is a fishing gear composed of a single vertical line with one barbed hook at the distal point. If several barbed hooks are used, branchlines are connected along the mainline at regular intervals. Specification of the gear varies according to the ideas and traditions of fishermen in different areas of the world. Most fishermen use nylon (polyamide) for their handlines. Line must be strong enough to hold the fish and withstand the combined force of its weight, swimming power and determination to escape. Handlines can be set and hauled either manually or by mechanized reel. It is operated by simply dropping the baited hook into the level of the sea where tuna are found abundant. Handliners generally use natural baits such as squid, chopped pieces of scad mackerel, hairtail and tuna.[894]

[891] Alison McCarthy et al., Pilot Observer Programme in Irish Pelagic Trawl and Gillnet Fisheries: Implementing Council Regulation (EC) No 812/2004 (2011), (Exhibits USA-163), pp. 8-10 and John Boyd et al., Report on the Pilot Observer Programme in Irish Pelagic Trawl Fisheries: Implementing Council Regulation (EC) No 812/2004 (2012), (Exhibit USA-164), p. 34.

[892] Alison McCarthy et al., Pilot Observer Programme in Irish Pelagic Trawl and Gillnet Fisheries: Implementing Council Regulation (EC) No 812/2004 (2011), (Exhibits USA-163), pp. 8-10 and John Boyd et al., "Report on the Pilot Observer Programme in Irish Pelagic Trawl Fisheries: Implementing Council Regulation (EC) No 812/2004" (2012), (Exhibit USA-164), pp. 34-35.

[893] Alison McCarthy et al., Pilot Observer Programme in Irish Pelagic Trawl and Gillnet Fisheries: Implementing Council Regulation (EC) No 812/2004 (2011), (Exhibits USA-163), pp. 8-10 and John Boyd et al., Report on the Pilot Observer Programme in Irish Pelagic Trawl Fisheries: Implementing Council Regulation (EC) No 812/2004 (2012), (Exhibit USA-164), p. 34.

[894] FAO, Tuna handlining, (Exhibit MEX-38).

7.7.2.6.2 Panels' assessment in the present proceedings

7.496. We observe that neither the original nor the first compliance panel made factual findings about the risk profile of handline fishing. Accordingly, we review the relevant evidence for the first time.

7.497. According to Mexico, tuna associate with dolphins in some areas of the Indian Ocean, and handline fishers target[895] and "chase herds of dolphins to locate tuna".[896] In Mexico's view, if the Panels were to accept that setting on dolphins is harmful because chasing dolphins in and of itself causes dolphins to suffer unobservable harms, then handline fishing in association with dolphins must be "assumed" to have the same effects.[897]

7.498. The United States rejects Mexico's argument, and notes that Mexico does not assert that handline fishing has a higher risk profile for dolphins than dolphin sets, including under the AIDCP. The United States observes that Mexico does not suggest that handlining cannot be carried out in a manner that is not dangerous to dolphins or that it causes levels of dolphin mortality comparable to that caused by dolphin sets in the ETP. It also argues that none of the exhibits submitted by Mexico suggest that tuna handlining is associated with dolphin bycatch at all, and that several of the exhibits suggest that it is not.[898] Accordingly, the United States asserts that Mexico's argument that handline fishing in the Indian Ocean is capable of causing the type of unobservable effects caused by dolphin sets in the ETP, due to a tuna-dolphin association similar to that in the ETP that handline vessels exploit by chasing dolphins to catch tuna is "incorrect" and "unsupported".[899]

7.499. The Panels begin their assessment by noting that very little evidence concerning the extent of observable mortalities or serious injuries caused by handlining has been submitted by the parties. One report states that "[r]eports from Maldives and Sri Lanka have indicated that no dolphins are caught during [sic] this fishery", although it also notes "two instances of dolphins taking baited hooks", which dolphins were, however, released alive. The same report concludes that "[t]he scale of this issue [i.e. dolphins taking baited hooks], and of possible post-release mortality or sublethal effects are unknown, but deserve study".[900] On the basis of this limited evidence, it appears that dolphins are not known to suffer significant mortality or serious injury as a result of handline fishing. However, it appears that dolphins may occasionally hook themselves onto the baited hooks, and that the effects of handlining on dolphins may be worthy of further study. Nevertheless, the risk profile of handlining in terms of mortality and serious injury appears to be very low.

7.500. With respect to Mexico's argument that handlining should be "assumed"[901] to cause unobservable harms to dolphins because handliners target and chase dolphins, we first observe that the finding, made in previous stages of this dispute and reaffirmed above, that setting on dolphins is harmful to dolphins, was and is not based on an abstract *assumption* about the effect of chasing dolphins, as Mexico seems to suggest.[902] Rather, that finding is based on the evidence on the record showing that the particular nature of the chase and encirclement process inherent in the method of setting on dolphins has negative unobservable effects on dolphins. Put another way, the finding in respect of setting on dolphins is based not merely on the fact that setting on dolphins involves chasing dolphins, but rather on the fact that studies have shown that the specific chase and encirclement process involved in setting on dolphins actually causes harmful unobservable effects. Thus, even if Mexico were correct that handliners chase dolphins, that fact on its own would not, in our view, be a sufficient basis for concluding that handlining causes unobservable effects, in the absence of scientific or other studies showing that the chase engaged in by handliners actually does cause unobservable effects similar to those caused by setting on dolphins in the ETP large purse seine fishery.

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[895] Mexico's second written submission, para. 78.
[896] Mexico's first written submission, para. 110.
[897] Mexico's first written submission, para. 111; second written submission, para. 78.
[898] United States' second written submission, para. 110.
[899] United States' second written submission, para. 111.
[900] R.C. Anderson, Cetaceans and Tuna Fisheries in the Western and Central Indian Ocean, IPNLF Technical Report 2, International Pole and Line Foundation (2014), (Exhibit MEX-42), p. 70.
[901] Mexico's first written submission, para. 111.
[902] Mexico's second written submission, para. 78.

7.501. At any rate, in our view, the evidence does not establish that handliners do target and chase dolphins in a systematic way. Indeed, the definition of handlining cited above does not mention dolphins, indicating that there is no necessary or inherent relationship between the method of handlining and dolphins. It thus appears that, unlike setting on dolphins, handlining can be carried out without interacting with dolphins in any way.

7.502. For example, Exhibit MEX-39, which contains a report from 2009, entitled "Handline Large Yellowfin Tuna Fishery of the Maldives", observes that "[l]arge yellowfin schools are sighted by presence [of] dolphins and livebait is thrown to attract and maintain the school within reach of the boat. More than 90% of the schools are reported to be sighted by dolphins".[903] However, the report does not suggest that the fishing boats "chase" the dolphins. To the contrary, the report indicates that once the tuna schools have been sighted, the handlines are baited and then "the line is paid out while the vessel steams slowly forward".[904] As we read it, this means that although the presence of dolphins alerts handliners to the presence of tuna schools, dolphins are not involved in or affected by the fishing effort itself, which relies on baited lines to attract the tuna. Indeed, nothing in the report suggests that dolphins are themselves chased, encircled, or subject to any kind of interaction with the fishing vessels. The report itself makes no mention of dolphin mortality or serious injury, nor does it mention the existence or risk of bycatch of any kind.

7.503. Similarly, Exhibit MEX-40, which contains another report on the Maldives yellowfin tuna fishery from 2013, notes that "[f]ishers look for dolphins and large yellowfin tuna associated with the dolphin schools" in the Maldives[905], but does not suggest that those dolphins are chased, encircled, or subject to any kind of interaction. Rather, it seems that dolphins are looked for as a marker of the presence of tuna schools, but that the fishing effort itself involves using "larger size bait" to lure "surface-dwelling larger individuals".[906]

7.504. Exhibit MEX-41 contains an article by R.C. Anderson and A. Shann entitled "Association of Yellowfin Tuna and Dolphins in Maldivian Waters", published in IOTC Proceedings in 1998. The article notes that association is "widespread" in Maldivian fisheries. However, it contains a number of statements that clearly demonstrate the difference between the tuna-dolphin association in the ETP and that in Maldivian waters. Thus, the report observes that: "[m]ost Maldivian fishermen report that when schools of yellowfin and dolphins are associated, the dolphins follow the yellowfin, and not vice versa. Indeed, they refer to dolphin-associated yellowfin schools as *koamas kuri ainu*, i.e. schools in front of the dolphins", and notes that this is the opposite of the pattern observed in the ETP.[907] The article notes that tuna-dolphin association in other fisheries has been reported but is rarer[908], and concludes that "the association of dolphins and yellowfin tuna appears to be more widespread and frequent in the Indian Ocean than was previously realised, although it appears to be less common than in the eastern tropical Pacific".[909]

7.505. Most importantly, the article nowhere suggests that dolphins are chased, encircled, or subject to any other kind of interaction with fishing vessels. To the contrary, it observes that "[d]olphins are not caught by Maldivian tuna fishermen".[910] As with the exhibits reviewed in the

[903] Marine Research Center, Ministry of Fisheries and Agriculture, Republic of Maldives, Handline Large Yellowfin Tuna Fishery of the Maldives, IOTC-2009-WPTT-15 (October 2009), (Exhibit MEX-39), p. 5.

[904] Marine Research Center, Ministry of Fisheries and Agriculture, Republic of Maldives, Handline Large Yellowfin Tuna Fishery of the Maldives, IOTC-2009-WPTT-15 (October 2009), (Exhibit MEX-39), p. 5.

[905] Adam, Jauharee and Miller, Review of Yellowfin Tuna Fisheries in the Maldives, IOTC–2015–WPTT17–17 (8 October. 2015), (Exhibit MEX-40), p. 6.

[906] Adam, Jauharee and Miller, Review of Yellowfin Tuna Fisheries in the Maldives, IOTC–2015–WPTT17–17 (8 October. 2015), (Exhibit MEX-40), p. 2.

[907] Marine Research Center, Ministry of Fisheries and Agriculture, Republic of Maldives, Association of Yellowfin Tuna And Dolphins In Maldivian Waters, IOTC 1998-ECT-22 (1998), (Exhibit MEX-41), p. 157. See also R.C. Anderson, Cetaceans and Tuna Fisheries in the Western and Central Indian Ocean, IPNLF Technical Report 2, International Pole and Line Foundation (2014), (Exhibit USA-42), p. 70 (contrasting the behavior of tuna and dolphins in the Maldives with that in ETP). The video submitted by Mexico (and discussed in more detail below) also appears at one point to show dolphins swimming *behind* a small fishing vessel.

[908] Marine Research Center, Ministry of Fisheries and Agriculture, Republic of Maldives, Association of Yellowfin Tuna And Dolphins In Maldivian Waters, IOTC 1998-ECT-22 (1998), (Exhibit MEX-41), p. 158. The article reports that some association has been reported in the Savu Sea in Indonesia and in the Western Indian Ocean.

[909] Marine Research Center, Ministry of Fisheries and Agriculture, Republic of Maldives, Association of Yellowfin Tuna And Dolphins In Maldivian Waters, IOTC 1998-ECT-22 (1998), (Exhibit MEX-41), p. 158.

[910] Marine Research Center, Ministry of Fisheries and Agriculture, Republic of Maldives, Association of Yellowfin Tuna And Dolphins In Maldivian Waters, IOTC 1998-ECT-22 (1998), (Exhibit MEX-41), p. 157.

preceding paragraphs, the article in Exhibit MEX-41 suggests that "fishermen use the presence of dolphins to locate large yellowfin schools", but it does not state that the fishing effort affects dolphins in any way. It seems that dolphins are used to help locate the fish, which are then caught using hooks with live bait.[911]

7.506. The same is true of the report Cetaceans and Tuna Fisheries in the Western and Central Indian Ocean by Dr Charles Anderson, contained in Exhibit MEX-42. It notes that handliners in the Maldives, Yemen, Sri Lanka and Oman "typically locate the large yellowfin tuna by the presence of the dolphins (and often seabirds too). The schools are typically fast moving, and the fishermen move ahead of the dolphin school to deploy their lines".[912] Although this report notes two instances of dolphins taking baited hooks, thus indicating the possibility of interaction, it does not suggest that dolphins are chased or encircled. Moreover, the fact that there are only two reported instances of dolphin interaction seems to confirm that, although handliners may sight dolphins to help locate tuna schools, dolphins are not usually subject to any interaction with the fishing vessel during the fishing effort.

7.507. Finally, in support of its claim that handline fishing vessels chase dolphins, Mexico has submitted as evidence a video, posted on the Internet by one Feriansyah Putra, that according to Mexico shows handline vessels chasing dolphins.[913] The video is in a foreign language, and it is not clear exactly what the images are showing. They appear to show a small, traditional boat cruising at moderate speed. At one point, dolphins are seen in the middle distance swimming quickly and jumping out of the water. Subsequently, dolphins are seen in the near distance moving slowly. At another point, the video shows a traditional boat moving at moderate speed, with a dolphin swimming and jumping behind it. The video also shows the fishing effort itself, which appears to take place once the boat has stopped by baiting thin wire and pulling up tuna that bite. During the fishing effort, dolphins appear at rest in the middle-distance.

7.508. It is difficult for us to know precisely what the video is showing. We note that there is some text situated beneath the embedded video, but this does not appear to be a translation of the spoken narration. Of note, however, is the statement in the text that "[t]he position of best fishing is in front of [a] group of dolphins", again suggesting that dolphins are neither targeted nor chased.

7.509. Nevertheless, the content of the video appears to be consistent with what the other exhibits on the record show, namely that in some fisheries, and particularly in the Maldives, the presence of dolphins indicates the presence of tuna schools. Thus, there may be dolphins nearby when handline fishing takes place. However, as with the other evidence on the record, the video does not show dolphins being chased or otherwise interacted with. The dolphins in the video do not appear to come close to the fishing vessels, and neither do the vessels themselves seem to be moving in the direction of the dolphins. Rather, the video seems to show dolphins swimming some way away on the side of the vessel.

7.510. Moreover, even if the vessels in the video were chasing dolphins, the video shows that handlining takes place using very small, traditionally-shaped boats. There are no speed boats or helicopters. It is accordingly clear that the method of handlining is very different from the method of setting on dolphins.

7.511. Accordingly, we do not find support in the evidence for the suggestion that handliners chase dolphins, and certainly not in a way that is similar to the chase and encirclement in the ETP. To the contrary, we find that dolphins do not appear to be an essential component of handlining, and that although handliners may sight dolphins to locate tuna populations, the dolphins themselves are not chased, encircled, or otherwise interfered with. None of the evidence supports the claim that handlining causes unobservable harms to dolphins. In conclusion, we find that there is no evidence of handlining causing observable mortalities to dolphins. There is some indication in the evidence that dolphins may occasionally become hooked on baited handlines, although this seems to be very uncommon. We have also found no support in the evidence for the proposition

[911] Marine Research Center, Ministry of Fisheries and Agriculture, Republic of Maldives, Association of Yellowfin Tuna And Dolphins In Maldivian Waters, IOTC 1998-ECT-22 (1998), (Exhibit MEX-41), p. 157.

[912] R.C. Anderson, Cetaceans and Tuna Fisheries in the Western and Central Indian Ocean, IPNLF Technical Report 2, International Pole and Line Foundation (2014), (Exhibit USA-42), p. 70.

[913] Mexico's second written submission, para. 76.

that handlining causes unobservable harms similar to those caused by setting on dolphins. Therefore, in our view, the risk profile of handlining fishing is low.

7.7.2.7 Pole and line fishing

7.7.2.7.1 Introduction

7.512. We now consider the risk profile of pole and line fishing. The FAO defines pole and line fishing as follows:

> Fish are attracted by the bait. In small-scale professional or sport fisheries the pole is swung so to reach the line, a moulinet has to be used when the line is much longer than the pole; the small fish is, then, taken from the hook by hand. On board tuna pole and lines vessels, the hooked fish tuna are swung on board, by hands (by two to three fishermen if the tuna is very big) or with an automatic swinging system; the tuna normally release themselves from the barbless hook when they touch the deck of the vessel.[914]

7.513. We observe that, in the first compliance proceedings, both parties accepted that pole-and-line fishing causes no risks to dolphins.[915] Moreover, in these proceedings, the safety of pole-and-line fishing has not been contested by either party. According to the United States, pole and line fishing is not associated with harm to dolphins, either observable or unobservable, and poses a much lower level or risk to dolphins than dolphin sets.[916] Mexico also accepts that pole and line fishing is "relatively safe for dolphins".[917]

7.7.2.7.2 Panels' assessment in the present proceedings

7.514. There is little evidence on the record concerning pole and line fishing, and it confirms that pole and line fishing has a very low risk profile. Thus, a report by Eric L. Gilman and Carl Gustaf Lundin entitled "Minimizing Bycatch of Sensitive Species Groups in Marine Capture Fisheries: Lessons from Tuna Fisheries" finds that "[t]here are extremely low bycatch levels in pole-and-line fisheries", and what bycatch there is, is composed of non-target fish rather than dolphins. Similarly, Exhibit MEX-42, which we discussed above in the context of handline fishing, states that "[p]ole-and-line fishing is not known to have any direct impact on cetaceans. Tuna are caught individually, one by one, and fishermen can clearly see what they are catching".[918] The same report notes that while dolphins sometimes approach pole-and-line vessels at night, this is in order to feed, and has no negative impact on the dolphins themselves.[919]

7.515. It is clear from the evidence that pole and line vessels do not intentionally interact with dolphins, and that pole and line fishing can be carried out without any dolphins in the vicinity. Pole and line fishing appears hardly to interact with dolphins, except when the dolphins themselves approach vessels at night searching for food. There is no report of any dolphins being killed or seriously injured as a result of pole and line fishing. There is naturally also no evidence about any unobservable harm that this method causes to dolphins.

7.516. Accordingly, on the basis of the evidence before us, we find that pole and line fishing poses no risk of observable or unobservable harms to dolphins. The risk profile of the fishery is accordingly very low.

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[914] FAO, Pole and Line, (Exhibit MEX-111).

[915] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.185, fn. 366 (noting that "[b]oth parties accept that dolphins are at some risk from *all tuna fishing methods* and in *all fisheries*" "[e]xcept for pole-and-line fishing" (emphasis in original).

[916] United States' second written submission, para. 104.

[917] Mexico's response to Panels' question No. 89, para. 155. We note that in other parts of its submission, Mexico seems to accept that pole and line fishing is safe for dolphins, without qualification. See e.g. Mexico's response to Panels' questions Nos. 111, para. 222 and 116, para. 234.

[918] R.C. Anderson, Cetaceans and Tuna Fisheries in the Western and Central Indian Ocean, IPNLF Technical Report 2, International Pole and Line Foundation (2014), (Exhibit MEX-42), p. 71.

[919] R.C. Anderson, Cetaceans and Tuna Fisheries in the Western and Central Indian Ocean, IPNLF Technical Report 2, International Pole and Line Foundation (2014), (Exhibit MEX-42), p. 71.

7.7.2.8 Overall relative assessment of the method-specific findings

7.517. Above, we have made findings about the risk profiles of individual fishing methods as used in different areas of the ocean. Specifically, we have considered the evidence on the record in respect of setting on dolphins, purse seine fishing without setting on dolphins, gillnet fishing, trawl, longline fishing, pole and line, and handline fishing. In assessing the risk profiles, we have taken into account both observable and unobservable harms caused by each of these fishing methods in different parts of the ocean. In this last section of our factual findings, we provide a comparative assessment of method-specific findings. We recall that the issue before us is whether the 2016 Tuna Measure, under which tuna products obtained from tuna caught by setting on dolphins are ineligible for the dolphin-safe label whereas tuna products obtained from tuna caught by the other six methods cited above are conditionally eligible for that label, is calibrated to different levels of risks posed to dolphins by different fishing methods in different areas of the ocean. Therefore, in providing a comparative assessment of the risk profiles of the seven methods analysed in these Reports, we will compare the method of setting on dolphins to each of the other six methods.

7.518. In the preceding sections of these Reports, we have found that setting on dolphins causes both observable and unobservable harms to dolphins. The unobservable harms are caused by the chase and encirclement process itself, and include cow-calf separation; potential muscle injury resulting from the chase; immune and reproductive systems failures; and other adverse health consequences for dolphins, such as continuous acute stress. We have also found that none of the other fishing methods causes to dolphins the kind of unobservable harms that setting on dolphins causes. Thus, as far as unobservable harms are concerned, setting on dolphins stands out in that it is the only method that causes such harms.

7.519. With regard to observable harms, we have found that setting on dolphins in the ETP has caused on average 91.15 dolphin mortalities between 2009 and 2015. This method also causes serious injuries to dolphins, albeit to a lesser extent compared to mortalities. The record evidence shows that setting on dolphins in the ETP has caused serious injuries to 72 dolphins in 2009, 57 in 2010, 36 in 2011, 13 in 2012, and 27 in 2013. The evidence before us also suggests that it is likely that the number of dolphins killed or seriously injured by setting on dolphins in the ETP is higher than the mentioned figures.

7.520. We have found that gillnet fishing poses high levels of observable harms to dolphins in certain areas of the ocean, but does not pose the same harms in other areas. Specifically, we have found that driftnets killed tens of thousands of dolphins on the high seas during the 1980s and 1990s that led to the 1992 UN moratorium on this particular method in the high seas. We have also found, however, that per set figures on dolphin mortalities caused in other gillnet fisheries have been 19 in the Northern Australia Gillnet Fishery (2000-2003); 35.4 (2014) and 24.4 (2015) in the California Drift Gillnet Fishery; and 4.6 (2010) and 0 (2011) in the California Set Gillnet Fishery. We therefore note that, while significant, the observable harms caused by gillnet fishing remained clearly below those caused by setting on dolphins in the ETP.

7.521. With regard to trawl fishing, we have found that, as far as observable harms to dolphins are concerned, this is a low-to-moderate risk fishing method because it entails very little, if any, interaction with dolphins, and therefore causes a low level of dolphin bycatch. Specifically, the evidence on the record shows, for instance, that in North-Western Australia, on average 12.6 dolphins per 1000 sets were killed by trawlers. We have also found that the risk of unobserved mortality or serious injury is likely to be very low. Thus, it is clear that trawling poses a much smaller level of risk of observable harms to dolphins, compared to setting on dolphins in the ETP.

7.522. Regarding purse seine fishing without setting on dolphins, we have found that dolphin mortalities caused by purse seine fishing without setting on dolphins in the ETP was on average below 0.2 per 1,000 sets in the 2009-2014 period, excluding a peak in 2011 where 10 mortalities were reported in 12,103 sets (corresponding to 0.83 mortality per 1,000 sets). We have also found that the number of serious injuries caused by purse seine fishing without setting on dolphins in the ETP has been zero in the 2009-2014 period. In the WCPO, the per set mortalities of dolphins as a consequence of purse seine fishing without setting on dolphins was 2.64, 1.2 and 2.2 per 1,000 sets in 2010, 2014 and 2015, respectively. In the period 2007-2009, the average level was 27.12 mortalities per 1,000 sets. In the Indian Ocean, one study shows an average of 0.33 dolphin mortality per 1,000 sets as well as a total of 37 dolphins released alive in the 1995-2011 period, whereas another study shows no dolphin mortality in the 2003-2009 period. In the Eastern

Tropical Atlantic Ocean, the average level of mortalities has been close to zero, and that of serious injuries has been similarly very low. Additionally, we have found that the risk of unobserved mortality or serious injury is likely to be low. Thus, it is clear that the level of observed harms caused by purse seine fishing without setting on dolphins is very low compared to setting on dolphins in the ETP.

7.523. Regarding longline fishing, we have found that the rate of dolphin mortalities caused by this method has been consistently low, with many years in different fisheries registering no known mortality or captures of dolphins. The highest available rate of possible dolphin mortalities associated with longline fisheries has been 15.31 dolphins per 1000 sets in the Australia Eastern Tuna and Billfish Longline in 2010. Moreover, we have found that the risk of unobserved mortality or serious injury is likely to be low. Therefore, this method causes much less observable harm to dolphins, compared to setting on dolphins in the ETP.

7.524. Regarding handlining and pole and line fishing, we have found that the limited amount of evidence on the record shows that these two methods generally do not interact with dolphins, and therefore do not cause significant, if any, observable harms to dolphins. They therefore cause much less observable harm to dolphins, compared to setting on dolphins in the ETP.

7.525. In sum, given that none of the six methods we have assessed causes the kinds of unobservable harms to dolphins that setting on dolphins causes, and considering the important differences between setting on dolphins and each of the other six methods with respect to observable harms to dolphins, we conclude that, overall, the risk profile of setting on dolphins is much higher than that of each of the other six fishing methods used to catch tuna.

7.8 Whether the 2016 Tuna Measure is consistent with Article 2.1 of the TBT Agreement

7.8.1 Introduction

7.526. In the preceding sections of these Reports, we (a) described the 2016 Tuna Measure; (b) set out our understanding of the applicable legal standard; (c) found that (i) the 2016 Tuna Measure is a technical regulation within the meaning of Annex 1.1 to the TBT Agreement, (ii) Mexican tuna products and tuna products from the United States and other countries are "like", and (iii) the 2016 Tuna Measure has a detrimental impact on Mexican tuna products *vis-à-vis* tuna products from the United States and other countries; and (d) conducted an assessment of the relative risks posed to dolphins by the use of different fishing methods in different areas of the ocean.[920] In this section, we assess whether the 2016 Tuna Measure brings the United States into compliance with the WTO Agreement. In particular, we assess whether the 2016 Tuna Measure is "calibrated" to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean, such that the detrimental impact caused by the 2016 Tuna Measure can be said to stem exclusively from a legitimate regulatory distinction and therefore not to accord treatment less favourable within the meaning of Article 2.1 of the TBT Agreement.

7.527. We recall that in the first compliance proceedings, the Appellate Body criticized the compliance panel for conducting a "segmented" analysis of the different elements of the measure by making "discrete findings" on each element without reaching "a finding of consistency or inconsistency of the … measure more broadly, or as a whole".[921] The Appellate Body emphasized that analysing a measure in a segmented manner may raise concerns when the constituent parts of the measure are interrelated and operate in an integrated way[922], because in that context a segmented approach may result in panel failing "to make an overall assessment that synthesizes its reasoning or intermediate conclusions concerning related elements of a measure at issue so as to reach a proper finding of consistency or inconsistency in respect of that measure".[923] In the specific context of the 2013 Tuna Measure, the Appellate Body explained that "there are various 'connections' between the different elements of" the Tuna Measure[924], and emphasized that the substantive conditions for gaining access to the dolphin-safe label cannot be properly understood

[920] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.155.
[921] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.12.
[922] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.13.
[923] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.15.
[924] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.14.

without reference to the certification and tracking and verification requirements that define, and demonstrate compliance with, those very conditions.[925] The Appellate Body also stated that:

> [T]he detrimental impact resulting from the amended tuna measure cannot properly be examined through isolated analyses of the detrimental impact associated with discrete sets of requirements under that measure. Since all of the conditions for access to the dolphin-safe label may bear on such detrimental impact[926], a proper assessment of the detrimental impact of the amended tuna measure on Mexican tuna products calls for an examination of the manner in which the different labelling conditions under the measure operate together in a way that affects the conditions of competition for Mexican tuna products in the US market.[927]

7.528. In the light of these considerations, the Appellate Body found that the compliance panel had committed legal error[928] by conducting:

> [A] segmented analysis that isolated consideration of each element of the measure without accounting for the manner in which the elements are interrelated, and without aggregating or synthesizing its analyses or findings relating to those elements before reaching its ultimate conclusions as to the consistency or inconsistency of the amended tuna measure.[929]

7.529. However, the Appellate Body also recognized that it is not necessarily inappropriate for a panel, in analysing the conformity of a measure with obligations under the WTO covered agreements, to proceed by assessing different elements of the measure in a sequential manner. Indeed, according to the Appellate Body, such an approach may, depending on the nature of the measure at issue, be useful, or in some instances critical, to understanding how that measure is designed and applied.[930] In our view, the question whether the detrimental impact caused by the 2016 Tuna Measure stems exclusively from a legitimate regulatory distinction can be answered by looking first at whether each of the elements of the measure is calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean, and then synthesizing our intermediate analyses to reach an overall, holistic conclusion about the WTO-consistency of the Measure. We note that this is also how the parties themselves have presented their arguments.[931]

7.530. Accordingly, in the remainder of this section, we will examine whether (a) the eligibility criteria, (b) the certification requirements, (c) the tracking and verification requirements, and (d) the determination provisions are calibrated to the difference in the overall risks to dolphins arising from the use of different fishing methods in different areas of the ocean. In considering whether each of these elements is calibrated, we will not undertake an "isolated consideration of each element".[932] Rather, where appropriate, we will pay close attention to the ways in which each of these elements "interrelate with each other".[933] In particular, as we explain in detail below, we consider that the determination provisions work together with and reinforce the certification and tracking and verification requirements, and our consideration of the certification and tracking and verification requirements necessarily includes consideration of the determination provisions. After concluding these intermediate analyses, we will proceed to consider how they relate to one another.[934] Finally, we will synthesize our analysis in order to reach an ultimate conclusion as to the consistency of the 2016 Tuna Measure with the WTO Agreement.[935]

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[925] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.17.

[926] As the panel itself recognized, the US dolphin-safe labelling regime necessarily includes not only the "substantive … requirement[s]", but also the various certification and tracking and verification requirements constituting the mechanisms by which compliance with those substantive requirements is "monitored and demonstrated". (Panel Report, fn. 125 to para. 7.37)

[927] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.63.

[928] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.76.

[929] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.21.

[930] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.14.

[931] See e.g. United States' first written submission, paras. 71-186; Mexico's first written submission, paras. 226-301.

[932] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.21.

[933] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.19.

[934] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.20.

[935] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.21.

7.531. Before proceeding to our calibration analysis, however, we find it important to underline that the question of *how* the risk profiles of different fishing methods should be assessed and compared is explained in earlier parts in these Reports. Accordingly, in this section, we do not repeat the parties' arguments or our analysis concerning issues such as whether it is appropriate to use a per set, a PBR, or an overall adverse effects methodology. Additionally, in this section, we do not repeat in detail our findings concerning the overall relative risk profiles of different fishing methods. Rather, we assess whether the 2016 Tuna Measure is calibrated based on the parties' arguments and the findings we have made above concerning the relative risks to dolphins arising from the use of different fishing methods in different areas of the ocean. In particular, we will assess whether the 2016 Tuna Measure is "appropriately tailored to", "commensurate with", or "explained by" the differences in the risk profiles we have already analysed.

7.8.2 Eligibility criteria

7.532. As we have explained above, the eligibility criteria are the criteria pursuant to which tuna products made from tuna caught by (a) setting on dolphins and (b) driftnets in the high seas[936] are disqualified from accessing a dolphin-safe label, while tuna products made from tuna caught by other fishing methods are provisionally eligible. In the first compliance proceedings, the Appellate Body referred to the eligibility criteria as the "substantive conditions for access to [a] dolphin-safe label".[937]

7.533. According to the United States, the eligibility criteria are even-handed because they address the risks of both setting on dolphins and other fishing methods, commensurately with the risks the different methods pose to dolphins.[938] In the United States' view, setting on dolphins is unique because it is the only fishing method in which vessels intentionally target marine mammals in order to catch commercially valuable fish. The United States recalls that every dolphin set involves the chasing and encircling of numerous dolphins, sometimes for hours at a time, and emphasises that therefore every dolphin set necessarily poses a risk of both observable and unobservable harms. Thus, in the United States' view, setting on dolphins cannot be carried out in a way that does not endanger dolphins, and accordingly is inherently unsafe.[939] Moreover, the United States argues that setting on dolphins remains uniquely dangerous in terms of the numbers of dolphins killed and seriously injured as a result of the fishing method[940], when assessed on a per set basis.[941]

7.534. The United States contrasts the fishing method of setting on dolphins with other fishing methods, which, according to the United States, are not inherently unsafe to dolphins.[942] The United States explains that fishing methods other than setting on dolphins do not target dolphins, and in fact often actively strive to avoid them. For these fishing methods, dolphins are not an essential part of the fishing method, and they can therefore be carried out in ways that do not endanger dolphins.[943] Indeed, according to the United States, dolphin mortalities caused by fishing methods other than setting on dolphins are a small fraction of those caused by setting on dolphins.[944]

7.535. The United States also notes that setting on dolphins causes unobservable harms as a result of the chase itself, whereas no evidence on the record suggests that other fishing methods cause similar kinds of harms.[945]

7.536. In the light of these differences between setting on dolphins, on the one hand, and other fishing methods on the other hand, the United States argues that the eligibility criteria are calibrated because they distinguish between the only fishing method that intentionally targets dolphins and those fishing methods that do not.[946] Thus, according to the United States, the

[936] We note that the parties have not submitted arguments concerning the disqualification of tuna caught by driftnet on the high seas.
[937] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.19.
[938] United States' first written submission, para. 91.
[939] United States' first written submission, para. 96.
[940] United States' first written submission, para. 102.
[941] United States' second written submission, para. 136.
[942] United States' first written submission, para. 105.
[943] United States' first written submission, para. 97.
[944] United States' first written submission, para. 105.
[945] United States' first written submission, para. 100.
[946] United States' first written submission, para. 104.

eligibility criteria distinguish between a fishing method that is inherently unsafe for dolphins (setting on dolphins) and other fishing methods that may be, and in fact usually are, safe for dolphins.[947]

7.537. Mexico disagrees with the United States on this issue. According to Mexico, the difference in treatment between ineligible and eligible fishing methods is not even-handed.[948] In Mexico's view, the question of whether the eligibility criteria are calibrated must be answered through an assessment of whether there are observed and/or unobserved dolphin mortalities and serious injury associated with a fishing method and fishing area and the magnitude of those adverse effects.[949] However, according to Mexico, when a consistent method of comparison, such as PBR, is applied across fishing methods and ocean areas, it is clear that the eligibility criteria are not calibrated to the overall levels of risk, taking account of the objectives of the 2016 Tuna Measure[950], because AIDCP-compliant setting on dolphins has a lower risk profile than other tuna fishing methods.[951]

7.538. Moreover, Mexico argues that the Panels must not focus their assessment of whether the eligibility criteria are calibrated on the unique activities comprising each fishing method.[952] According to Mexico, what is relevant to the calibration analysis is the adverse effects that a particular fishing method has on dolphins, not the activities making up that fishing method.[953] Thus, Mexico cautions the Panels from basing their conclusions "simply on the nature of the activities" making up a particular fishing method. Rather, in Mexico's view, "the assessment must be undertaken based on the absolute levels of adverse effects or on an objective measure like PBR".[954] We understand this argument to mean that in our assessment of the risk profile of setting on dolphins, we should focus on the harms caused to dolphins by this fishing method, and not on the fact that it always requires interaction with dolphins.

7.539. We recall our earlier finding that setting on dolphins is significantly more dangerous to dolphins than are other fishing methods. In reaching this conclusion, we considered the evidence on the record concerning the existence and extent of observable harms, unobservable harms, and interaction with dolphins. We explained that dolphin sets necessarily interact with dolphins, and that therefore dolphins are an essential element of the method of setting on dolphins. We also explained that, because every dolphin set chases and encircles dolphins, every dolphin is at risk of both observable harms and unobservable harms, which, because of their nature, cannot be certified. This contrasts with other fishing methods, which do not routinely and systematically interact with dolphins, which cause observable harms at a much smaller magnitude compared to setting on dolphins, and which do not cause the same kinds of unobservable harms as are caused by setting on dolphins.

7.540. Taking into account the relative risk profiles of setting on dolphins, on the one hand, and other fishing methods on the other hand, we consider that the eligibility criteria are appropriately calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean. A number of considerations lead us to this conclusion.

7.541. First, based on the data on the record, we have concluded that setting on dolphins poses a much higher risk of observed dolphin mortality and serious injury, on a per set basis, than other fishing methods. We have found that, on a per set basis, setting of dolphins is more likely to kill or seriously injure a dolphin than any other fishing method. For instance, in the period 2009-2015, there were 91.15 dolphin mortalities per 1,000 sets in the ETP large purse seine fishery by setting on dolphins, compared to 0.20 dolphin mortalities per 1,000 sets in the ETP large purse seine fishery without setting on dolphins in the period 2009-2014, and an annual average of 2.01 dolphin mortalities per 1,000 sets in the WCPO purse seine fishery without setting on dolphins in the years 2010, 2014 and 2015. In fact, even the highest observed mortalities per set in other fisheries are almost three times smaller than those occurring in the ETP large purse seine fishery by setting on dolphins. This is the case of the WCPO purse seine fishery without setting on

[947] United States' first written submission, para. 105.
[948] Mexico's second written submission, para. 53.
[949] Mexico's second written submission, para. 62.
[950] Mexico's first written submission, para. 239.
[951] Mexico's first written submission, para. 253.
[952] Mexico's second written submission, para. 62.
[953] Mexico's first written submission, para. 258.
[954] Mexico's first written submission, para. 259.

dolphins in the period 2007-2009, which registered a mortality of 27.12 dolphins per 1,000 sets. We also recall that gillnet fishing caused, per 1,000 sets, 19 mortalities in the Northern Australia Gillnet Fishery (2000-2003); 35.4 (2014) and 24.4 (2015) mortalities in the California Drift Gillnet Fishery; and 4.6 (2010) and 0 mortality (2011) in the California Set Gillnet Fishery, which are also considerably lower compared to the ETP large purse seine fishing by setting on dolphins.

7.542. Moreover, in terms of the magnitude of observed harms, the difference between setting on dolphins, on the one hand, and other fishing methods on the other hand is, in our view, significant. The greater risks caused by setting on dolphins appear to us to justify the finding of the original and first compliance panels that setting on dolphins is "particularly harmful" to dolphins.[955]

7.543. Second, we have also concluded that the method of setting on dolphins is more likely than other fishing methods to cause unobserved mortality and serious injury. This is because, as we have explained above, setting on dolphins routinely and systematically interacts with dolphins, meaning that there is a higher likelihood than in respect of other fishing methods that dolphins will be killed or seriously injured, even if such mortality or injury is not in fact observed. As we noted above, fishing methods other than setting on dolphins can be, and often are, carried out without any dolphin interactions, and thus do not pose any risks to dolphins. Moreover, although some fishing methods do interact with dolphins, the extent of the interaction, on a per set basis, is significantly smaller than it is in respect of setting on dolphins.

7.544. Finally, we have accepted, based on our assessment of the evidence on the record that setting on dolphins causes a unique kind of unobservable harm that by its nature cannot be certified. Therefore, setting on dolphins poses a risk of harms whose realization cannot be definitively established. This means that, even where no dolphins have been killed or seriously injured, there remains a risk that dolphins subject to chase and encirclement may have suffered from unobservable harms, such as continuous acute stress.[956] As such, a certification, even by an independent observer, that no dolphins were killed or seriously injured in a set on dolphins could not indicate, with any degree of certainty, that the tuna caught in that set was dolphin-safe, since dolphins may well have suffered unobservable harms as a result of the chase itself. In this sense, we agree with the United States that allowing tuna caught by setting on dolphins, in a set in which no dolphins were killed or seriously injured, to access a dolphin-safe label may mislead US consumers[957], since it could not control for the unobservable harms that may have been caused as a result of the chase and encirclement process.

7.545. To be clear, we are not suggesting that every dolphin chased and encircled in a dolphin set actually does suffer unobservable harms. As we explained above, the evidence would not support such a finding. However, the evidence does indicate that every dolphin chased and encircled is *at risk* of suffering unobservable harms, and because these harms cannot be certified, there is no way in which tuna caught in a set in which dolphins suffered unobservable harms could be distinguished from tuna caught in a set in which dolphins did not suffer unobservable harms.

7.546. This contrasts with other fishing methods, which, as we have concluded on the basis of the evidence before us, do not cause the same kinds of unobservable harms as setting on dolphins. Accordingly, these other fishing methods do not cause the same sort of harms whose occurrence cannot, by definition, be certified. In this sense, in respect of tuna caught other than by setting on dolphins, it is generally possible to distinguish between tuna caught in a set in which dolphins were harmed, and tuna caught in a set in which dolphins were not harmed.

7.547. Taking all of these factors into account, we consider that the eligibility criteria embodied in the 2016 Tuna Measure are calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean.

7.8.3 The certification requirements

7.548. We now turn to consider whether the certification requirements are calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean.

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[955] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.120.
[956] See also Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.122.
[957] United States' first written submission, para. 5.

7.549. As we have explained above, the certification requirements provide that certain documentation must accompany tuna intended to be labelled as dolphin-safe in the US market. The required certifications differ depending on whether the tuna product is produced from the ETP large purse seine fishery or from another fishery. Thus, tuna caught in the ETP large purse seine fishery must be accompanied by a certification from the vessel captain and an independent observer that (a) no dolphins were killed or seriously injured during the sets in which the tuna was caught, and (b) none of the tuna was caught on a trip using a purse seine net intentionally deployed on, or used to encircle, dolphins. For tuna caught outside the ETP large purse seine fishery, a certification from the vessel captain that "[n]o purse seine net or other fishing gear was intentionally deployed on or used to encircle dolphins during the fishing trip in which the tuna were caught, and that no dolphins were killed or seriously injured in the sets or other gear deployments in which the tuna were caught" is required. An independent observer certification may also be required for tuna caught outside the ETP large purse seine fishery if the tuna was caught in a fishery that has been designated, under the "determination provisions", as having either a regular and significant association between dolphins and tuna (similar to the association between dolphins and tuna in the ETP) or a regular and significant mortality or serious injury of dolphins is occurring.

7.550. In the first compliance proceedings, the panel engaged in a detailed analysis of the certification requirements. On appeal, the Appellate Body reversed the first compliance panel's conclusions on the basis that the panel had made an improperly segmented analysis and had failed to properly consider whether the certification requirements were calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean.[958] However, the Appellate Body did not find that the substance of the compliance panel's analysis was itself incorrect. Rather, it noted that "while the concept of different risks to dolphins in relevant fisheries seems to have played some part in" the compliance panel's analysis, that analysis nevertheless failed to "encompass[] a clear identification of the respective risks or an assessment of whether such risks were addressed in an even-handed manner by the different certification requirements".[959] Moreover, the Appellate Body rejected a claim by Mexico that the first compliance panel had violated Article 11 of the DSU in making certain factual findings related to the certification requirements.[960] Accordingly, we consider that some of the factual and legal findings of the first compliance panel and the Appellate Body in respect of the certification requirements are relevant to our analysis in these proceedings. We will set out what we see as the most relevant findings from the first compliance proceedings, before proceeding to summarize the arguments of the parties in these proceedings and conduct our own assessment of whether the certification requirements are calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean.

7.551. We begin by observing that, in considering the certification requirements, the first compliance panel accepted the United States' argument that the 100% observer requirement in the ETP is intrinsically tied to the "special risk profile"[961] in the ETP large purse seine fishery.[962] In this respect, the first compliance panel accepted that although dolphins may occasionally and incidentally be set on outside the ETP, it is only inside the ETP that setting on dolphins is practiced consistently or systematically.[963] On appeal, the Appellate Body rejected Mexico's claim that this finding was made in violation of Article 11 of the DSU.[964] The Appellate Body explained that the evidence presented by Mexico did "not suggest widespread tuna-dolphin association or widespread use of the fishing technique of setting on dolphins outside the ETP".[965]

7.552. Having accepted that the different certification requirements were tied to the special risk profile of the ETP large purse seine fishery, the first compliance panel went on to accept that the United States had raised a *prima facie* presumption that the different certification requirements stemmed exclusively from a legitimate regulatory distinction.[966] Specifically, the panel accepted the United States' argument that:

[958] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.159 and 7.165.
[959] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.165.
[960] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.215 – 7.226.
[961] Panel Report, *US – Tuna II (Mexico) Article 21.5 – Mexico)*, para. 7.398.
[962] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.238.
[963] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.242.
[964] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.220 and 7.227.
[965] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.226.
[966] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.242 and 7.245.

> A large ETP purse seine vessel carries a crew of approximately 20 persons on any particular trip. The primary job of the crew is to harvest tuna. However, given the intensity and length of the interactions in a dolphin set between the dolphins, on the one hand, and the vessel, speed boats, helicopter, and purse seine net on the other, the AIDCP parties concluded that it was appropriate to require a vessel capable and permitted to engage in such a dangerous activity to carry a single person to observe the impact of the vessel on the dolphins that it was chasing and capturing.[967]

7.553. Thus, the first compliance panel appeared to accept that:

> [O]bservers are necessary on ETP large purse seiners but may not be necessary on other vessels in other fisheries *not* because the risk of dolphin mortality or serious injury is somehow less important in other fisheries, but rather because the nature of the fishing technique used by ETP large purse seiners, which essentially involves the chasing and encirclement of many dolphins over an extended period of time, means that it is necessary to have one single person on board with the responsibility of keeping track of those dolphins caught up in the chase and/or the purse seine nets set. Other fishing methods in other oceans may – and, as the United States recognizes, do – cause dolphin mortality and serious injury, but because the nature and degree of the interaction is different in quantitative and qualitative terms (since dolphins are not set on intentionally, and interaction is only accidental), there is no need to have a single person on board whose sole task is to monitor the safety of dolphins during the set or other gear deployment.[968]

7.554. Moreover, the first compliance panel rejected an argument by Mexico that "captains' certifications are unreliable because captains have a financial incentive not to report accurately on the dolphin-safe status of tuna caught in a given set or other gear deployment".[969] The panel explained that the fact that domestic, regional, and international regimes have continued to rely on captains' certifications and logbooks even though instances of non-compliance have been reported suggests that such instances of non-compliance should not be considered as seriously undermining the general reliability of captains' certifications.[970] On appeal, the Appellate Body rejected Mexico's claim that the compliance panel had violated Article 11 of the DSU in arriving at this conclusion.[971]

7.555. However, the compliance panel did accept Mexico's argument that "captains may not necessarily and always have the technical skills required to certify that no dolphins were killed or seriously injured in a set or other gear deployment, and this may result in inaccurate information being passed to consumers, in contradiction with the objectives of the amended tuna measure".[972] According to the first compliance panel, certifying whether a set or other gear deployment is dolphin-safe can be a "highly complex" activity "for which training and education are required".[973] The compliance panel found, however, that the United States had "not explained sufficiently why it assume[d] that captains are capable of carrying out [that] activity".[974]

7.556. We note, however, that although the first compliance panel concluded that the certification requirements did not stem exclusively from a legitimate regulatory distinction, it also stated that:

> [W]e are not finding that the *only* way for the United States to make its measure even-handed is to require observer coverage. To the contrary, as we found above, captains' certifications are relied upon by domestic, regional, and international regimes for a wide variety of purposes, and we see no reason why captains could not,

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[967] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.239.

[968] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.240 (internal citations omitted). In fact, the first compliance panel was in this paragraph setting out its understanding of the United States' argument. However, the panel then went on to find the United States' argument "compelling", and to accept that it "would be sufficient to raise a presumption" that the different certification requirements stemmed exclusively from a legitimate regulatory distinction. Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.242.

[969] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.211.

[970] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.209.

[971] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.215 – 7.219.

[972] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.233.

[973] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.246.

[974] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.246.

> in principle and as a general matter, accurately certify the dolphin-safe status of a tuna catch. As we see it, the key problem with the amended tuna measure as currently designed is that the United States has not explained why its measure assumes that captains have at their disposal the skills necessary to ensure accurate certification.[975]

7.557. Having set out what we consider to be the most important findings from the first compliance proceedings, we now proceed to summarize the parties' submissions in these proceedings.

7.558. The United States argues that the differences in the certification requirements are commensurate with the different risk profiles of the ETP large purse seine fishery, on the one hand, and other fisheries on the other hand.[976] The United States explains that the ETP has a "special risk profile" because it is the only ocean that exhibits an association between tuna and dolphins so frequent that it is exploited systematically by a commercial fishery.[977] Indeed, the United States argues that the ETP is the only ocean where large purse seiners are both capable of and permitted to set on dolphins.[978] The United States contrasts the situation in the ETP large purse seine fishery with the situation in other fisheries where, according to the United States, there is no evidence that vessels set on dolphins or are even capable of doing so. The United States also submits that in fisheries other than the ETP large purse seine fishery, less than 1% of sets involve any interaction with dolphins.[979] On the basis of these differences, the United States argues that the frequency and intensity of interactions between dolphins and fishing vessels in the ETP large purse seine fishery is "unparalleled".[980]

7.559. Having argued that the ETP large purse seine fishery has a special risk profile, the United States proceeds to argue that the difference in the certification requirements is commensurate with, or calibrated to, the difference between the risk profile of the ETP large purse seine fishery on the one hand, the risk profiles of other fisheries on the other hand.[981] The United States submits that this is so for two reasons.

7.560. First, the United States argues that the difference in the certification requirements is commensurate with the differences in risk because the task of verifying that tuna meets the eligibility criteria is so much more difficult in the ETP large purse seine fishery than it is in other fisheries, due to both the large numbers of dolphin that interact with purse seine vessels setting on dolphins[982] and to the nature of the interaction between dolphins and purse seine vessels setting on dolphins, which includes chasing and encirclement.[983] The United States explains that, in its view, it is appropriate to require two certifiers[984] (one of whom has to meet certain minimum education standards and has undergone some training) where the conditions facing the certifier are very difficult, and to require only one certifier (who need not meet minimum education standards but is required to have taken a training course) where the conditions are less difficult.[985]

7.561. The United States also notes that in order to assist captains outside the ETP large purse seine fishery to accurately certify whether a particular set or other gear deployment was dolphin-safe, the NOAA has developed a new training course that covers key aspects of the eligibility criteria and the requirement to segregate dolphin-safe from non-dolphin-safe tuna following catch.[986]

7.562. Second, relying on the separate opinion of one panelist in the first compliance proceedings, the United States argues that the different certification requirements are calibrated because any difference in the accuracy of certifications made in the ETP large purse seine fishery on one hand

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[975] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.224 (ifootnotes omitted).
[976] United States' first written submission, para. 123.
[977] United States' first written submission, para. 124.
[978] United States' first written submission, para. 125.
[979] United States' first written submission, para. 126.
[980] United States' first written submission, para. 127.
[981] United States' first written submission, para. 132.
[982] United States' first written submission, para. 134.
[983] United States' first written submission, para. 135.
[984] By "certifier" we mean a person who observes the fishing effort and certifies whether the effort was dolphin-safe, depending on compliance with established requirements.
[985] United States' first written submission, para. 133.
[986] United States' first written submission, para. 138.

and in other fisheries on the other hand has a rational connection to the differences in risk. The United States explains that even if the conditions facing the certifiers in the ETP large purse seine fishery and other fisheries were the same (which they are not), and a captain working outside the ETP large purse seine fishery were, therefore, a less sensitive mechanism than an AIDCP observer, the regulatory distinction would nevertheless be calibrated in tolerating a higher 'margin of error' for the certifier where the risks to dolphins are lower and tolerating a lower 'margin of error' where the risks to dolphins are higher.[987]

7.563. Mexico disagrees with the United States. According to Mexico, the certification requirements are being applied in a manner that is not even-handed.[988] Mexico advances four main reasons in support of its position.

7.564. First, Mexico argues that the findings made by the first compliance panel concerning the general reliability of captain certification "pertained to captain certifications generally". However, in Mexico's view, many fisheries outside the ETP have substantial deficiencies in regulatory compliance and reporting. Therefore, according to Mexico, although captain certifications may be reliable in some fisheries, they cannot be reasonably relied upon in fisheries where there are widespread regulatory compliance and reporting issues.[989]

7.565. Second, Mexico argues that the new training course developed by the United States contains "clear substantive gaps".[990] Moreover, noting that the training requirement relies on captains to self-certify that they have completed the training course, Mexico submits that a system should be created to keep track of persons who accessed the training materials, or at least require persons to register online and certify that they have reviewed the training information, or even to take an examination. According to Mexico, in the absence of such a system, a captain can easily certify that he or she has taken the training course without actually reviewing the material.[991] In support of this argument, Mexico submits statements made by Bumblebee Seafoods concerning the difficulty of fully implementing the new training requirements.[992] Mexico concludes that the training requirement does not equip vessel captains with the technical skills required to certify that no dolphins were killed or seriously injured in a set or other gear deployment.[993]

7.566. Third, Mexico notes that the 2016 Tuna Measure requires captains of non-purse seine vessels to certify that they did not intentionally deploy gear such as longlines and gillnets on dolphins.[994] According to Mexico, however, the explanation of the concept of "intentional" in the Federal Register notice accompanying the publication of the 2016 Tuna Measure is vague, leaves considerable discretion to the captain, and appears designed to encourage evasion. Moreover, Mexico submits that there is no incentive for captains to report honestly in this regard, and, without observers, there is no mechanism to ensure accuracy of certifications.[995]

7.567. Finally, Mexico argues that the United States' arguments concerning the existence of an acceptable margin of error is not a reasonable approach where the very objective of the Measure is to provide accurate information to consumers regarding the dolphin-safe status of the tuna in the products that they choose to purchase.[996] According to Mexico, it is essential that a dolphin-safe certification be accurate, and to ensure accuracy, trained observers should be present in all fisheries where the risk profiles are comparable to those of the ETP. In Mexico's view, if this is not the case, the certification requirements cannot be considered to be even-handed. Moreover, Mexico argues that even if the Panels were to accept that the margin of error may be calibrated to the different risk profiles of different fisheries, the 2016 Tuna Measure is not properly calibrated in this respect, because the risk profiles of all fisheries other than the ETP large purse seine fishery are not so minor in relation to the ETP large purse seine fishery as to make it even-handed to allow untrained captains to make inaccurate certifications for tuna caught in those fisheries.[997]

[987] United States' first written submission, para. 140.
[988] Mexico's second written submission, para. 94.
[989] Mexico's first written submission, para. 265.
[990] Mexico's first written submission, para. 270.
[991] Mexico's first written submission, para. 271.
[992] Mexico's first written submission, para. 272.
[993] Mexico's first written submission, para. 275.
[994] Mexico's first written submission, para. 276.
[995] Mexico's first written submission, para. 278.
[996] Mexico's first written submission, para. 280.
[997] Mexico's first written submission, para. 283.

7.568. The Panels begin their analysis by noting that, unlike the eligibility requirements, the certification requirements (and the tracking and verification requirements, which we consider later in these Reports) draw distinctions on the basis of different fisheries, rather than different fishing methods. Thus, the certification requirements that apply in the ETP large purse seine fishery apply to *all* large purse seine vessels fishing in the ETP, regardless of whether those vessels actually set on dolphins. The question before us, therefore, is whether the distinction that the 2016 Tuna Measure makes between the ETP large purse seine fishery, on the one hand, and all other fisheries, on the other hand, is calibrated.

7.569. In this connection, we recall the finding of the original panel that:

> [T]he association between schools of tunas and dolphins does not occur outside the ETP as *frequently* as it does within the ETP. This evidence further suggests that although there are indications that intentional setting on dolphins occurs outside the ETP, there are "no records of consistent or widespread fishing effort on tuna-dolphin associations anywhere other than in the ETP.[998]

7.570. The first compliance panel also confirmed that setting on dolphins is not practiced consistently or systematically outside the ETP large purse seine fishery.[999] And on appeal, the Appellate Body found no error in this finding, and reiterated that the evidence submitted by Mexico did not demonstrate the existence of widespread tuna-dolphin association or widespread use of the fishing method of setting on dolphins outside of that fishery.[1000] In the present proceedings too, no evidence has been submitted suggesting setting on dolphins occurs systematically outside the ETP. Accordingly, we consider that the existing finding that setting on dolphins is only practised routinely and systematically in the ETP continues to be relevant to the present proceedings.

7.571. We also recall that, on the basis of our analysis of the evidence on the record, we have concluded that setting on dolphins is a particularly dangerous fishing method that is liable to cause observable and unobservable harms to dolphins at rates significantly in excess of those caused by other fishing methods.

7.572. We are aware that not all large purse seine vessels in the ETP actually do set on dolphins, at least in every set or on every voyage. According to the evidence on the record, dolphin sets make up somewhere near half of all sets by large purse seine vessels in the ETP.[1001] In our view, however, the crucial point is that in the ETP, unlike in other areas of the ocean, large purse seine vessels *are permitted to* and *actually can* set on dolphins in a consistent and systematic manner. One of the purposes of the certification requirement in the ETP is precisely to certify that dolphins were *not* set on, even though the fishing vessels could, both technically and legally, have set on dolphins. Thus, it is not simply the fact that dolphins *are* set on in the ETP large purse seine fishery that gives it its "special risk profile"[1002], but the fact that only in the ETP are large purse vessels actually able and permitted to set on dolphins. Thus, in our view, it is both the technical and legal possibility of setting on dolphins and the fact that dolphin sets occur in a consistent and systematic manner in the ETP large purse seine fishery that gives this fishery its special risk profile.

7.573. Having made these observations, we now turn to consider whether the different certification requirements are appropriately calibrated. As noted above, in the first compliance proceedings, the panel accepted that, because "the nature and degree of the interaction [with dolphins] is different in quantitative and qualitative terms"[1003] in the ETP than in other fisheries, it may be necessary to have one single person on board a large purse seine vessel in the ETP with the responsibility of keeping track of those dolphins caught up in the chase and/or the purse seine nets set, whereas there may be no need in other fisheries to have a single person on board a fishing vessel whose sole task is to monitor the safety of dolphins during the set or other gear deployment.[1004]

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[998] See Panel Report, *US – Tuna II (Mexico)*, para. 7.520 (internal citations omitted, emphasis in original).
[999] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.240.
[1000] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.226.
[1001] See United States' first written submission, para. 50, Table 2.
[1002] Panel Report, *US – Tuna II (Mexico) Article 21.5 – Mexico)*, para. 7.398.
[1003] Panel Report, *US – Tuna II (Mexico) Article 21.5 – Mexico)*, para. 7.240.
[1004] Panel Report, *US – Tuna II (Mexico) Article 21.5 – Mexico)*, para. 7.240.

7.574. In the present proceedings, however, Mexico contests the proposition that the task of certifying is more difficult in the ETP than outside it. Indeed, according to Mexico, the opposite is true.[1005] In Mexico's view, the certifier in the ETP large purse seine fishery is a highly-trained scientific observer whose sole function aboard a fishing vessel is specifically to observe all procedures relating to dolphins during fishing sets, to monitor compliance with all mandatory dolphin-protection procedures, and to provide written reports on any and all bycatch and interactions with marine mammals, including detecting and reporting on any mortalities or serious injuries caused to dolphins in the course of a fishing set. This is the observer's sole priority.[1006] Mexico contrasts this situation with the situation outside the ETP large purse seine fishery, where, it submits, the certifier is the captain of the fishing vessel. According to Mexico, the captain has a number of other important responsibilities that are given more priority, relating to the operation of the vessel and fishery manoeuvres, than observing fishing sets or gear deployments to detect harms to dolphins. It is those other responsibilities that require the captain's attention during a fishing set or gear deployment, rather than closely observing the fishing operation for signs of mortality or serious injury to dolphins.[1007]

7.575. Moreover, Mexico maintains that in the ETP, dolphin interactions are anticipated and carefully controlled or prevented during AIDCP-compliant dolphin encirclement manoeuvers. According to Mexico, any mortalities or serious injuries that might occur are evident because the affected animals will be either unable or less able to exit from the net as it is pursed closed and 'rolled up'. Mexico further submits that harms to dolphins would also be noted by the crew rescue teams and divers inside the net area that patrol and observe the dolphins' behaviour inside the net and their release during the 'back down' procedure.[1008] Mexico contrasts this situation with the situation in fisheries other than the ETP large purse seine fishery, where unanticipated and/or uncontrolled dolphin interactions may be more difficult to identify and observe, particularly by a vessel captain who has simultaneous roles and responsibilities other than observation.[1009]

7.576. The United States does not agree with Mexico on this issue. Echoing its arguments in the first compliance proceedings (which, as we noted above, the first compliance panel accepted), the United States argues that certifying whether a set is dolphin-safe is far more difficult in the ETP than in other fisheries because:

> Every ETP dolphin set involves sustained, intense interactions with, on average, hundreds of dolphins for a sustained period, as the speedboats and helicopter chase and herd the dolphins, the seiner deploys the net and encircles them, and the backdown procedure and manual release of dolphins are conducted. Many interactions are happening simultaneously in different places as the set proceeds. On average, ETP large purse seiners capture and (attempt) to release about 350 dolphins every set.[1010]

7.577. The United States contrasts this with the situation in other fisheries, where any dolphin interaction is rare and involves, on average, only a few dolphins.[1011]

7.578. In our view, the finding of the first compliance panel[1012] that it may be necessary to have one single person on board a large purse seine vessel in the ETP with the responsibility of keeping track of those dolphins caught up in the chase and/or the purse seine nets set, whereas there may be no need in other fisheries to have a single person on board a fishing vessel whose sole task is to monitor the safety of dolphins during the set or other gear deployment, is, like other existing findings, a finding from which we should not depart in the absence of new evidence requiring us to do so.[1013] As we see it, Mexico's arguments on this point are not sufficient to require a revision of

[1005] Mexico's response to Panels' question No. 60, para. 12.
[1006] Mexico's response to Panels' question No. 60, para. 13.
[1007] Mexico's response to Panels' question No. 60, para. 14.
[1008] Back down is "a procedure for releasing dolphins over the net's corkline … A channel is formed at the far side of the net and the corkline is submerged so that the dolphins can exit. Speedboats may be used to pull the corkline, thus keeping the channel from collapsing. Crewmen may enter the water, when necessary, to pull dolphins over the corkline". Barbara E. Curry, *Stress in Mammals: The Potential Influence of Fishery-Induced Stress on Dolphins in the Eastern Tropical Pacific Ocean*, NOAA NMFS Technical Memorandum (1999), (Exhibit USA-42), p. 6.
[1009] Mexico's response to Panels' question No. 60, para. 16.
[1010] United States' comments on Mexico's response to Panels' question No. 60, para. 31.
[1011] United States' comments on Mexico's response to Panels' question No. 60, para. 32.
[1012] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.240, 7.242 and 7.245.
[1013] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 5.9.

this existing finding. Most importantly, in our view, Mexico's argument confuses cause and effect. Mexico argues that it is easier to certify dolphin mortality and serious injury in the ETP large purse seine fishery because, *inter alia*, there are dedicated trained observers and there are established procedures governing interactions with dolphins. However, as we understand it, the reason why trained observers are required in the ETP and the reason why procedures are in place governing dolphin interactions is precisely because the parties to the AIDCP considered it necessary to implement such safeguards in the ETP large purse seine fishery due to that fishery's special risk profile. In other words, if it is easier to certify dolphin mortality or serious injury in the ETP large purse seine fishery, that is *because* of the requirements that were adopted for that fishery due to its particularly high risk profile, including the very requirement to have an independent observer on board.

7.579. Moreover, the fact that captains often have responsibilities other than certifying the dolphin-safe status of a set or other gear deployment does not, in our view, mean that it is necessarily more difficult to certify the dolphin-safe status of a set or other gear deployment outside the ETP large purse seine fishery than inside it. In this connection, we find relevant the finding of the first compliance panel that RFMOs and other fisheries and environmental organizations, which are experts in their respective fields, routinely rely on captains' statements in a variety of fishing and environmental areas. For the first compliance panel, this indicated that, generally, such organizations consider captain certifications to be reliable.[1014] This finding was not contested on appeal, and nothing in the evidence submitted in the present proceedings suggests to us that we should depart from or revise it. Moreover, for us, the widespread reliance by RMFOs and other organizations on captain certifications indicates that the fact that captains may have a number of responsibilities is not considered by these fisheries management experts to undermine the ability of vessel captains to properly discharge their sometimes multiple functions.

7.580. Therefore, we see no reason to depart from the finding of the first compliance panel that requiring an independent observer in the ETP large purse seine fishery but not in other fisheries is *prima facie* calibrated to the difference between the risk profile of the ETP large purse seine fishery, on the one hand, and other fisheries on the other hand. However, we recall that the first compliance panel ultimately found that the calibration of the certification requirements was undermined by the fact that captains, although not inherently unable to provide accurate certifications, may not necessarily and always have the specific technical skills required to certify that no dolphins were killed or seriously injured in a set or other gear deployment. The first compliance panel found that this may result in inaccurate information being passed to consumers, contrary to the objectives of the Tuna Measure.[1015]

7.581. In this regard, we recall that, following the first compliance proceedings, the United States introduced a new requirement that captains of vessels operating outside the ETP large purse seine fishery certify completion of an "NMFS dolphin-safe captain's training course" (training course).[1016] According to the United States, this training course includes information on (a) identifying dolphins of the taxonomic family *Delphinidae*; (b) identifying intentional gear deployment on or encirclement of dolphins; (c) identifying dolphin mortality and serious injury; and (d) physically separating dolphin-safe tuna from non-dolphin-safe tuna from the time of capture through unloading. According to the United States, the addition of this training requirement narrows the differences between the different certification requirements.[1017]

7.582. As we noted above, Mexico does not agree that the new training course remedies the problem identified by the first compliance panel. As noted above, Mexico argues that the training course is flawed both because it contains substantive gaps and because it relies on self-certification and cannot be easily implemented.

7.583. With respect to the substance of the training course, Mexico notes that the training course consists of 10 slides that can be read in a number of minutes. Moreover, Mexico draws the Panels' attention to one of the slides, which lists certain injuries that dolphins may suffer and states that "the following injuries, on a case-by-case basis, may or may not indicate a serious injury. However, the presence of multiple injuries may be a serious injury, but again, that depends on the

[1014] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.208-7.209.
[1015] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.233.
[1016] United States' first written submission, para. 121.
[1017] United States' first written submission, para. 121.

severity of each injury on a case-by-case basis".[1018] According to Mexico, the use of language such as "may or may not" implies that captains always have the discretion to decide that there was not a serious injury. Similarly, Mexico contends that terms like "that depends" or "likely" invite interpretation, but that the training course provides no further guidance to captains on how to decide these discretionary issues.[1019] Moreover, Mexico argues that the United States' arguments fail to mention the intensive training undergone by observers in the ETP, who have primary responsibility for certifications under the AIDCP system.[1020]

7.584. The United States responds to Mexico's argument by stating that the training course is much more detailed and clear with respect to the dolphin-safe certifications than the analogous trainings for the ETP large purse seine fishery.[1021] The United States points out that, for example, whereas Mexico claims that it is ambiguous how the word "intentional" should be interpreted, the training in fact states that if deploying the net or gear on or around dolphins was "intentional[]" (i.e. deliberate or on purpose) then the tuna is not dolphin-safe, whereas if the encirclement of a dolphin is "accidental" (in the sense of the dolphin being seen only after the set was commenced), then there is no "intentional deployment". According to the United States, this is significantly more guidance than is given to captains in the AIDCP training, and at least equal to the guidance given by the RFMOs that proscribe intentionally setting on cetaceans.[1022] Moreover, the United States argues that the training course is also much more detailed concerning identifying mortalities and serious injuries than the AIDCP captain training and the AIDCP requirements for observers.[1023]

7.585. In our view, the training course appears to provide useful guidance to vessel captains. It contains relatively detailed information about dolphin anatomy and taxonomy[1024], identifying an intentional dolphin set[1025], identifying dolphin mortality and serious injury[1026], and maintaining physical segregation between dolphin-safe and non-dolphin-safe tuna.[1027] With respect in particular to identifying serious injury, the training course defines "serious injury" as meaning an injury that is more likely than not to lead to the death of the dolphin.[1028] It then contains a list of injures that indicate serious injury[1029], followed by the list mentioned by Mexico in its arguments, i.e. a list of injuries that "may or may not" indicate serious injury.[1030]

7.586. We do not agree with Mexico that this second list is insufficiently detailed. In addition to the definition of serious injury, which would obviously guide a captain in deciding whether or not an injury constitutes serious injury, the training course provides some additional guidance by indicating that "the presence of multiple injuries may be a serious injury". Moreover, we do not consider that the terms "likely" or "severity" lack clarity. To the contrary, it seems to us that they are used in the training course in their plain sense, and there is no evidence on the record suggesting that captains would not be able to understand them. Additionally, we do not agree with Mexico that the language used in the second list "implies that captains always have the discretion to decide that there was not a serious injury".[1031] As we have explained, the training course contains two lists, one of which lists injuries that should be considered serious injuries. It does not appear that captains would have any discretion not to certify the occurrence of such injuries. Neither do we consider that captains would have difficulty identifying the kinds of injuries enumerated in the two lists.[1032] They appear to us to be described in plain language, and technical anatomical terms (such as "dorsal fin") are already clearly explained in a previous slide.

[1018] NOAA, Dolphin-Safe Captain's Training Course (March 23, 2016), (Exhibits USA-10, MEX-56).
[1019] Mexico's first written submission, para. 270.
[1020] Mexico's response to Panels' question No. 103, para. 195.
[1021] United States' third written submission, para. 119.
[1022] United States' third written submission para. 119.
[1023] United States' third written submission para. 120.
[1024] NOAA, Dolphin-Safe Captain's Training Course (March 23, 2016), (Exhibits USA-10, MEX-56), pp. 4-5.
[1025] NOAA, Dolphin-Safe Captain's Training Course (March 23, 2016), (Exhibits USA-10, MEX-56), p. 6.
[1026] NOAA, Dolphin-Safe Captain's Training Course (March 23, 2016), (Exhibits USA-10, MEX-56), pp. 7-9.
[1027] NOAA, Dolphin-Safe Captain's Training Course (March 23, 2016), (Exhibits USA-10, MEX-56), pp. 10-11.
[1028] NOAA, Dolphin-Safe Captain's Training Course (March 23, 2016), (Exhibits USA-10, MEX-56), p. 7.
[1029] NOAA, Dolphin-Safe Captain's Training Course (March 23, 2016), (Exhibits USA-10, MEX-56), p. 8.
[1030] NOAA, Dolphin-Safe Captain's Training Course (March 23, 2016), (Exhibits USA-10, MEX-56), p. 9.
[1031] Mexico's first written submission, para. 270.
[1032] See Mexico's second written submission, para. 89.

7.587. We also note Mexico's argument that the official guidelines published by the US Department of Commerce for its scientists on determining serious injury prove that the United States considers certifying serious injury to be a complex task, and show that the NOAA training course is "insufficient to provide the training that the US Department of Commerce itself believes is necessary to recognize and appropriately record serious injuries".[1033]

7.588. In our view, the guidelines published by the US Department of Commerce do not necessarily provide a model against which other training courses must be measured. The fact that the US Department of Commerce has prepared detailed guidelines – which, we note, are designed for scientists rather than vessel captains – does not necessarily indicate that the United States considers this to represent a "minimum standard" of training. At any rate, we do not consider that there is, in fact, a very significant difference between the US Department of Commerce guidelines and the NOAA training course. Both the guidelines and the NOAA course identify many of the same injuries. Moreover, the guidelines, like the NOAA course, indicate that some injuries should always be classified as serious, whereas others may or not be, depending on the severity.[1034] And like NOAA course, the guidelines provide, in respect of injuries that may or may not be serious, additional indications that may counsel towards a determination of serious injury. The two documents thus seem to us to be quite similar.

7.589. Based on the foregoing, we do not consider that the training course has significant substantive gaps. Rather, we consider that it contains meaningful information concerning key aspects of the certification process that would assist captains to understand and properly carry out their responsibility to certify the dolphin-safe status of a set or other gear deployment.

7.590. With respect to the fact that the training course is self-certifying and may be difficult to implement, we begin by noting that, had the United States established an online register or examination as Mexico suggests, such a register may have contributed to or facilitated the enforceability of the training course. We do not consider, however, that without such a register the training course is "meaningless", as Mexico suggests.[1035]

7.591. While it is true that the training course is self-certifying, we note that, under the architecture of the 2016 Tuna Measure, the private tuna companies that supply the US tuna market are subject to the requirements of the 2016 Tuna Measure, and it is they that must ensure that the products they sell meet the conditions of US law, including that the captain certifications are accurate. Indeed, as the first compliance panel recognized, there are a range of legal consequences for submitting false certifications to the NMFS.[1036] It seems to us that a number of

[1033] Mexico's response to Panels' question No. 103, paras. 198 and 199.

[1034] In this connection, we note that the guidelines use some of the same terms, such "severity", as are used in the NOAA course, and in respect of which Mexico has complained about ambiguity.

[1035] Mexico's second written submission, para. 88.

[1036] The United States notes the following, which seem to us to be particularly relevant:

> *Criminal Penalties for Fraudulently Importing or Bringing in Merchandise.* 18 USC Section 545 establishes criminal liability for any person who "knowingly and willfully, with intent to defraud the United States" brings or attempts to bring into the United States "any merchandise which should have been invoiced, or makes out or passes . . . through the customhouse any false, forged, or fraudulent invoice, or other document or paper". According to the United States, penalties include fines of up to $250,000 and up to 5 years imprisonment, and merchandise entered in violation of this law may be forfeited. Depending on the facts of the particular case, tuna product companies, as well as US and foreign captains, could be held liable under this provision for false dolphin safe certifications. United States' third written submission, para. 123.
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> *Criminal Penalties for Making a False Statement or Writing.* 18 USC Section 1001 establishes criminal liability for any person who "knowingly and wilfully" "makes a materially false, fictitious, or fraudulent statement or representation" or "makes or uses any false writing or documents knowing the same to contain any materially false, fictitious, or fraudulent statement or entry" to the US government in any matter within its jurisdiction. Violation of this provision may be punished by a fine of up to $250,000 and/or up to 5 years imprisonment. Section 1001 could potentially cover false statements on a Form 370 or a dolphin safe certification, if the captain or observer intentionally lied. Both US and foreign captains could potentially be liable under Section 1001 for making a false certification. United States' third written submission, para. 123.
>
> *Administrative Penalties for Violating the Dolphin Safe Regulations.* 16 USC Section 1375 provides for a civil administrative penalty for"any person who violates any provision of this subchapter or of any permit or regulation issued thereunder". The penalty may be up to

these penalties may be applicable in cases where a tuna is imported with a Form 370 containing a false self-certification in respect of the training course. In our view, these sanctions provide important support to the new training requirement, and would create powerful incentives for tuna companies to ensure that the captains who pilot the vessels from which they purchase tuna truthfully certify their completion of the training course.

7.592. Indeed, in our view, the statements submitted by Mexico from Bumblebee Tuna and TriMarine appear to support the view that US tuna companies have incentive to, and actually do, take the training requirement seriously. Thus, in its letter to the NMFS, BumbleBee states that "*we* find this component of the rule extremely challenging, if not virtually impossible, to fully implement".[1037] Similarly, in its letter TriMarine observes that the new training course "places a significant and undue administrative burden *on US tuna businesses and international supply chains*", and observes that even though many vessel captains "may not have access to computers, nor even be fully literate", "it is now *the responsibility of the buyers of their fish to ensure that they*" have completed the training course.[1038] These statements express concern about the additional administrative burden that is placed by the new training requirement *on US tuna companies*, as well as about the sanctions that may apply to such companies if they fail to properly implement the requirement. This indicates that these companies see the requirement as meaningful and enforceable, albeit difficult *for them* to implement.

7.593. In this connection, we recall the observation of the first compliance panel (made in the context of the different tracking and verification requirements) that "there is nothing inherently problematic, from the perspective of WTO law, about governments delegating functions to private entities, including industry".[1039] We maintain this view, and see no problem with the 2016 Tuna Measure imposing responsibility to US importers of tuna to ensure that vessel captains undertake the necessary training, at least where, as we believe is the case, the training requirement is embedded within a sufficiently enforceable regulatory framework. The fact that tuna companies may have difficulty implementing the requirement is not, in our view, directly relevant to the question of whether the different certification requirements are calibrated to the different risks to dolphins arising from the use of different fishing methods in different areas of the ocean. Private enterprises often have to respond to regulatory interventions, but this fact does not, in our view, render the regulatory intervention meaningless or unenforceable.

7.594. Moreover, it appears that some of the concerns expressed by BumbleBee and TriMarine concerning the practicability of enforcing the training requirement have been addressed by the United States. For example, BumbleBee expresses concern that the course "will not reach thousands of small scale tuna boat operators in developing nations", including because, at the time of writing, the course was only available in English.[1040] However, the course is in fact available in Mandarin Chinese, Indonesian, Japanese, Korean, Spanish, Tagalog, Thai, and Vietnamese, as well as English, and data from the NOAA Form 370 database for 2005-2013 shows that 90% of records associated with the importation of frozen and/or processed tuna came from vessels flying the flags of countries or territories that have at least one of the nine languages in which the course is available as an official language.[1041] Similarly, we note that the United States has sent a démarche to embassies of all countries that supply tuna product to the United States notifying these countries of the TTVP training course, and has mailed over 2,100 hard copies of the Training Course to fishermen, importers, and processors.[1042] In our view, these actions suggest that the

> $27,500 per violation and up to $100,000 and/or up to a year's imprisonment per knowing violation. The dolphin safe regulations fall within the scope of this provision. Thus making a false statement or certification about the dolphin safe status of tuna on an FCO would violate 50 CFR Sections 216.24(f)(2) and (4), which require that a "properly completed" and "accurate" Form 370 accompany all imported tuna product.[1036] This provision covers those who produce, import, distribute, or sell tuna product. United States' third written submission, para. 123.

[1037] Bumblebee Seafoods, Comments on Enhanced Document Requirements and Captain Training Requirements to Support Use of Dolphin Safe Label on Tuna Products (April 15, 2016), (Exhibit MEX-57) (emphasis added).

[1038] Tri Marine, Enhanced Document Requirements and Captain Training Requirements to Support Use of Dolphin Safe Label on Tuna Products, p. 1 (April 22, 2016), (Exhibit MEX-58) (emphasis added).

[1039] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.368.

[1040] Bumblebee Seafoods, Comments on Enhanced Document Requirements and Captain Training Requirements to Support Use of Dolphin Safe Label on Tuna Products (April 15, 2016), (Exhibit MEX-57).

[1041] William Jacobson Second Witness Statement (July 21, 2014), (Exhibit USA-11), Appendix 1.

[1042] United States' first written submission, para. 27, fn. 43.

United States is aware of the potential difficulties tuna companies may face in implementing the training requirements, and is taking steps to facilitate the dissemination of the training course.

7.595. Taking these considerations into account, we are of the view that the new training requirements do indeed narrow the difference between the certification requirements that apply in the ETP large purse seine fishery and other fisheries, as the United States argues. Unlike the situation under the 2013 Tuna Measure, we consider that the training course incorporated in the 2016 Tuna Measure contains meaningful information concerning key aspects of the certification process that would assist captains to understand and properly carry out their responsibility to certify the dolphin-safe status of a set or other gear deployment. We also consider that the training requirement is embedded within a sufficiently enforceable regulatory framework, and are therefore not meaningless or unenforceable, as Mexico contends. We also note that the training course is being actively disseminated by the United States itself, in order to facilitate the effective implementation of the training requirement.

7.596. Having said all of the above, we nevertheless recognize that the new training course is not the same as the training that AIDCP observers receive. For example, although we have found above that the NOAA training course contains meaningful information concerning key aspects of the certification process that would assist captains to understand and properly carry out their responsibility to certify the dolphin-safe status of a set or other gear deployment, we also recognize that a 10-slide training course is not equivalent to a degree in biology or a related subject (zoology, ecology, etc.), which AIDCP observers are required to have. Moreover, AIDCP observers apparently receive extensive training. For example, Mexico has submitted a sample program of an observer training course that lasts 16 days, which covers a range of topics related to dolphins.[1043]

7.597. Similarly, although we have found that many fisheries management experts rely on captain certifications, and therefore that such certifications are not inherently unreliable, we acknowledge, as did the first compliance panel, that observer certification could strengthen the certification system, and may "heighten[] or increase[] the accuracy and reliability of the label".[1044]

7.598. Finally, we accept some of the concerns raised by BumbleBee and TriMarine, in particular relating to the possible lack of Internet access and illiteracy among some tuna vessel captains, suggest that there may be some captains who are unable or unwilling to complete the training course. Additionally, there may be captains who do not understand any of the languages in which the course is available, and who consequently will not be able to complete the training.

7.599. The above factors indicate that, although the 2016 Tuna Measure has narrowed the difference between the certification requirements that apply in the ETP large purse seine fishery and other fisheries, differences remain. It also appears to us that, as the first compliance panel found, these differences may make it easier or more likely for dolphin-safe certifications made only by captains to be inaccurate than it is for dolphin certifications made by captains and observers.[1045]

7.600. However, we do not consider that this deprives the certification requirements of calibration. Rather, we believe that the differences that still exist between the certification requirements in the ETP large purse seine fishery and those that exist in other fisheries are calibrated to the different risk profiles associated with those fisheries.

7.601. In arriving at this conclusion, we draw on the reasoning provided by the panelist who wrote a separate opinion in the first compliance proceedings, which we find particularly compelling in the light of the Appellate Body's emphasis in the first compliance proceedings on the importance of conducting a calibration analysis. The separate opinion contained the following passages:

> [N]either captain nor observer certification is capable of detecting *every* instance of dolphin mortality or serious injury. The language of the certification notwithstanding, all that can really be certified, by either a captain or an observer, is that no dolphin

[1043] Agenda de trabajo para el curso de observadores a bordo de barcos atuneros de la Comisión Interamericana del Atún Tropical, Manta - Ecuador, mayo 23 al 9 de junio de 2016, (Exhibit MEX-86).
[1044] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.168.
[1045] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.168.

> mortality or serious injury was *detected* – that is, observed - in a set or other gear deployment. The capacity for human error being what it is, it is simply impossible for even the most highly qualified observer to say with certainty that *no* dolphin was killed or seriously injured during a fishing operation. Both the observers' and captains' certificate should be seen as reliable indication of whether dolphin mortality or injury was detected or not. However, it is obvious that when there is no independent observer on board, the probability that dolphin mortality or serious injury is detected is less likely than in situations where a specially trained independent observer is on board.
>
> The consequence of this is that, in respect of both captain and observer certification, a certain degree or margin of error is necessarily tolerated. The margin of error may be smaller in the case of observer certification than in the case of captain certification; but in both cases there is always some chance that a dolphin death or serious injury will go unobserved. Accordingly, we can talk of the difference between captain and observer certification not only in terms of *how accurate or sensitive* each one is, but also in terms of how *large a margin of error* each one allows.
>
> Now, accepting that certification, whether by captain or observer, always allows a certain margin of error, the question is whether it is acceptable, under Article 2.1 of the TBT Agreement, for the United States to tolerate a greater margin of error in the mechanisms in place outside the ETP large purse seine fishery than inside it. In my view, it is. Put simply, my opinion is that where the probability of dolphin mortality or serious injury is smaller – because, for instance, the degree of tuna-dolphin association is less likely - the United States may accept a proportionately larger margin of error. Conversely, where the risks are higher, it may be appropriate to tolerate only a smaller margin of error. Provided that the tolerated margin of error is, to use a term from the original proceedings, "calibrated" to the risks faced by dolphins in a particular fishery, the mere fact that the detection mechanisms inside the ETP large purse seine fishery and outside of it are not the same does not deprive the amended tuna measure of even-handedness. Indeed, understood in this sense, "calibration" of the acceptable margin of error to the degree of risk in a particular fishery seems to me to be at the very heart of the even-handedness analysis in this case.
>
> A hypothetical may help to clarify my view. Say a city imposes a speed limit of 80 km/h on all roads. Say also that to detect violations of this speed limit, the city has developed a system of police observation. Now, assume that suburb A has a higher incidence of speeding than does suburb B. As a result, the city requires police observation every day on major roads in suburb A with highly sensitive detectors, but only four days a week in suburb B with less sensitive machines. Could such a set-up be described as lacking even-handedness? In my view, it could not. As I see it, it is entirely reasonable for governments, in the course of enforcing regulations, to vary the intensity of their detection mechanisms in accordance with the historical incidence of and future potential for violations. Provided that there is a rational connection between the variation in intensity and the difference in risk, I would not find that the implementation of different detection mechanisms lacks even-handedness or is otherwise discriminatory.[1046]

7.602. As we have stated above, in the light of the Appellate Body's emphasis on calibration in these proceedings, we consider that analysing the relationship between any margin of error existing under the 2016 Tuna Measure and the degree of risk in a particular fishery may be an important consideration in our calibration assessment. In the context of the certification requirements, our view is that it is calibrated for the United States to tolerate a higher margin of error in respect of fisheries other than the ETP large purse seine fishery and to tolerate a lower margin of error inside the ETP large purse seine fishery. This is so because, as we have explained, the ETP large purse seine fishery has a special risk profile.

7.603. Specifically, as we have explained, the association between dolphins and tuna and the interaction between fishing vessels and dolphins are particularly intense in the ETP. The ETP is the

[1046] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.274-7.277 (emphasis in original).

only area of the ocean where setting on dolphins can technically and legally be carried out in a consistent and systematic manner.[1047] In our view, the unique intensity of the association and interaction explains why the parties of the AIDCP considered it necessary to place observers on-board large purse seine vessels in the ETP large purse seine fishery whose sole task it is to monitor dolphin interactions and certify the dolphin-safe status of a set. Conversely, the relatively low risk profiles of other fisheries, which result from both the absence of a tuna-dolphin association similar to that in the ETP and the fact that other fishing methods pose relatively fewer risks to dolphins, and in many cases do not interact with dolphins at all, explain why the 2016 Tuna Measure does not generally require observer certification in those fisheries. To use the language of the separate panelist in the first compliance proceedings, the significantly higher risk profile of the ETP large purse seine fishery *vis-à-vis* other fisheries explains the use in the former of more sensitive detection mechanisms.

7.604. Mexico argues that the use of a less sensitive mechanism outside the ETP large purse seine fishery cannot be even-handed if it would result in the label becoming less accurate.[1048] According to Mexico, any possibility of label inaccuracy would be inconsistent with the objectives of the 2016 Tuna Measure, because "[i]f the dolphin-safe information regarding the tuna in products is inaccurate, then consumers cannot make a properly informed or meaningful decision".[1049] According to Mexico, "[a]ccuracy cannot be calibrated".[1050]

7.605. Mexico's argument appears to us to be premised on the notion that certification can guarantee accurate labelling in every case. However, as the separate panelist explained in the first compliance proceedings (and as the United States recognizes in these proceedings[1051]), certification, whether by captain or captain and observer, is unlikely to be able to detect *every* instance of dolphin mortality or serious injury in every case. In our view, it is unlikely that any system could be completely error-proof. Neither, in our view, must the United States' dolphin-safe labelling regime be completely error-proof in order to be calibrated. Rather, as we see it, the more pertinent question is whether the possibility of error is tailored to, or commensurate with, the different risks to dolphins arising from the use of different fishing methods in different areas of the ocean.

7.606. In our view, a measure that tolerates a larger margin of error where a risk is low, but tolerates a lower margin of error where the risk is high, may very well be calibrated. Thus, insofar as the different certification requirements tolerate a higher margin of error in respect of fisheries where the risk to dolphins is relatively low, but tolerate a lower margin of error in fisheries where the risk to dolphins is relatively high, we consider that they could be tailored to or commensurate with the relevant relative risks. As we have established above, the ETP large purse seine fishery has a special risk profile that sets it apart from other fisheries. This is due both the intense tuna-dolphin association and the fact that only in the ETP is setting on dolphins, which is particularly harmful to dolphins, possible and permitted on a consistent and systematic manner. In the light of the ETP's special risk profile, we consider that it is calibrated for the United States to require a more sensitive mechanism in the ETP large purse seine fishery, while tolerating a less sensitive mechanism in other fisheries, which have relatively lower risk profiles. In our view, this distinction addresses the relative risks posed to dolphins in the ETP large purse seine fishery on the one hand and other fisheries on the other hand in a way that is calibrated to, tailored to, and commensurate with the risk profiles of those fisheries.[1052]

7.607. We also do not believe that, by tolerating a higher or lower margin of error, the certification requirements conflict with the objectives of the 2016 Tuna Measure. This is because, in our view, the risk of inaccurate certification is not a constant that remains unchanged in all fisheries. Rather, the risk of inaccurate certification seems to us to be closely tied to the level of risk posed to dolphins by the use of a particular fishing method in a particular area of the ocean. That is, in our view the risk of inaccurate labelling is a function, *inter alia*, of the risk profile of a fishery. In a fishery where there is *no* dolphin interaction, the risk that a certifier (whether captain or observer) may make an incorrect dolphin-safe certification will surely be very low, if not zero.

[1047] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.226.
[1048] Mexico's response to Panels' question No. 86, para. 147.
[1049] Mexico's comments on the United States' response to Panels' question No. 40, para. 94.
[1050] Mexico's response to Panels' question No. 86, para. 147.
[1051] United States' comments on Mexico's response to Panels' question No. 76, paras. 91-92.
[1052] See Appellate Body Reports, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.122; *US – Tuna II (Mexico)*, para. 292.

On the other hand, where there is significant dolphin interaction, or where there is evidence that a fishing method has a history of causing harms to dolphins, the chance of inaccurate labelling may be higher (since there is more risk that a dolphin will be killed or seriously injured). In this sense, the possibility of inaccurate certification seems to us to be tied not only to the presence or absence of an observer, but also to the relative risk profiles in different fisheries. These two factors work together, such that where the risk profile is higher, an independent observer may be needed to counterbalance the heightened risk. Conversely, in fisheries with relatively low risk profiles, captain certification may be sufficient.

7.608. Thus, in our view, the mere fact that a vessel has an observer on-board does not necessarily, or in isolation, mean that that vessel less likely to produce an inaccurate certification. As the first compliance panel recognized[1053], accuracy is a function of potentially many variables. Thus, while an observer may strengthen the certification, such additional strength may not always be needed, as in fisheries where the risk profile is relatively low.

7.609. Finally, we note that the certification requirements are complemented by the determination provisions. We will discuss the determination provisions in detail later in these Reports. For present purposes, it suffices to note that the 2016 Tuna Measure fills the gap in the determination provisions identified by the panel and the Appellate Body in the first compliance proceedings. In the first compliance proceedings, the panel found that the determination provisions "open[ed] up a gap in the certification procedures applied outside the ETP large purse seine fishery" because a determination of regular and significant mortality could not be made in respect of purse seine fisheries outside the ETP, and a determination of regular and significant tuna-dolphin association could not be made in respect of a non-purse seine fishery.[1054] On appeal, the Appellate Body confirmed that "the determination provisions do not provide for the substantive conditions of access to the dolphin-safe label to be reinforced by observer certification in all circumstances of comparably high risk".[1055]

7.610. In response to these findings, the United States amended the determination provisions in the 2016 Tuna Measure. Under the 2016 Tuna Measure, an observer certification may be required in addition to a captain certification where the Assistant Administrator of NOAA has determined that the fishery in question has a regular and significant tuna-dolphin association (similar to that in the ETP), or has regular and significant dolphin mortality or serious injury.[1056] This means that the 2016 Tuna Measure contains sufficient flexibility to enable the United States to impose the same requirements in fisheries where the same degree of risk prevails.[1057] Thus, where the risks rise to a level where the requirement of an independent observer would be "commensurate", the determination provisions enable the United States to so require. The determination provisions help to ensure that the certification requirements are calibrated to, tailored to, and commensurate with the relevant relative risks, since they ensure that similar situations are treated similarly under the 2016 Tuna Measure.[1058] In our view, the revised determination provisions help to ensure that the 2016 Tuna Measure addresses the risks posed to dolphins by tuna fishing outside of the ETP large purse seine fishery in a way that is "calibrated" to the risk profiles of those fisheries *vis-à-vis* the special risk profile of the ETP large purse seine fishery.

7.611. For all of these reasons, our opinion is that the certification requirements in the 2016 Tuna Measure address the relative risks posed to dolphins in the ETP large purse seine fishery on the one hand and other fisheries on the other hand in a way that is calibrated to, tailored to, and commensurate with the risk profiles of those fisheries. Accordingly, we consider that the different certification requirements are calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean.

[1053] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.382.
[1054] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.263.
[1055] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.266.
[1056] 50 CFR Section 216.91(a)(3)(v), (Exhibits USA-02, MEX-2).
[1057] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.280. See also Appellate Body Report, para. 7.185.
[1058] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.263.

7.8.4 The tracking and verification requirements

7.8.4.1 Introduction

7.612. We now turn to consider whether the tracking and verification requirements are calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean.

7.613. As we have explained in Section 7.4.2 above, tuna products are eligible to receive a dolphin-safe label only if they meet the tracking and verification requirements provided for in the 2016 Tuna Measure. The 2016 Tuna Measure, like the original and the 2013 Tuna Measures, requires that dolphin-safe and non-dolphin-safe tuna, wherever and however caught, be segregated from the moment of catch through the entire processing chain.[1059] However, the requirements pursuant to which tuna must be segregated, tracked, and verified differ between tuna caught in the ETP large purse seine fishery, on the one hand, and other fisheries, on the other hand. This is because the tracking and verification of tuna caught in the ETP large purse seine fishery must be conducted consistently with the AIDCP Tracking and Verification System.[1060] However, the tracking and verification of tuna caught in other fisheries must be conducted according to different regulations established under the 2016 Tuna Measure and contained principally in the implementing regulations.

7.614. We recall that in the first compliance proceedings, the panel concluded that, with respect to the second tier of Article 2.1 of the TBT Agreement, Mexico had shown that there was no rational connection between the differential burden created by the different tracking and verification requirements and the objectives of the 2013 Tuna Measure.[1061] In reaching this conclusion, the first compliance panel stated that Mexico's evidence suggested that there were three crucial differences between the tracking and verification system that applies to tuna caught by large purse seine vessels inside the ETP and that which applies to other tuna. These differences were (i) *depth*, (ii) *accuracy*, and (iii) *degree of government oversight* of the tracking and verification systems.[1062]

7.615. Regarding the concept of *depth*, the first compliance panel explained that it understood this concept "to refer to the point to which tuna can be traced back".[1063] It explained that Mexico had shown that tuna caught by large purse seine vessels in the ETP could, pursuant to the record-keeping requirements embedded in the AIDCP and incorporated into the 2013 Tuna Measure, be tracked back all the way to the particular set in which the tuna was caught and the particular well in which it was stored[1064], but that in contrast, it appeared that outside the ETP, tuna could be traced back only to the *vessel* and trip on which it was caught.[1065]

7.616. Regarding *accuracy*, the first compliance panel explained that by using this term it meant "the degree of confidence that a particular captain (or, where applicable, observer) statement properly describes the lot of tuna to which it is assigned".[1066] The panel stated that while Mexico's evidence suggested that the tuna tracking forms required for tuna caught by large purse seine vessels in the ETP accompany particular catches of tuna throughout the fishing and production process, from the point of catch right through to the point of retail[1067], it was not clear how, under the NOAA regime, particular certificates were kept with particular lots of tuna up until the tuna reached the canning plant.[1068] The first compliance panel went on to say that the difficulty of ensuring that a particular certification matched an identified batch of tuna was compounded by the fact that in many cases tuna appears to pass through a number of parties before it reaches a US cannery.[1069] The first compliance panel explained that it did not appear that there was any additional or explicit legal requirement in the 2013 Tuna Measure that US canneries ensure or

[1059] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 6.12; 50 CFR Section 216.93(c)(1)-(3), (Exhibits USA-02, MEX-02).
[1060] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 6.12.
[1061] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.392.
[1062] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.354.
[1063] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.355.
[1064] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.355.
[1065] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.356.
[1066] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.360.
[1067] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.360.
[1068] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.361.
[1069] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.362.

otherwise satisfy themselves, at the time they receive a batch of tuna, of either the validity of a dolphin-safe certificate or whether such certificate in fact described the batch of tuna with which it was associated.[1070] Regarding this last point, the first compliance panel noted that under 50 CFR Section 216.93(g)(1), canneries were required to "maintain records", but there did not appear to be any legal requirement that the canneries verify the accuracy of the records, or that the records in fact correctly describe the particular batches of tuna to which they are assigned.[1071]

7.617. As to *government oversight*, the first compliance panel defined this as "the extent to which a national, regional, or international authority is involved in the tracking and verification process".[1072] It explained that according to Mexico's evidence, in respect of tuna caught by large purse seine vessels in the ETP, information concerning every stage of the tuna catch and canning process was made available to national and regional authorities, which had to be sent copies of tuna tracking forms and were thus able to verify at any stage of the catch and canning process whether a particular batch of tuna was dolphin-safe. The first compliance panel also noted that various national and regional authorities were also required to be notified whenever ownership of tuna changed.[1073] The first compliance panel then went on to contrast these requirements with those under the NOAA regime, and stated that US authorities received information concerning the origin and history of tuna only from US tuna canneries themselves, through the monthly reports that such canneries were required to submit, and when the authorities carried out an audit or spot check.[1074] However, the panel noted that even then it seemed that, under the NOAA regime, the United States was only able to verify that proper tracking mechanisms were implemented from the time the cannery received the tuna.[1075]

7.618. For the first compliance panel, it appeared that the United States had to rely on the canneries for information about the movement of the tuna prior to arrival at the cannery, and the United States was not able to go "behind the documents", as it were, to verify that a particular dolphin-safe certification actually described the batch of tuna with which it was associated. This led the first compliance panel to conclude that the US authorities were not able to ensure that they received information that would enable them to track the movement and dolphin-safe status of tuna from the time of catch up to the point of delivery to a US cannery.[1076]

7.619. The first compliance panel concluded that these three differences showed that the different tracking and verification requirements modify the conditions of competition, in particular, because the system imposed outside the ETP large purse seine fishery was significantly less burdensome than the system imposed inside the ETP large purse seine fishery.[1077] The panel also found that these differences were not even-handed because there was no rational connection between the differential burden created by the different tracking and verification requirements and the objectives of the 2013 Tuna Measure.

7.620. As we have explained above, the Appellate Body found fault in the first compliance panel's analysis and concluded that it "erred in its discrete assessments of the even-handedness of the different certification requirements, and of the different tracking and verification requirements".[1078] With respect specifically to the tracking and verification requirements, the Appellate Body found that the first compliance panel's analysis failed to encompass consideration of the relative risks to dolphins from different fishing methods in different areas of the oceans, and of whether the distinctions that the 2013 Tuna Measure draws in terms of the different conditions of access to the dolphin-safe label were explained in the light of the relative risk profiles.[1079] In this regard, the Appellate Body faulted the panel for failing to identify those risks in respect of tuna caught both inside and outside the ETP large purse-seine fishery, and for failing to compare the different tracking and verification requirements in the light of those risks and the 2013 Tuna Measure's objectives concerning the protection of dolphins and providing accurate consumer information.[1080]

[1070] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.363.
[1071] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.363.
[1072] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.364.
[1073] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.364.
[1074] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.364.
[1075] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.364.
[1076] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.365.
[1077] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.370.
[1078] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.169.
[1079] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.169.
[1080] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.167.

7.621. The Appellate Body also found fault in the first compliance panel's "segmented approach" when analysing the different sets of certification and tracking and verification requirements, as it "did not properly apply the legal test that it had identified as relevant to an assessment of even-handedness, namely, 'whether the detrimental treatment can be reconciled with, or is rationally related to, the policy pursued by the measure at issue.'"[1081] According to the Appellate Body, the panel failed to take "full account … of the manner in which similar circumstances pertaining to the original tuna measure had been assessed in the original proceedings".[1082]

7.622. We note, however, that the Appellate Body did not find any fault with the first compliance panel's conceptual approach to assessing the 2013 Tuna Measure's tracking and verification requirements. In particular, the Appellate Body did not criticize the panel for analysing the differences between the different regimes from the points of view of depth, accuracy and degree of government oversight. Indeed, the parties during the course of the present proceedings have also presented their arguments from the same three points of view. For these reasons, and in particular, being mindful of the Appellate Body's criticism of the fact that first compliance panel failed to take "full account … of the manner in which similar circumstances pertaining to the original tuna measure had been assessed in the original proceedings"[1083], we find it appropriate to follow the conceptual framework devised by the first compliance panel with respect to *depth*, *accuracy* and *degree of government oversight,* in assessing the 2016 Tuna Measure.

7.8.4.2 Arguments of the parties in the present proceedings

7.623. Having recalled the findings made in the previous stages of this dispute, we now move to assess the parties' arguments in the present proceedings.

7.624. The United States argues that the evidence confirms the first compliance panel's finding that the ETP large purse seine fishery has a "special risk profile" for dolphins distinct from the risk profiles of other fisheries.[1084] The United States contends that similar to the eligibility criteria and the certification requirements, the difference in the tracking and verification requirements for tuna products produced from the ETP large purse seine fishery and from other fisheries able to produce dolphin-safe tuna product is commensurate with the different risk profiles of these fisheries. For the United States, given the fact that the Appellate Body has observed that the assessment of the even-handedness of the Tuna Measure "must take account of the fact" that these three aspects "are cumulative and highly interrelated"[1085], it is consistent with both the law and the evidence that the legal conclusion regarding the tracking and verification requirements be consistent with the legal conclusions in respect of the other two aspects of the measure (i.e. the eligibility criteria and the certification requirements).[1086]

7.625. The United States contends that the tracking and verification requirements are calibrated, and thus even-handed, because it is appropriate to use a more "sensitive" mechanism where the risks of dolphin mortality and serious injury are high, and a less "sensitive" mechanism where the risks of dolphin mortality and serious injury are low. For the United States, the fact that the "mechanism" here occurs subsequent to the catch of the tuna does not mean that the calibration argument is rendered irrelevant to this stage of the analysis. Thus, according to the United States, the fact that the two regimes may tolerate different "margin[s] of error[s]" does not mean that the tracking and verification requirements lack even-handedness.[1087]

7.626. The United States argues that any difference in the "margin of error" caused by the different requirements is commensurate to the difference in risk because there is a significant difference in the risk profile for dolphins of the ETP large purse seine fishery compared to other fisheries that can produce dolphin-safe tuna, including in terms of direct dolphin mortalities caused in the fisheries. For the United States, this indicates that there is a greater likelihood that a vessel

[1081] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.169 (referring to Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.91).
[1082] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.169.
[1083] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.169.
[1084] United States first written submission, para. 171 (referring to Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.398).
[1085] United States first written submission, para. 172 (referring to Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico),* para. 7.166).
[1086] United States first written submission, para. 172.
[1087] United States first written submission, para. 173.

in the ETP large purse seine fishery will produce both dolphin-safe and non-dolphin-safe tuna on any fishing trip and that the two groups of tuna will have to be segregated and tracked.[1088]

7.627. The United States further contends that any differences between the two "mechanisms", i.e. the tracking and verification systems, are small, particularly in the light of the significant difference in risk between the ETP large purse seine fishery and other fisheries.[1089] Regarding *depth*, the United States contends that both the AIDCP and NOAA regimes require that tuna product that is dolphin-safe (for purposes of their respective regimes) be traceable back to the harvesting vessel and trip and to the group of wells that held dolphin-safe tuna. Regarding *accuracy*, the United States contends that both regimes require chain of custody recordkeeping sufficient to enable national authorities to trace a particular lot of tuna from harvesting through processing. Regarding *government oversight*, both regimes enable a government authority to obtain documentation "concerning every stage of the tuna catch and canning process" and thus both enable governmental authorities to "go behind" the dolphin-safe certifications to the same extent.[1090]

7.628. The United States argues that it would not be consistent with a calibrated approach to rigidly impose the same level of tracking and verification requirements for all fisheries where there is *any* risk of dolphin harm. The United States contends that the differences in the 2016 Tuna Measure's tracking and verification requirements conform to the recordkeeping requirements that participants in different fisheries have adopted, in particular, the IATTC, which manages all the tuna fisheries in the ETP, and does not require similar recordkeeping for longline or pole and line vessels.[1091]

7.629. Mexico contends that under the 2016 Tuna Measure, dramatic differences remain between the tracking and verification requirements for tuna caught by large purse seine vessels in the ETP and tuna caught elsewhere.[1092] Mexico argues that the 2016 Tuna Measure continues to require that tuna products caught by large purse seine vessels in the ETP be supported by the documentation requirements of the AIDCP, and that the AIDCP rules for tracking dolphin-safe tuna are very detailed and comprehensive, applying from the moment of capture of the tuna all the way through unloading of the tuna, and then to the processing and marketing of the tuna products containing that tuna.[1093] Mexico further contends that the 2016 Tuna Measure purports to require US processors and importers to collect and retain for two years "information on each point in the chain of custody regarding the shipment of the tuna or tuna product to the point of entry into US commerce", but that this is merely a repetition of what the United States said was already the situation under the 2013 Tuna Measure, namely, that it was completely dependent on importers and processors, with no government oversight of the catch and processing operations that take place outside the United States.[1094]

7.630. Regarding the applicable legal test to assess the tracking and verification requirements, Mexico contends that the United States' proposed standard, whereby it is appropriate to use a more "sensitive" mechanism where the risks of dolphin mortality and serious injury are high, and a less "sensitive" mechanism where the risks of dolphin mortality and serious injury are low[1095], is legally incorrect. Mexico refers to its general arguments on the calibration test and underscores that the regulatory differences that pertain to the accuracy of information provided to US consumers are an integral part of the calibration test. In Mexico's view, where there are deficiencies in control and monitoring, a more stringent or more "sensitive" mechanism should be used in order to ensure that the information is accurate, as otherwise, any difference in the relevant regulatory distinctions that result in the provision of inaccurate information to consumers would be contrary to the 2016 Tuna Measure's objectives.[1096]

[1088] United States first written submission, para. 174.
[1089] United States first written submission, para. 175.
[1090] United States first written submission, para. 175 (referring to Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.364-7.365).
[1091] United States' first written submission, paras. 175-176.
[1092] Mexico's first written submission, para. 285.
[1093] Mexico's first written submission, para. 287.
[1094] Mexico's first written submission, paras. 289-290.
[1095] Mexico's first written submission, paras. 289-290.
[1096] Mexico's first written submission, para. 291.

7.631. Mexico points to the fact that during the first compliance proceedings, the panel determined that the evidence provided by the United States from two major tuna products companies did not demonstrate that those companies could track tuna back to the vessel from which it was caught. Mexico contends that the first compliance panel found that the captains' certifications were associated with lots of tuna only after they arrived at a processing plant.[1097] In this connection, Mexico argues that a form letter dated 28 March 2016 from the US Department of Commerce sent to importers uses similar language to that used in the Federal Register notice that explains the type of documents that are required under the new record keeping provision,[1098] although it adds that the type of documentation that may be used includes Form 370 and the captain's statement.[1099] Mexico claims that, the modifications introduced in the 2016 Tuna Measure therefore appear to contemplate that producers and importers can satisfy the tracking requirements with documents they already have received in the normal course of business. However, according to Mexico, the first compliance panel already found that such documents, including documents obtained by the US Department of Commerce during its verification visits to US producers were insufficient to demonstrate precise tracing back to the vessel that caught the fish.[1100]

7.632. Additionally, Mexico submits that outside the ETP there are no requirements for, and no established practice of, segregating dolphin-safe tuna from non-dolphin-safe tuna in storage wells or during trans-shipment[1101], and that, under the 2016 Tuna Measure, to avoid the burdens of segregation, captains will have an even stronger incentive than previously not to disclose dolphin mortalities and serious injuries.[1102]

7.633. Mexico also argues that the US Department of Commerce lacks jurisdiction to audit foreign fishing vessels, carrier vessels, and foreign processors, and the new regulations do not impose any obligation on US processors or importers to validate the documentation they receive.[1103] Mexico claims that under some other US government regulatory compliance programs, unrelated to fishing, a US company would be expected to audit its suppliers or customers, and to have records of such audits available for review by governmental authorities, but notes that there is no such obligation under the new regulations.[1104]

7.634. Mexico contends that in the first compliance proceedings, it submitted extensive evidence regarding the complex supply chain for tuna, the widespread practice of trans-shipping, and the problem of IUU fishing, and that the first compliance panel took note of the issue.[1105] Mexico maintains that, unlike the Mexican industry, most major tuna products companies in other countries are not vertically integrated. According to Mexico, tuna companies in these countries purchase tuna from third party companies, and in many cases tuna passes through several parties before it is processed.[1106]

7.635. In conclusion, Mexico contends that the changes introduced in the determination provisions do not alter the foregoing, and that a number of the countries that are the largest suppliers of tuna and tuna products, such as Thailand, the Philippines and Chinese Taipei, are significantly deficient in the control and monitoring of fishing activities, and have been identified as extremely vulnerable to IUU fishing.[1107] In this regard, Mexico submitted reports of the European Commission that, according to Mexico, identify significant problems in Thailand, the Philippines and

[1097] Mexico's first written submission, para. 292 (referring to Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.361-7.363, 7.365; Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.55).

[1098] Mexico's first written submission, para. 292 (referring to Enhanced Document Requirements and Captain Training Requirements To Support Use of the Dolphin Safe Label on Tuna Products, 81 Fed. Reg. 15,444 (March 23, 2016), p. 15447, (Exhibit USA-07)).

[1099] Mexico's first written submission, para. 293 (referring to Letter from US Department of Commerce to US tuna importer (March 28, 2016), (Exhibit MEX-60)).

[1100] Mexico's first written submission, para. 294 (referring to Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.356-7.359 **(BCI)** and 7.361).

[1101] Mexico's first written submission, para. 295 (referring to Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.361-7.363 **(BCI)**, 7.365, 7.368-7.370, 7.378, 7.380).

[1102] Mexico's first written submission, para. 295.

[1103] Mexico's first written submission, para. 297.

[1104] Mexico's first written submission, para. 297.

[1105] Mexico's second written submission, para. 96 (referring to Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.352).

[1106] Mexico's second written submission, para. 97.

[1107] Mexico's first written submission, para. 300.

Chinese Taipei with record-keeping and controls, including deficient use of logbooks, lack of traceabilty, and specifically problems with dolphin-safe certifications.[1108]

7.8.4.3 Differences between the NOAA and the AIDCP regimes with respect to tracking and verification

7.636. The Panels begin their analysis by noting that, as argued by Mexico, the 2016 Tuna Measure continues to impose different tracking and verification requirements on tuna products made from tuna caught in the ETP large purse seine fishery, on the one hand, and tuna products made from tuna caught in other fisheries, on the other hand. In particular, the tracking and verification for tuna from the ETP large purse seine fishery must be conducted consistently with the AIDCP Tracking and Verification System[1109], while tuna from other fisheries must be conducted according to different regulations established principally in the implementing regulations.

7.637. Although we have already described in detail the tracking and verification system of the 2016 Tuna Measure in Section 7.4.2 above, we find it essential for our task of assessing whether the tracking and verification requirements are calibrated to differences in the risk profiles of the different fisheries in different parts of the ocean to first pinpoint the relevant regulatory distinctions that the 2016 Tuna Measure draws between tuna caught in the ETP large purse seine fishery, on the one hand, and tuna caught in other fisheries, on the other.

7.638. In this connection, we note that the AIDCP Tracking and Verification System is based on the use of TTFs. Every TTF has a unique number. On every fishing trip, ETP large purse seine vessels must maintain two forms, one to record tuna harvested in dolphin-safe sets, and one to record tuna harvested in non-dolphin-safe sets.[1110] The determination of the dolphin-safe status of tuna is made at the end of each set[1111], and once the tuna harvested in a particular set is on-board, it is loaded into wells of the proper designation and recorded on the trip TTF.[1112]

7.639. Under the NOAA regime, all tuna product imported into the United States, regardless of where the tuna was caught and whether the dolphin-safe label is used, must be accompanied by a Form 370, which designates, *inter alia*, whether the tuna is dolphin-safe. Dolphin-safe and non-dolphin-safe tuna products must have separate Form 370s. For tuna product designated dolphin-safe, Form 370 contains the necessary certifications, and requires identification of the harvesting vessel, the fishing gear used, and the trip on which the tuna was caught.[1113]

7.640. The NOAA regime requires US tuna processors to submit monthly reports to the US Tuna Tracking and Verification Program for all tuna received at their processing facilities. These reports contain the same information as is contained in the Form 370, as well as certain additional information, such as unloading dates and the condition of the tuna products. Additionally, NMFS is empowered to undertake verification activities, including dockside inspections of vessels, monitoring of Form 370s, monitoring of cannery reports, audits of US canneries, and retail market spot checks. Other US agencies may conduct on-board inspections on the high seas and in US waters.

7.641. We note that there are also differences between the two regimes regarding certain other issues. Regarding the storage of tuna once it has been caught, we note that under the AIDCP regime, dolphin-safe and non-dolphin-safe tuna must be kept in separate wells. Any tuna entered into a non-dolphin-safe well is considered to be non-dolphin-safe.[1114] However, there is no requirement that tuna be segregated according to set. Thus, dolphin-safe tuna from different sets can be stored in the same well. In contrast, under the NOAA regime, dolphin-safe tuna must be stored physically separate from non-dolphin-safe tuna by the use of netting, other material, or

[1108] Mexico's first written submission, para. 115.
[1109] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 6.12. As we noted above, the Appellate Body did not find any fault with this conceptual approach adopted by the first compliance panel in assessing the 2013 Tuna Measure's tracking and verification requirements.
[1110] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 3(2), (Exhibit USA-90); AIDCP TTF, (Exhibits USA-91, MEX-106).
[1111] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 4(1), (Exhibit USA-90).
[1112] See International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 4(3), (Exhibit USA-90); AIDCP TTF, (Exhibits USA-91, MEX-106).
[1113] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 6.25.
[1114] 50 CFR Section 216.93(a). 50 CFR Section 216.93(c)(i), (Exhibits USA-02, MEX-02).

separate storage areas from the time of capture through unloading.[1115] Thus, under the NOAA regime, there is no requirement to keep the dolphin-safe and non-dolphin-safe tuna in separate wells. In this regard, we note that the United States recognizes that segregation on-board a harvesting vessel outside the ETP large purse seine fishery could be achieved through the designation of dolphin-safe and non-dolphin safe wells where a vessel has multiple wells, but could also be achieved through the use of netting or other materials.[1116]

7.642. Regarding the processing of tuna during the canning process, under the AIDCP regime, during storage and processing, dolphin-safe and non-dolphin-safe tuna cannot be processed on the same lines at the same time.[1117] Additionally, dolphin-safe and non-dolphin-safe tuna must be unloaded from fishing or carrier vessels into separate bins and each bin must be identified with corresponding TTF number, the dolphin-safe status of the tuna, and confirmed scale weight for the tuna in that bin.[1118] Also, and at the time of unloading, the relevant TTF must be transmitted to the competent authority of an AIDCP party.[1119] Similarly, under the NOAA regime, non-dolphin-safe tuna may not be mixed in any manner or at any time during processing with any dolphin-safe tuna or tuna products and may not share the same storage containers, cookers, conveyers, tables, or other canning or labelling machines.[1120] In regards to the unloading of tuna under the NOAA regime, tuna offloaded to trucks, storage facilities, or carrier vessels must be loaded or stored in such a way as to maintain and safeguard the identification of the dolphin-safe designation of the tuna as it left the fishing vessel. However, under the NOAA regime, there are no similar requirements to that of the AIDCP regime regarding the transmission of the relevant TTF to the competent authority of an AIDCP party; the NOAA regime does not require that equivalent information be sent to US authorities at the same stages of tuna processing.

7.643. With respect to record keeping, under the AIDCP regime, processors must maintain records complete enough to allow the lot numbers of processed tuna to be traced back to the corresponding TTF number.[1121] In addition, tuna exported as dolphin-safe must be accompanied by a certificate of its dolphin-safe status issued by a competent authority, which must include a reference to the relevant TTF number.[1122] National programs established by AIDCP parties should undertake periodic spot checks and audits for tuna products.[1123] Under the NOAA regime, and in particular, under the amendments introduced under the 2016 Tuna Measure introduced in 50 CFR 216.91(a)(5), there are new chain of custody record-keeping requirements for tuna products produced from "other fisheries". Specifically, US processors and importers of tuna or tuna products from such "other fisheries" are now required to collect and retain, for two years, information on each point in the chain of custody of the tuna or tuna product, including information on all storage facilities, trans-shippers, processors, and wholesalers/distributors. This information must be provided to the NMFS upon request and must be sufficient for the NMFS to conduct a trace-back of any product marketed as dolphin-safe to verify that the tuna product in fact meets the dolphin-safe labelling requirements. The information must also be sufficient for the NMFS to trace any non-dolphin-safe tuna loaded onto the harvesting vessel back to one or more storage wells or other storage locations for a particular fishing trip to prove that such non-dolphin-safe tuna was kept physically separate from dolphin-safe tuna through unloading.[1124] In addition, as was the case already under the 2013 Tuna Measure, the NMFS may undertake verification activities such as dockside inspections of vessels, monitoring of Form 370s, monitoring of monthly cannery or

[1115] 50 CFR Section 216.91(a)(4), (Exhibits USA-02, MEX-02).
[1116] United States' first written submission, fn. 303.
[1117] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 6(b) – (c), (Exhibit USA-90)
[1118] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 5(6), (Exhibit USA-90).
[1119] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 5(2) – (5) (Exhibit USA-90).
[1120] 50 CFR Section 216.93(d)(4), (Exhibits USA-02, MEX-02).
[1121] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 6(c), (Exhibits USA-90).
[1122] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 6(d), (Exhibit USA-90).
[1123] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), s 7, (Exhibit USA-90).
[1124] United States' first written submission, para. 28.

processor reports[1125], audits of US canneries[1126], retail market spot-checks, and on-board inspection in US waters and high seas.[1127]

7.644. We observe that additionally, under the NOAA regime, and only if the fishery is designated under the determination provisions, in addition to the above requirements, valid documentation signed by a representative of the vessel flag nation or the processing nation (if processed in another nation) is required. In particular, such documents must certify that the catch documentation is correct[1128]; that the tuna or tuna products meet the dolphin-safe labelling standards[1129]; and that the chain of custody information is correct.[1130]

7.645. Regarding the possible sanctions arising from the breach of the requirements under the two regimes, we note that under the AIDCP regime, sanctions, if any, are dependent upon the legal regime and enforcement of the national authorities (either flag of the ship or any national authority of the AIDCP party in whose territory the tuna is to be processed).[1131] Breaches of the tracking and verification provisions, as well as pending investigations, must be reported to IATTC international review panel.[1132] The scope of sanctions for violations of the AIDCP, pursuant to domestic law of the parties, can take the form, *inter alia*, of a fine[1133] or limitation or revocation of a dolphin mortality limits (DMLs). Similarly, under the NOAA regime, breach of the tracking and verification requirements may lead to the imposition of sanctions. In particular, sanctions for offering for sale or export tuna products falsely labelled dolphin-safe may be assessed against any producer, importer, exporter, distributor, or seller who is subject to the jurisdiction of the United States. Violators may be prosecuted under the DPCIA provisions directly, under federal provisions prohibiting false statements and smuggling, or under federal labelling standards.

7.646. Finally, we note that, as argued by Mexico in Exhibit MEX-93, there is an important difference between the AIDCP and NOAA regime relating to the person that is required to certify the fulfilment of certain requisites. For instance, we note that whereas under the AIDCP it is the independent observer that is required to certify that non-dolphin-safe tuna is segregated in a different well following a set where a mortality or serious injury was observed, under the NOAA regime it is the captain who does this.

7.647. We thus note that there are differences between the AIDCP and NOAA regimes with respect to the tracking and verification systems. Indeed, the United States itself recognizes that there remain differences between the two regimes after the 2016 modifications to the Tuna Measure, but argues that these are explained by the inherent differences between international and national systems.[1134] In particular, the United States recognizes that one of the remaining differences relates to government oversight, and is the requirement under the AIDCP regime that tuna destined for export and using the AIDCP dolphin-safe label must be accompanied by a certification of its status issued by the competent national authority, while the NOAA regime does not include such a requirements for typical "other fisheries".[1135]

[1125] 50 CFR Section 216.93(d)(1)-(2); 50 CFR Section 216.93(e), (Exhibits USA-02, MEX-02).
[1126] 50 CFR Section 216.93(g)(3), (Exhibits USA-02, MEX-02).
[1127] United States' first written submission, para. 146.
[1128] 50 CFR Section 216.91(a)(5)(ii)(A), (Exhibits USA-02, MEX-02).
[1129] 50 CFR Section 216.91(a)(5)(ii)(B), (Exhibits USA-02, MEX-02).
[1130] 50 CFR Section 216.91(a)(5)(ii)(C), (Exhibits USA-02, MEX-02).
[1131] AIDCP, Resolution To Adopt The Modified System For Tracking And Verification Of Tuna (20 June 2001), (Exhibit MEX-59), Article 1(g) for the definition of the national authorities, Sections 2, 3, 5, and 6 for the obligations of the national authorities; Comparison of Track and Verification of "Dolphin-Safe" Tuna under the AIDCP and the Revised Measure, (Exhibit MEX-93), p.3.
[1132] AIDCP, Resolution To Adopt The Modified System For Tracking And Verification Of Tuna (20 June 2001), (Exhibit MEX-59), Article 7. We note that the example of such general report is provided in AIDCP, Report on the International Dolphin Conservation Program, Document MOP-34-05 (10 October 2016), (Exhibit MEX-103).
[1133] The Panels note that regarding infractions submitted to the IATTC international review panel, national authorities in Nicaragua and Venezuela, AIDCP contracting parties, imposed a fine in 2015. AIDCP, Report on the International Dolphin Conservation Program, Document MOP-34-05 (10 October 2016), (Exhibit MEX-103), p. 22.
[1134] United States' first written submission, para. 167.
[1135] United States' first written submission, para. 168.

7.648. Having described the differences between the two regimes, we move to the substance of our assessment of whether the tracking and verification requirements are calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean.

7.8.4.4 Panels' assessment

7.649. We begin by recalling that the mere existence of the above-mentioned differences does not, in and of itself, render the 2016 Tuna Measure inconsistent with Article 2.1 of the TBT Agreement. Rather, and as we have discussed in detail in Section 7.5.2 above, such differences must be assessed in the light of the difference in the risk profiles of the different fishing methods in different areas of the ocean in order to determine whether the former are calibrated to the latter.

7.650. In this connection, we note Mexico's argument that the regulatory differences that pertain to the accuracy of information provided to US consumers should be an integral part of the calibration test, and that where there are deficiencies in control and monitoring, a more stringent or more "sensitive" mechanism should be used in order to ensure that the information is accurate.[1136] For the reasons given in Section 7.5.2 above, where we concluded that the risk of inaccurate labelling does not form part of the "risk profiles" of different fisheries, and where we disagreed with Mexico's argument that the calibration analysis must be "constrained by" a distinct analysis of the relationship between the detrimental impact and the objectives of the Measure, we reject Mexico's argument in this regard. Rather, we have found that the pertinent inquiry is whether the 2016 Tuna Measure, including the tracking and certification requirements, is calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean. We nonetheless note that, as expressed above, the calibration analysis "takes account of the objectives of the Measure" insofar as those objectives inform the shape and content of the calibration test.

7.651. The Panels continue their analysis by noting that, similar to the certification provisions, the tracking and verification requirements draw distinctions on the basis of different fisheries, that is, the use of a particular fishing method in particular areas of the ocean, rather than different fishing methods *per se*. Thus, the tracking and verification requirements that apply in the ETP large purse seine fishery apply to *all* large purse seine vessels fishing in the ETP, regardless of whether those vessels actually set on dolphins. The question before us, therefore, is whether the distinctions with respect to tracking and verification made by the 2016 Tuna Measure between the ETP large purse seine fishery, on the one hand, and all other fisheries, on the other hand, are calibrated to the different risk profiles of the relevant fisheries.

7.652. Regarding the difference in the risk profiles that the Panels should take into account in their analysis, we recall our conclusion in Section 7.7.2.8 above that the ETP large purse seine fishery has a special risk profile that sets it apart from other fisheries around the world. In particular, we recall our finding that the ETP large purse seine fishery is the only fishery where large purse seine vessels can, technically and legally, set on dolphins in a routine and systematic manner. We also recall our findings regarding the levels of observable and unobservable harms posed to dolphins in the ETP large purse seine fishery both with and without setting on dolphins. In our view, these findings indicate that there is a substantial difference between the risk profiles of the ETP large purse seine fishery and the other fisheries discussed in Section 7.7.2 above.

7.653. Turning now to the issue of whether the particular differences in the tracking and verification requirements outlined above are calibrated to the differences between the risk profiles of the ETP large purse seine fishery, on the one hand, and other fisheries on the other hand, we recall again that the first compliance panel structured its analysis along the axes of *depth*, *accuracy*, and *degree of government oversight*. As we noted above, the Appellate Body did not find any fault with this conceptual approach adopted by the first compliance panel in assessing the 2013 Tuna Measure's tracking and verification requirements*, and thus,* we find it appropriate to follow the same approach in the present proceedings. We observe, however, that the analysis and findings made by the first compliance panel have to be approached with caution, as they did not "encompass consideration of the relative risks to dolphins from different fishing techniques in different areas of the oceans", and of whether the distinctions that the 2013 Tuna Measure draws in terms of the different conditions of access to the dolphin-safe label were explained in the light of

[1136] Mexico's first written submission, para. 291.

the relative risk profiles.[1137] Therefore, we will conduct our assessment being mindful that while some of the reasoning made by the first compliance panel is relevant, and may be useful, to our current task, the essence of the legal test that we are currently applying is different.

7.654. Regarding *depth*, that is, the point to which tuna can be traced back, we note that similar to the situation in the first compliance proceedings, under the 2016 Tuna Measure, tuna caught under the AIDCP regime can *potentially* be tracked back all the way to the particular set in which the tuna was caught and the particular well in which it was stored. This is so because on every fishing trip, ETP large purse seine vessels must maintain two forms, one to record tuna harvested in dolphin-safe sets, and one to record tuna harvested in non-dolphin-safe sets.[1138] The determination of the dolphin-safe status of tuna is made at the end of each set.[1139] Once the tuna harvested in a particular set is on-board, it is loaded into wells of the proper designation and recorded on the trip TTF.[1140] We nonetheless observe that during the course of these proceedings, the United States has submitted further explanations[1141] that indicate to us that at the end of a fishing trip, the completed dolphin-safe TTF would indicate how many sets occurred with no dolphin mortality or serious injury and all the wells in which the dolphin-safe tuna was stored, but tuna from a particular set would not necessarily be identifiable, as it may have been stored in the same well with other tuna from another dolphin-safe set. This is a consequence of the fact that the only requirement regarding well storage is that dolphin-safe and non-dolphin-safe tuna must be loaded into different wells that are correctly designated.[1142] Tuna from one set can be loaded into a well containing tuna from another set and tuna from one set can be loaded into multiple wells, provided always that it is loaded into wells of the correct designation (i.e. dolphin-safe or non-dolphin-safe).[1143] Thus, we find that under the AIDCP regime, tuna can be *potentially* tracked back all the way to the particular set in which the tuna was caught and the particular well in which it was stored, under certain conditions, or to a particular TTF if the well or wells in which the tuna subject to the TTF was stored contained tuna from several sets.

7.655. The situation under the NOAA regime, in contrast, seems to have changed since the first compliance proceedings, in particular because of the amendments introduced in the 2016 Tuna Measure regarding the new chain of custody record-keeping requirements. Under these new requirements, US processors and importers of tuna or tuna products from "other fisheries" (i.e. fisheries other than the ETP large purse seine fishery) are now required to collect and retain, for two years, information on each point in the chain of custody of the tuna or tuna product. The 2016 Tuna Measure requires that this information be sufficient for the NMFS to trace any non-dolphin-safe tuna loaded onto the harvesting vessel back to one or more storage wells or other storage locations for a particular fishing trip to prove that such non-dolphin-safe tuna was kept physically separate from dolphin-safe tuna through unloading.[1144] Thus, and different from the situation under the 2013 Tuna Measure that led the first compliance panel to conclude that it appeared that outside the ETP, tuna could be traced back to the *vessel* and trip on which it was caught[1145], under the 2016 Tuna Measure, tuna can be to traced back to one or more storage wells or other storage locations for a particular fishing trip.

7.656. Thus, on the basis of the evidence before us, it appears, under both the AIDCP and the NOAA regimes, it is possible to track tuna back to one or more wells in which it was stored. Thus,

[1137] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.169.

[1138] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 3(2), (Exhibit USA-90); Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 6.19.

[1139] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 4(1), (Exhibit USA-90).

[1140] See International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 4(3), (Exhibit USA-90); AIDCP TTF (Exhibits USA-91, MEX-106).

[1141] United States' first written submission, para. 152.

[1142] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 4(2), (Exhibit USA-90).

[1143] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 4(2), (Exhibit USA-90). In particular, we note that pursuant this Section "…the tuna is designated either dolphin safe or non-dolphin safe. The tuna is brailed and loaded into a prepared *well or wells which already contain either dolphin safe tuna or non-dolphin safe tuna*, as applicable, *or into a prepared but empty well or wells* which shall then be designated dolphin safe or non-dolphin safe, as applicable") (emphasis added).

[1144] United States' first written submission, para. 28.

[1145] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.356.

it seems to us that there is no longer any meaningful difference with respect to the depth of the requirements between the ADICP regime and the NOAA regime.

7.657. Turning now to *accuracy*, that is, the degree of confidence that a particular captain (or, where applicable, observer) statement properly describes the lot of tuna to which it is assigned, we note that the first compliance panel stated that while Mexico's evidence suggested that the tuna tracking forms required for tuna caught by large purse seine vessels in the ETP accompany particular catches of tuna throughout the fishing and production process, from the point of catch right through to the point of retail[1146], it was not clear how, under the NOAA regime, particular certificates are kept with particular lots of tuna up until the tuna reaches the canning plant.[1147] We note, however, that under the 2016 Tuna Measure, and in particular, under the new chain of custody record-keeping requirements for tuna products produced from "other fisheries", this situation has changed. Specifically, US processors and importers of tuna or tuna products are now required to collect and retain, for two years, information on each point in the chain of custody of the tuna or tuna product and this information must be provided to the NMFS upon request and must be sufficient for the NMFS to conduct a trace-back of any product marketed as dolphin-safe to verify that the tuna product in fact meets the dolphin-safe labelling requirements. Thus, these modifications seem to directly address the first compliance panel's concerns with the 2013 Tuna Measure, in particular, because they require US processors and importers of tuna or tuna products to collect and retain information on each point in the chain of custody of the tuna or tuna product.

7.658. Finally, turning to *government oversight*, that is, the extent to which a national, regional, or international authority is involved in the tracking and verification process, we note that the first compliance panel explained that according to Mexico's evidence, under the AIDCP regime, information concerning every stage of the tuna catch and canning process was made available to national and regional authorities, which must be sent copies of tuna tracking forms and are thus able to verify at any stage of the catch and canning process whether a particular batch of tuna is dolphin-safe. In contrast, the first compliance panel stated that under the NOAA regime, US authorities received information concerning the origin and history of tuna only from US tuna canneries themselves[1148], and that they were only able to verify that proper tracking mechanisms were implemented from the time the cannery received the tuna.[1149] Importantly, the first compliance panel stated that it appeared that the United States had "as it were, delegated responsibility for developing tracking and verification systems to the tuna industry itself, including canneries and importers, and [had] decided to involve itself only on a supervisory and *ad hoc* basis through the review of monthly reports and the conduct of audits and spot checks".[1150] However, the first compliance panel also found that "there is nothing inherently problematic, from the perspective of WTO law, about governments delegating functions to private entities, including industry", provided that delegation is done in a way that is consistent with the WTO Agreement (in this case, Article 2.1 of the TBT Agreement).[1151]

7.659. We note that a crucial point underscored by the first compliance panel was the inability of the US government under the NOAA regime to go "behind the documents" in order to verify the movements of the tuna prior to the arrival to the cannery. This led the first compliance panel to conclude that the US authorities were not able to ensure that they receive information that would enable them to track the movement and dolphin-safe status of tuna from the time of catch up to the point of delivery to a US cannery.[1152]

7.660. We thus note that the main concern identified by the first compliance panel with respect to government oversight was the inability of the US government under the NOAA regime to go "behind the documents" in order to verify the movements of the tuna prior to the arrival to the cannery.

7.661. In this connection, the 2016 Tuna Measure maintains the requirement that US tuna processors submit monthly reports to the US Tuna Tracking and Verification Program for all tuna received at their processing facilities. As under the 2013 Tuna Measure, these reports contain the

[1146] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.360.
[1147] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.361.
[1148] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.364.
[1149] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.364.
[1150] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.367.
[1151] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.368.
[1152] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.365.

same information as is contained in the Form 370, as well as certain additional information, such as unloading dates and the condition of the tuna products. However, under the modifications introduced under the 2016 Tuna Measure regarding record keeping, we note that the mentioned concern seems to have been addressed.

7.662. Under the modifications in 50 CFR 216.91(a)(5), US processors and importers of tuna or tuna products from such "other fisheries" are now required to collect and retain, for two years, information on each point in the chain of custody of the tuna or tuna product, including information on all storage facilities, trans-shippers, processors, and wholesalers/distributors. This information must be provided to the NMFS upon request and must be sufficient for the NMFS to conduct a trace-back of any product marketed as dolphin-safe to verify that the tuna product in fact meets the dolphin-safe labelling requirements. To us, this addresses the previous inability of the US government under the NOAA regime to go "behind the documents", as NMFS will have the ability to check the information of the movement of the tuna, even before it arrives at the cannery. Indeed, these modifications require US processors and importers to have information relating to the storage facilities, trans-shippers, processors, and wholesalers/distributors of tuna, and such information must be sufficient for the NMFS to trace any non-dolphin-safe tuna loaded onto the harvesting vessel back to one or more storage wells or other storage locations. Therefore, the US government may now go behind the documents and check the movements of the tuna along the various steps of the catch and processing of tuna.

7.663. Additionally, this modification seems to bridge the previous existing difference with the AIDCP regime, pursuant to which, according to the first compliance panel, information concerning every stage of the tuna catch and canning process was made available to national and regional authorities, which must be sent copies of tuna tracking forms and were thus able to verify at any stage of the catch and canning process whether a particular batch of tuna is dolphin-safe. Under the 2016 Tuna Measure, the US authorities will now have access to information concerning every step in the chain of custody, from the catching vessel to the processor.

7.664. Regarding the delegation of the responsibility for developing tracking and verification systems to the tuna industry itself, with a supervisory and *ad hoc* involvement of the US government, we note that the new modifications do not change this situation. Indeed, and as pointed out by Mexico, the process of collecting and keeping the information seems to rely heavily on importers and processors[1153], and while they are now required to keep information that is sufficient for the NMFS to trace any non-dolphin-safe tuna loaded onto the harvesting vessel back to one or more storage wells or other storage locations, the degree of government oversight of the catch and processing operations that take place outside the United States seems to be somewhat limited.

7.665. In this regard, we note that even the United States recognises this situation by stating that differences remain between the two systems.[1154] For instance, under the AIDCP regime, the Secretariat brokers requests for the data and documentation that would allow a party to obtain information from processors of another party sufficient to trace back tuna product through its chain of custody to the harvesting vessel and trip:

> 7. PERIODIC AUDITS AND SPOT CHECKS
>
> …
>
> The Parties, at any time, may request that the Secretariat verify the dolphin safe status of tuna by reference to the *AIDCP Dolphin Safe* Certificate number or TTF number. The Secretariat shall respond to such a request with confirmation of the status of that tuna on the basis of tracking information contained within the data and documentation transmitted to the Secretariat, provided that such report by the Secretariat shall be consistent with the Agreement Rules of Confidentiality adopted in October 2000 and as they may be amended.[1155]

[1153] Mexico's first written submission, paras. 289-290.
[1154] United States' first written submission, para. 167.
[1155] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), Section 7, (Exhibit USA-90).

7.666. Under the NOAA system, however, the NMFS would request this information from US processors or importers directly.

7.667. We also note that another difference is the requirement in the AIDCP regime that tuna "destined for export" and using the AIDCP "dolphin-safe" label must be accompanied by a certification of its status "issued by the competent national authority":

> Processed dolphin safe tuna destined for export shall be accompanied by a certification of its "dolphin safe" status issued by the competent national authority, including reference to the corresponding TTF number, provided that such documentation shall not reference details of fishing operations, except as relates to identification of types of fishing gear.[1156]

7.668. Under the NOAA regime, however, no such requirement is included for "other fisheries", unless they have been determined to be high risk, i.e. fisheries where a regular and significant dolphin mortality or serious injury or tuna-dolphin association is occurring. Under the modifications introduced in the 2016 Tuna Measure, we note that where NOAA has made such a determination, the NMFS will also require a government certificate validating (1) the catch documentation; (2) whether the tuna or tuna products meet the dolphin-safe labeling standards under 50 CFR Section 216.91; and (3) the chain of custody information reported to the US Government or maintained by the importer of record or the US processor, as applicable.[1157]

7.669. Accordingly, we agree with the United States[1158] that under the revised regulations, where NOAA has determined that a regular and significant mortality or serious injury or tuna-dolphin association is occurring in a particular fishery, the responsible government will need to validate the catch documentation provided on the Form 370 (or the equivalent documentation provided by US vessels to US canneries)[1159], along with validating that the product meets the dolphin-safe standard[1160], and the chain of custody information for the tuna and tuna products.[1161] We are nonetheless mindful that these enhanced government oversight requirements will only apply if a fishery has been determined by NOAA.

7.670. Thus, although the 2016 Tuna Measure has narrowed the differences between the AIDCP and the NOAA regimes in several aspects of the tracking and verification requirements, there are still differences between the two regimes regarding the extent of government oversight. Nevertheless, the existence of these differences does not necessarily render the 2016 Tuna Measure inconsistent with Article 2.1 of the TBT Agreement, as our task consists in assessing whether such differences are calibrated to the differences in the risk profiles of the different fisheries.

7.671. In assessing the legal significance of these differences, we recall our analysis in Section 7.8.3 that the relationship between any margin of error existing under the 2016 Tuna Measure and the degree of risk in a particular fishery may be an important consideration in our calibration assessment. We have explained that, in our view, it may be calibrated to use a more sensitive mechanism in areas where risks are high but a less sensitive mechanism in areas where the risks are low. In the context of the tracking and verification requirements, our view is that it is calibrated for the United States to apply less strict (i.e. less sensitive) requirements in respect of fisheries other than the ETP large purse seine fishery and to pose stricter (i.e. more sensitive) requirements inside the ETP large purse seine fishery. This is so because, as we have explained, the ETP large purse seine fishery has a special risk profile.[1162]

7.672. In our view, the difference in the risk profile of the ETP large purse seine fishery compared to other fisheries indicates that there is a greater likelihood that a vessel in the ETP large purse seine fishery will produce both dolphin-safe and non-dolphin-safe tuna on any fishing trip, and that the two groups of tuna will have to be segregated and tracked. Conversely, there would be a lower

[1156] International Dolphin Conservation Program, System for Tracking and Verifying Tuna, as amended (2015), sec. 6(d), (Exhibit USA-90).
[1157] 50 CFR Section 216.91(a)(5)(ii), (Exhibits USA-02, MEX-02).
[1158] United States' first written submission, para. 86.
[1159] 50 CFR Section 216.91(a)(5)(ii)(A), (Exhibits USA-02, MEX-02).
[1160] 50 CFR Section 216.91(a)(5)(ii)(B), (Exhibits USA-02, MEX-02).
[1161] 50 CFR Section 216.91(a)(5)(ii)(C), (Exhibits USA-02, MEX-02).
[1162] See Section 7.8.3 above.

likelihood that a set produces non-dolphin-safe tuna in other fisheries that would need to be segregated as a consequence of this. This justifies, in our view, the need for a stricter regime of tracking and verification in the ETP large purse seine fishery. As we have explained in the context of the certification requirements, the risk of inaccurate labelling is not constant or independent of the risks that dolphins face in different fisheries. Rather, the risk of inaccurate labelling logically is a function of the risk to dolphins in a particular fishery, in the sense that the higher the risk to dolphins, the higher the likelihood of having non-dolphin-safe tuna during a set or a trip, and consequently, the higher the risk of inaccurate labelling. We thus consider that it is reasonable for the United States to apply a more sensitive tracking and verification mechanism in respect of high-risk fisheries. Doing so is "commensurate with" the risks to dolphins arising from the use of different fishing methods in different areas of the ocean.

7.673. In the light of these considerations, we consider that any potential difference in the "margin of error" caused by the different requirements is commensurate with the difference in risk because there is a significant difference in the risk profile of the ETP large purse seine fishery compared to other fisheries that can produce dolphin-safe tuna.

7.674. Moreover, we note that under the determination provisions, additional requirements can be imposed on tuna produced in a fishery that has been designated as having a regular and significant tuna-dolphin association or mortality or serious injury. In our view, the determination provisions thus create flexibility that enables the 2016 Tuna Measure to treat similar situations similarly. The determination provisions work together with the tracking and verification requirements to ensure that the 2016 Tuna Measure is calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean.

7.675. Finally, we recall Mexico's contention that a number of the countries that are the largest suppliers of tuna and tuna products, such as Thailand, the Philippines and Chinese Taipei, are significantly deficient in the control and monitoring of fishing activities, and have been identified as extremely vulnerable to IUU fishing[1163], and that the US Department of Commerce lacks jurisdiction to audit foreign fishing vessels, carrier vessels, and foreign processors. However, we note that, we have explained above in the context of the certification requirements, the NOAA regime provides that breaches of the tracking and verification requirements may lead to the imposition of sanctions. In particular, sanctions for offering for sale or export tuna products falsely labelled dolphin-safe may be assessed against any producer, importer, exporter, distributor, or seller who is subject to the jurisdiction of the United States. Thus, even in the absence of jurisdiction by the US Department of Commerce to audit foreign fishing vessels, carrier vessels, and foreign processors or vulnerability to IUU fishing in some countries, the United States, through the 2016 Tuna Measure, has the necessary tools to induce compliance of US processors and importers.

7.676. For these reasons, we find that although there remain differences between the NOAA and AIDCP regimes with respect to tracking and verification, the Panels are of the view that such differences have been considerably narrowed in the 2016 Tuna Measure and the Panels find that the remaining differences are calibrated to the differences in the risk profile of the ETP large purse seine fishery compared to other fisheries.

7.8.5 The determination provisions

7.677. The Panels now turn to consider the determination provisions. As we have already explained, the determination provisions allow for additional certification and tracking and verification requirements to be imposed in respect of tuna caught outside the ETP large purse seine fishery under certain circumstances. In particular, under the determination provisions, the Assistant Administrator of NOAA may determine that a fishery other than the ETP large purse seine fishery has either a regular and significant association between dolphins and tuna (similar to the association between dolphins and tuna in the ETP) or a regular and significant mortality or serious injury of dolphins. If such a determination is made, tuna from the determined fishery sought to be labelled as being dolphin-safe (a) must be accompanied by an observer certification, and (b) is subject to additional tracking and verification requirements.

[1163] Mexico's first written submission, para. 300.

7.678. In the first compliance proceedings, both the panel and the Appellate Body identified gaps in the coverage of the determination provisions. The Appellate Body, after finding that the determination provisions help "to ensure that similar situations are treated similarly under the amended tuna measure"[1164], made the following statement:

> [W]e have been able to examine the even-handedness of the labelling conditions applied under the amended tuna measure in certain scenarios that would present comparably high risks to dolphins inside and outside the ETP large purse-seine fishery. We found, in this respect, that aspects of the design of the amended tuna measure reflect a lack of even-handedness. In particular, we considered that the determination provisions do not provide for the substantive conditions of access to the dolphin-safe label to be reinforced by observer certification in all circumstances of comparably high risks, and that this may also entail different tracking and verification requirements than those that apply inside the ETP large purse-seine fishery.[1165]

7.679. The Appellate Body's conclusion was based on the finding of the first compliance panel that, under the determination provisions contained in the 2013 Tuna Measure, "a determination of regular and significant mortality cannot be made in respect of purse seine fisheries outside the ETP, and a determination of regular and significant tuna-dolphin association cannot be made in respect of non-purse seine fisheries".[1166] According to the compliance panel, this "gap in the certification procedures" meant that, "in some cases, fisheries other than the ETP large purse seine fishery may be treated differently, and less stringently, under the amended tuna measure even where the conditions in that fishery mirror those in the ETP large purse seine fishery, either in terms of the level of dolphin mortality or the degree of tuna-dolphin association".[1167]

7.680. In the present proceedings, the United States claims that the 2016 Tuna Measure eliminates the gaps in the coverage of the determination provisions, identified in the first compliance proceedings. The United States notes that the two determination provisions analysed in the first compliance proceedings, which had previously been codified at 50 CFR § 216.91(a)(2)(i) and (a)(4)(iii), have in the 2016 Tuna Measure been combined into one provision, now codified at 50 CFR Section 216.91(a)(3)(v). According to the United States, this consolidated and revised determination provision provides that, as a condition for labelling tuna product dolphin-safe, NOAA may require an observer certification (in addition to the captain certification) where the Assistant Administrator has determined that a fishery has a regular and significant tuna-dolphin association (similar to that in the ETP) or has regular and significant dolphin mortality or serious injury. Thus, this authority applies equally to all fisheries – including purse seine fisheries and non-purse seine fisheries such as longline, pole and line, gillnet, and trawl fisheries – that are potentially eligible to produce dolphin-safe tuna product for the US market.[1168]

7.681. Additionally, the United States argues that the 2016 Tuna Measure revised the determination provisions such that, if the Assistant Administrator makes a determination of "regular and significant" association or "regular and significant" mortality or serious injury, NMFS will require, as a condition of tuna product being marketed as dolphin-safe, a government certificate validating: (1) the catch documentation recorded on the NOAA Form 370 or US cannery report accompanying the tuna or tuna product (*e.g.*, the fishery in which the tuna was caught, the relevant trip dates, the type of gear with which the tuna was caught, and the harvesting vessel); (2) that the tuna or tuna products meet the dolphin-safe labelling standards of 50 CFR Section 216.91; and (3) the chain of custody information that must be reported to the US Government or maintained by the importer of record or the US processor, as applicable (a new requirement described below).[1169]

7.682. Mexico accepts that the revised determination provision "eliminates the differences created by the statute with respect to purse seine fishing and other fishing methods".[1170] However, Mexico

[1164] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.256.
[1165] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.266.
[1166] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.263.
[1167] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.263.
[1168] United States' first written submission, para. 22.
[1169] United States' first written submission, para. 25.
[1170] Mexico's first written submission, para. 139; response to Panels' question No. 82, para. 118. Mexico notes that no change has been made to the underlying statute. Rather, the new requirements have been enacted by regulation. Mexico's first written submission, para. 138.

questions the practicability of the additional tracking and verification requirements that apply to a fishery that has been designated under the determination provisions.[1171] Moreover, Mexico argues that the US Department of Commerce has never undertaken to make any determination – or even an evaluation – regarding whether any other fishery outside the ETP has regular and significant dolphin mortality or serious injury or regular and significant association between dolphins and tuna. According to Mexico, there are no procedures for making such a determination, nor has the US Department of Commerce ever sought public comments on that subject in the context of the Tuna Measure. In Mexico's view, the failure to evaluate whether or not there is regular and significant harm to dolphins occurring in fisheries outside the ETP, or the decision not to do so under the provisions of the 2016 Tuna Measure is itself an indication of arbitrariness.[1172]

7.683. In response to Mexico's argument, the United States first argues that there is no evidence that any fishery has a regular and significant tuna-dolphin association similar to that in the ETP.[1173] The United States next argues that there *is* a procedure for assessing whether regular and significant mortality or serious injury exists in a fishery outside the ETP. The United States recognizes that the text of the DPCIA is not explicit as to the metric by which regular and significant dolphin mortality or serious injury should be assessed, or as to the benchmark against which levels of dolphin mortality should be measured, to determine whether they are regular and significant. According to the United States, it was therefore necessary to consider what metric and benchmark were most in keeping with the objectives of the US dolphin-safe labelling measure, in light of the available evidence.[1174] The United States explains that it adopted a per set metric[1175], to be assessed against the benchmark of "a 20-year average of direct dolphin mortalities caused by dolphin sets in the ETP, beginning in 1997 and ending at the present day".[1176] The United States submits that, on the basis of this procedure, it considered the available fishery-specific evidence concerning per set mortalities in fisheries other than the ETP large purse seine fishery, but found no evidence suggesting that, on a per set basis, any other fishery causes dolphin mortalities close to the level of mortalities caused by dolphin sets in the ETP, as an average since 1997 (which the United States calculates as 0.1265 mortalities per set).[1177]

7.684. The United States further submits that it was not possible to find per set data for all fisheries, and, therefore, to make the most appropriate comparison between dolphin mortalities caused by dolphin sets in the ETP and those caused in other fisheries. According to the United States, for fisheries where bycatch is known to be low or non-existent, this did not raise a concern, since all the available evidence suggests that dolphin mortality would not rise to the level of being regular and significant if per set data were available.[1178]

7.685. However, according to the United States, evidence from certain gillnet fisheries in the Indian Ocean area suggested that levels of mortality are occurring such that, if per set data *were* available, the per set mortality rate likely would meet or exceed the "regular and significant" standard. The United States submits that because per set data was not available for these fisheries, the United States considered whether any alternative metrics might act as a proxy for per set data and enable an evaluation of those fisheries. Ultimately, NOAA determined that data were available to support evaluation under a dolphin bycatch rate metric, i.e. the number of dolphins killed per ton of target catch (tuna) landed. According to the United States, under this metric, the Indian Ocean gillnet fisheries in question exhibited bycatch rates *significantly* higher than that caused by dolphin sets in the ETP during the relevant period. On this basis, the United States concluded that the mortality per ton of tuna exceeded the mortality per ton of tuna in the ETP dolphin sets and that it was highly likely that, were per set data available, it would exceed the ETP benchmark, thus justifying a regular and significant mortality determination.[1179]

[1171] Mexico's first written submission, para. 140.
[1172] Mexico's first written submission, paras. 141-142.
[1173] United States' second written submission, para. 158.
[1174] United States' second written submission, para. 160.
[1175] United States' second written submission, paras. 161-163.
[1176] United States' second written submission, paras. 166; Dolphin Mortalities Per Set Due to ETP Dolphin Sets and in Other Fisheries (Exhibit USA-111).
[1177] United States' second written submission, paras. 167 (citing Dolphin Mortalities Per Set Due to ETP Dolphin Sets and in Other Fisheries (Exhibit USA-111) and Tables Summarizing Fishery-by-Fishery Evidence on the Record).
[1178] United States' second written submission, para. 168.
[1179] United States' second written submission, para. 172.

7.686. The United States explains that, subsequent to this conclusion, it sent letters to all the countries whose fleets would be affected by a determination regarding these fisheries, asking for additional information as to the level of dolphin mortality occurring in their gillnet fisheries. Each country had sixty days to respond to provide current data with regard to its gillnet fisheries. According to the United States, none of these countries replied with any more recent dolphin mortality studies. Therefore, on September 28, 2016, NOAA issued a determination, on the basis of the best information available, that a regular and significant mortality of dolphins was occurring in these fisheries. The determination provided that any tuna product produced from these fisheries to be marketed as dolphin-safe in the United States would have to be accompanied by a certification by an observer from a qualified and authorized observer program and a certification attesting to the catch documentation, the substance of the dolphin-safe labelling standards, and the chain of custody information.[1180]

7.687. In the United States' view, the above procedures establish that the application of the determination provisions, like their design, is consistent with Article 2.1 of the TBT Agreement.[1181]

7.688. Mexico disagrees with the United States that the determination provisions are applied in a manner that is consistent with Article 2.1 of the TBT Agreement. With respect to the determination made in respect of certain Indian Ocean gillnet fisheries, Mexico contends that the United States chose these particular fisheries because it thinks they export no or little tuna to the United States.[1182]

7.689. Moreover, Mexico takes issue with the United States' explanation as to the process underlying the application of the determination provisions to the fisheries in the Indian Ocean area. Mexico argues that the explanation has not been published in any regulation, was not the subject of public comments, and is not supported by any scientific analysis.[1183] In Mexico's view, the United States is artificially inflating the benchmark by using an average of data from the ETP over the last two decades. According to Mexico, under the United States' methodology, a fishery that has a higher bycatch rate in 2015 than the ETP fishery has in 2015 would not be designated as having regular and significant mortality and serious injury of dolphins. In Mexico's opinion, the United States has not explained how such an approach could be considered consistent with the objective of the Tuna Measure.[1184]

7.690. Finally, Mexico argues that the United States' methodology for deciding when to consider evidence of dolphin mortalities in a fishery deserving of investigation appears to be based on arbitrary judgments. Specifically, Mexico argues that in respect of fisheries and country fleets about which Mexico submitted evidence (other than the Indian Ocean gillnet fisheries subject to the determination), the United States rejects even the possibility that there could be regular and significant mortalities. Mexico submits that the United States did not even send letters to other countries asking for data on dolphin populations and mortalities in their tuna fisheries.[1185] In Mexico's view, for the United States to claim that there are no other fisheries worthy of examination under the determination provisions is unjustifiable and contrary to the objectives of the Tuna Measure. Other fisheries should have been evaluated and made the subject of designations.[1186]

7.691. The Panels begin by noting that the determination provisions have been considered above in the context of analysing whether the certification requirements and the tracking and verification requirements are calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean. In those parts of these Reports, we have found that the revised determination provisions fill the gaps in coverage identified in the first compliance proceedings, and help to ensure that similar situations are now treated similarly under the 2016 Tuna Measure. In this way, the revised determination provisions create flexibility that helps to ensure that the 2016 Tuna Measure is calibrated to the different risks to dolphins arising from the use of different fishing methods in different areas of the ocean. We reaffirm our conclusion in this context, and reiterate our finding that the 2016 Tuna Measure has addressed and fixed the

[1180] United States' second written submission, paras. 173-174.
[1181] United States' second written submission, paras. 157 and 175.
[1182] Mexico's second written submission, para. 104.
[1183] Mexico's second written submission, para. 105.
[1184] Mexico's second written submission, para. 107.
[1185] Mexico's second written submission, para. 108.
[1186] Mexico's second written submission, para. 112.

problem identified in the first compliance proceedings (that is, the gap in coverage that existed because, under the 2013 Tuna Measure, the determination provisions did not provide for the substantive conditions of access to the dolphin-safe label to be reinforced by observer certification in all circumstances of comparably high risks[1187]).

7.692. Mexico now raises additional concerns regarding the application of the determination provisions. In particular, Mexico initially argued that no methodology exists under which the United States may designate fisheries under the determination provisions. After the United States explained its methodology in its second written submission, Mexico argues the application of the determination provisions more generally, is "arbitrary".[1188]

7.693. As we understand it, Mexico's arguments concerning the application of the determination provisions can be divided into two categories. First, Mexico argues that the methodology by which the United States applies the determination provisions is arbitrary. Second, Mexico argues that the United States has no methodology for deciding *when* to investigate other fisheries, and that it refuses to investigate other fisheries despite evidence that those fisheries are causing substantial harms to dolphins.[1189]

7.694. With respect to the methodology by which the United States applies the determination provisions, Mexico's arguments relate to two aspects of the methodology: its primary reliance on per set comparisons, and its use of a benchmark calculated on the basis of the average of per set data collected in the ETP between 1997 and 2017. With respect to the use of per set comparisons, we have explained above, in the context of reviewing the evidence on the record concerning the different risk profiles of different fisheries, that a per set comparison appears to us to be a scientifically legitimate way to assess the risks to dolphins across different fisheries.[1190] Per set comparisons enable a relative assessment of the risks posed to dolphins by a unit of fishing effort. In this sense, they allow for a fair and reasonable comparison of the different risks to dolphins associated with the use of different fishing methods in different areas of the ocean.

7.695. With respect to the benchmark used in the application of the determination provisions, we note the United States' argument that its decision to establish a benchmark based on an average of per set data from the ETP large purse seine fishery between 1997 and 2017 is based on a suggestion of the Appellate Body in the first compliance proceedings.[1191] The relevant part of the Appellate Report reads as follows:

> Although the amended tuna measure does not state what criteria inform a determination of regular and significant mortality or serious injury, we would understand the reference to "regular" and "significant" mortality or serious injury as indicating that there exist risks of dolphin death or serious injury that are equivalent to or greater than those existing in the ETP large purse-seine fishery.[1192]

7.696. In the United States' view, this passage indicates that the Appellate Body suggested that, to ensure even-handed treatment of different fisheries, the benchmark applied to fisheries other than the ETP large purse seine fishery should itself refer to the ETP large purse seine fishery.[1193]

7.697. We do not read the Appellate Body's report in the same way as the United States. In particular, we do not understand the quoted passage to be a *suggestion* as to what "regular and significant" *should* mean, but rather as a statement of what the Appellate Body understood it to mean already. Importantly, however, after articulating its understanding of this benchmark, the Appellate Body then proceeded to find that a determination against this benchmark "also appears to enhance the correlation, in respect of "all other fisheries", between the risks of harm to dolphins and the manner in which the measure seeks to address those risks".[1194] To us, this indicates that the Appellate Body considered it legitimate for the United States to establish the ETP large purse seine fishery as a benchmark against which "regular and significant" tuna-dolphin association and

[1187] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.266.
[1188] Mexico's response to Panels' question No. 82, para. 118.
[1189] Mexico's response to Panels' question No. 82, para. 120.
[1190] See Section 7.7.1.2.1.5 above.
[1191] United States' response to Panels' question No. 31, para. 161.
[1192] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.257.
[1193] United States' response to Panels' question No. 31, para. 161.
[1194] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.257.

mortality or serious injury would be defined. We also do not see any problem with the United States taking the ETP as the benchmark against which to assess the levels of tuna-dolphin association and mortality and serious injury to dolphins, provided that the benchmark is applied in an even-handed manner to all fisheries.

7.698. We note that even once it is accepted that the ETP large purse seine fishery can legitimately be used as a benchmark for the definition of "regular and significant" tuna-dolphin association and mortality or serious injury, a further question arises concerning the precise data set from the ETP used to specify the benchmark. As we have explained, the United States uses an "average of per set data" collected in the ETP between 1997 and 2007 (which the United States calculates as 0.1265 mortalities per set).[1195] According to Mexico, however, this use of averaging artificially inflates the benchmark. In other words, according to Mexico, under the United States' methodology, a fishery that has a higher bycatch rate in 2015 than the ETP fishery has in 2015 would not be designated as having regular and significant mortality and serious injury of dolphins.[1196]

7.699. We do not agree with Mexico's argument on the use of averaging. In our view, there is nothing arbitrary or lacking in even-handedness in the United States' decision to use an average in this connection. The reason is that, in our view, it would be misleading to compare the risk profile of the ETP following the adoption of heightened certification and tracking and verification requirements with the risk profile of other fisheries that are not subject to similar requirements. Mexico itself recognizes that the additional requirements imposed by the AIDCP have significantly reduced the extent of mortality and serious injury in the ETP large purse seine fishery. In our view, to compare those lower mortalities and serious injuries, which are in part a *result* of the imposition of more stringent certification and tracking and verification conditions, with the risk profiles of fisheries not subject to similar conditions would not represent an apples-to-apples comparison. A true apples-to-apples comparison would be against the ETP large purse seine fishery *prior* to the adoption of the AIDCP. However, as the United States has explained, it adopted an average that is much more conservative because "it takes into account any declines in direct mortalities due to dolphin sets in the ETP that have occurred over the past 20 years". As a result, under the 2016 Tuna Measure, a fishery can be designated under the determination provisions and thus be subjected to heightened certification and tracking and verification requirements even if its risk profile is lower than the risk profile in the ETP *prior to* the imposition of heightened certification and tracking and verification requirements. This appears to us to *heighten* the level of protection of dolphins offered by the 2016 Tuna Measure. In our view, far from being arbitrary or lacking in even-handedness, the use of this conservative benchmark seems to be perfectly consistent with the objectives of the 2016 Tuna Measure.

7.700. With respect to the methodology for deciding *when* to investigate other fisheries, Mexico alleges that the United States "refuses" to investigate any other fishery.[1197] We do not see any evidence to support this allegation. To the contrary, in our view, the United States' submissions throughout these proceedings show that the United States has considered the available evidence of risks to dolphins arising from the use of different fishing methods in different areas of the ocean, and has concluded that the vast majority of the world's fisheries have a lower risk profile than the ETP large purse seine fishery. We have reviewed the evidence on the record and come to a similar conclusion. The fact that the United States has not designated other fisheries, and the fact that it does not agree with Mexico on what the evidence shows, does not mean that the United States has "refused" to consider the evidence. At any rate, Mexico has not explained to us why the United States not having such a methodology for deciding *when* to investigate other fisheries would necessarily be inconsistent with the obligation laid down in Article 2.1 of the TBT Agreement, or would deprive the 2016 Tuna Measure of calibration.

7.701. With respect to the United States' decision to designate certain Indian Ocean gillnet fisheries but no other fisheries under the determination provisions, again we do not see that this is in any way inconsistent with Article 2.1 of the TBT Agreement, specifically because it would deprive the 2016 Tuna Measure of calibration. Rather, our review of the evidence on the record concluded that other fisheries have a relatively lower risk profile than the ETP large purse seine fishery. We have found in particular that setting on dolphins, which is practiced routinely and systematically only in the ETP large purse seine fishery, causes significantly more mortalities and

[1195] Dolphin Mortalities Per Set Due to ETP Dolphin Sets and in Other Fisheries (Exhibit USA-111).
[1196] Mexico's second written submission, para. 107.
[1197] United States' response to Panels' question No. 120.

serious injuries than other fishing methods in other areas of the ocean, and that no other fishery for which we have evidence has a per set mortality level even approaching that of the ETP. We have also found that setting on dolphins causes unobservable harms as a result of the chase and encirclement process that are not caused by any of the other fishing methods. Moreover, we see no problem with the United States' decision to use a dolphin bycatch metric in the case of the Indian gillnet fisheries that were eventually designated because the United States has explained that this was due to the absence of per set data for these fisheries.[1198] In our view, the use of an alternative, even if imperfect[1199], metric where per set data is unavailable seems to us to be consistent with the objectives of the 2016 Tuna Measure, since it furthers the protection of dolphins in fisheries that, on the basis of available evidence, have a regular and significant mortality or serious injury rate similar to that in the ETP large purse seine fishery.

7.702. For the reasons given above, we reject Mexico's argument that the determination provisions are applied in an arbitrary or uneven-handed manner. We consider that the 2016 Tuna Measure fills the gaps in the coverage of the determination provisions identified in the first compliance proceedings, and that such provisions have been applied in a reasonable way that helps to ensure that the 2016 Tuna Measure is calibrated to the different risks to dolphins arising from the use of different fishing methods in different areas of the ocean.

7.8.6 Overall assessment of the consistency of the 2016 Tuna Measure with Article 2.1 of the TBT Agreement

7.703. In the preceding sections, we have assessed whether the various elements of the 2016 Tuna Measure are calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean, and found that they are. Specifically, we have found that the eligibility criteria and the certification and tracking and verification requirements are, considered individually, calibrated. We have also found that the determination provisions create flexibility that contributes to the calibration of the certification and tracking and verification requirements, and therefore of the 2016 Tuna Measure as a whole.

7.704. As we have already indicated, following the guidance provided by the Appellate Body in the first compliance proceedings in this dispute, we are of the view that an assessment of whether the 2016 Tuna Measure is calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean cannot be based on a segmented analysis of the individual elements of the Measure. We have to complement such individual analyses by an overall assessment synthesizing our findings about the various elements of the Measure, and explaining the operation of the Measure, taking into account the important interlinkages among such elements. Below, we provide that overall assessment.

7.705. The 2016 Tuna Measure is a labelling measure. As noted above, it pursues two objectives: first, to ensure that consumers are not misled or deceived about whether tuna products contain tuna that was caught in a manner that adversely affects dolphins; and, second, to contribute to the protection of dolphins, by ensuring that the US market is not used to encourage fishing fleets to catch tuna in a manner that adversely affects dolphins. As also noted above, we see these two objectives as being mutually complementary and reinforcing, rather than distinct. Thus, the objective of the Measure is to protect dolphins from harms by providing the US consumers with accurate information as to whether any dolphins were killed or seriously injured in the harvesting of the tuna used to make the tuna products that they purchase.[1200]

7.706. To this end, the eligibility criteria, which contain the substantive conditions for access to the dolphin-safe label, make a distinction between tuna caught by certain fishing methods that are ineligible to receive a dolphin-safe label, and tuna caught by fishing methods that are provisionally eligible to receive a dolphin-safe label. Two fishing methods are disqualified: setting on dolphins, and driftnet in the high seas. All other methods are conditionally qualified for the label: tuna products made of tuna caught by using any of these other methods are qualified to use a dolphin-safe label provided it is certified that no dolphin was killed or seriously injured in the set or gear deployment during which the tuna was caught, and that no net or other gear was intentionally deployed on or used to encircle dolphins during the fishing trip in which the tuna was caught.

[1198] United States' second written submission, paras. 169-172.
[1199] United States' second written submission, para. 170.
[1200] In this regard, and as discussed in Section 7.7.1.2.1.3 above, we recall that the Measure aims to protect individual dolphins from harms, and is not directly concerned with the sustainability of dolphin stocks.

Above, we have found that the eligibility criteria are calibrated because of the significant difference in risk between setting on dolphins, on the one hand[1201], and the fishing methods that are conditionally qualified for the label, on the other hand.

7.707. Without the certification, and tracking and verification requirements, as well as the determination provisions, however, the distinction made through the eligibility criteria would not have achieved the Measure's objective of dolphin protection. In our view, the interlinkage among these four elements of the Measure is so crucial that without one of them the 2016 Tuna Measure, as we know it, could not function. We see the certification, and the tracking and verification requirements, as well as the determination provisions, as tools that enforce the eligibility criteria with a view to achieving the objective of protecting dolphins from harmful fishing methods.

7.708. In order to pursue its aim of protecting dolphins from harmful fishing methods, the Measure goes beyond identifying, and disqualifying from accessing a dolphin-safe label the methods that are particularly harmful to dolphins and conditionally qualifying other methods. It also establishes a mechanism to make sure that this distinction would be respected and properly enforced. This enforcement mechanism was designed in the form of certification and tracking and verification requirements, as well as the determination provisions.

7.709. The certification provisions aim to ensure that the impact on dolphins of a fishing method used in harvesting tuna is reported accurately, to help enforce the eligibility criteria and achieve the objectives of the 2016 Tuna Measure. The certification provisions follow the same approach as the eligibility criteria and provide for two sets of certification procedures. In the ETP large purse seine fishery, which is the only fishery where vessels can, both technically and legally, set on dolphins in a routine and systematic manner, certification has to be provided by both the vessel captain and an independent observer as to whether dolphin sets were used or any dolphins were otherwise killed or seriously injured in a set or gear deployment. In other fisheries, where the risks to dolphins are lower, the certification provisions require certification from captains who are required to have completed certain training programme.

7.710. We thus understand that the certification requirements enforce the eligibility criteria by providing two sets of certification requirements that properly take account of the differences in the levels of harms caused to dolphins by different fishing methods in different areas of the ocean. The certification requirements create a more sensitive detection mechanism in respect of the ETP large purse seine fishery, which has a relatively high risk profile, and a less sensitive mechanism in other fisheries where the risks to dolphins are relatively lower. However, under the determination provisions, a fishery other than the ETP large purse seine fishery may be subject to more stringent certification requirements, and in particular may be required to have an observer certification, where that fishery has a regular and significant tuna-dolphin association or mortality or serious injury of dolphins. The determination provisions help to ensure that the 2016 Tuna Measure treats similar situations similarly. Working together, the certification requirements and the determination provisions help to establish a mechanism for enforcing the eligibility criteria that are properly calibrated to the different risk profiles in different fisheries.

7.711. Without certification requirements, the substantive distinction made by the eligibility criteria would have been difficult to enforce and monitor, and US consumers would not be in a position to know whether tuna used in producing tuna products was obtained by fishing methods that harmed dolphins. As a result, the objectives of the Tuna Measure would not have been achieved. The certification requirements (together with the determination provisions) thus work together with and reinforce the eligibility criteria. And like the eligibility criteria, they are calibrated to the risks to dolphins in different fisheries, since they apply more stringent criteria inside the ETP large purse seine fishery, and less stringent requirements in other fisheries that are less dangerous to dolphins.

7.712. We note that the eligibility criteria and the certification requirements, taken together, would not by themselves suffice to achieve the 2016 Tuna Measure's objectives either. This is because there would be a need to control how the tuna caught by different fishing methods is stored on board the fishing vessels, unloaded and handed over to the canneries. This function is fulfilled by the tracking and verification requirements. As noted above, the tracking and verification requirements provide for two sets of procedures, one for tuna caught in the ETP large purse seine

[1201] As noted above, the parties did not submit arguments concerning high seas driftnet fishing.

fishery, and another for tuna caught in all other fisheries. As we have found above, although the 2016 Tuna Measure has narrowed the differences between the AIDCP and the NOAA regimes with regard to several aspects of the tracking and verification requirements, there are still differences between the two regimes with regard to other aspects, such as the degree of government oversight in the process, and the documentation required in the case of exportation of dolphin-safe tuna. We have found, however, that, given the difference in the risk profile of the ETP large purse seine fishery compared to other fisheries, the tracking and verification requirements are calibrated despite the remaining differences between the NOAA and the AIDCP regimes. In our view, the tracking and verification requirements complement the eligibility criteria and the certification requirements by providing for two different regimes taking into account the differences in the risk profiles of the various fisheries.

7.713. Additionally, as is the case in the context of the certification requirements, the determination provisions allow for the imposition of more stringent tracking and verification requirements for tuna caught in a fishery that has been designated under the determination provisions as having a regular and significant tuna-dolphin association or dolphin mortality or serious injury. In this way, they provide flexibility and ensure that under the 2016 Tuna Measure similar situations are treated similarly. In making this distinction between fisheries based on their relative risk profiles, the design and architecture of the tracking and verification requirements also complements, and is consistent with, the design and architecture of the eligibility and certification requirements which the tracking and verification requirements reinforce and with which they work together to achieve the objectives of the 2016 Tuna Measure.

7.714. Finally, we recall that, as explained above, the revised determination provisions introduce the necessary flexibility into the 2016 Tuna Measure to reinforce the calibration of the certification and tracking and verification requirements. More specifically, the determination provisions allow the NOAA to heighten the level of certification and tracking and verification requirements for fisheries where the Assistant Administrator of NOAA has determined that a fishery has a regular and significant tuna-dolphin association (similar to that in the ETP), or has regular and significant dolphin mortality or serious injury. We also recall that these determination provisions have been used in respect of certain gillnet fisheries in the Indian Ocean region.

7.715. In our view, without the determination provisions, the 2016 Tuna Measure would have been static, as there would be no mechanism to review the status of different fisheries in terms of harms caused to dolphins, and to make the necessary modifications to the relevant requirements in light of new developments in the risk profiles of such fisheries. Therefore, the determination provisions complement the structure of the 2016 Tuna Measure composed of the eligibility criteria, certification and tracking and verification requirements, and gives the Measure the flexibility to adapt itself to changing circumstances in the risk profiles of fisheries. Moreover, we recall that the determination provisions operate on the basis of per set comparisons against an average of per set data collected in the ETP between 1997 and 2017. In our view, this further enhances the complementarity of the determination provisions with the overall architecture and structure of the 2016 Tuna Measure. Working together with the eligibility, tracking and verification requirements, the determination provisions allow for the imposition of more stringent conditions in fisheries that cause dolphin mortality or serious injury at levels similar to those caused in the ETP large purse seine fishery. This ensures that similar situations are treated similarly, and that the 2016 Tuna Measure establishes a regime that is calibrated to, tailored to, and commensurate with the risks to dolphins arising from the use of different fishing methods in different areas of the ocean.

7.716. In assessing whether the 2016 Tuna Measure is calibrated to the risks to dolphins arising from the use of different fishing methods in different parts of the ocean, we have also taken into account the risk of inaccurate information about the dolphin-safe status of tuna products being passed to US consumers. In this regard, we noted that there may be differences in the margins of error in various fisheries with regard to the accuracy of the information passed to the consumers. However, we have also noted that the risk of inaccurate information being passed to consumers through the label will depend not only on the margin of error of a given fishery, but also on the extent of events that require recording whether a dolphin mortality or serious injury was observed in a given fishery. Therefore, our analysis of calibration has taken account of the objectives of the 2016 Tuna Measure, and we consider that the eligibility criteria and the certification and tracking verification requirements, together with the determination provisions, work together in a calibrated manner to further the objectives of the 2016 Tuna Measure.

7.717. On the basis of these considerations, the Panels come to the general conclusion that the 2016 Tuna Measure, as a whole, is calibrated to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean. Therefore, the Panels find that the distinctions made by that Measure between setting on dolphins and the other fishing methods (except, of course, high seas driftnet which is also disqualified from the dolphin-safe label) stem exclusively from legitimate regulatory distinctions. Consequently, the Panels conclude that the 2016 Tuna Measure accords to Mexican tuna products treatment no less favourable than that accorded to like products from the United States and other countries, and therefore is consistent with Article 2.1 of the TBT Agreement.

7.9 Whether the 2016 Tuna Measure is consistent with Articles I:1 and III:4, and complies with the requirements of Article XX, of the GATT 1994

7.718. Having found that the 2016 Tuna Measure is consistent with Article 2.1 of the TBT Agreement, the Panels proceed to examine whether that Measure is consistent with Articles I:1 and III:4 and whether it complies with the requirements of the chapeau of Article XX of the GATT 1994. We will first review the findings made in the previous proceedings in this dispute regarding Mexico's claims under Articles I:1 and III:4, as well as the United States' defence under Article XX, of the GATT 1994, and then examine the claims and defence put forward in the present proceedings.

7.9.1 Findings made in the previous proceedings

7.719. The Panels recall that the panel in the original proceedings in this dispute applied judicial economy with respect to Mexico's claims under Articles I:1 and III:4 of the GATT 1994[1202], which the Appellate Body found to be inconsistent with the requirement to conduct an objective examination, set forth in Article 11 of the DSU.[1203] In making this finding, the Appellate Body also opined that the nature of the obligations laid down in Article 2.1 of the TBT Agreement, on the one hand, and in Articles I:1 and III:4 of the GATT 1994, on the other hand, are not the same.[1204] Since judicial economy was applied to Mexico's claims under Articles I:1 and III:4 of the GATT 1994, the compatibility of the original Tuna Measure with the requirements of Article XX of the GATT 1994 was not addressed in the original proceedings.

7.720. In the first compliance proceedings, the panel noted that Article I:1 of the GATT 1994 contained a different legal standard than that contained in Article 2.1 of the TBT Agreement, the key difference being that "whereas Article I:1 requires *only* an analysis of whether the conditions attached to an advantage detrimentally impact the competitive opportunities of imported products in the relevant market, Article 2.1 of the TBT Agreement requires an *additional* consideration of whether any detrimental impact nevertheless stems exclusively from a legitimate regulatory distinction".[1205] However, the first compliance panel also noted the similarity between the question, under Article I:1 of the GATT 1994, whether conditions imposed on access to an advantage modify the conditions of competition to the detriment of imported like products, and the first part of the analysis under Article 2.1 of the TBT Agreement, which also concerns the effect of a measure on the competitive opportunities of imported products. The panel therefore took its findings under Article 2.1 of the TBT Agreement into account in considering Mexico's claim under Article I:1 of the GATT 1994.[1206] For the same reason, the panel found it appropriate to rely on its factual findings made in connection with Mexico's claim under Article 2.1 of the TBT Agreement in assessing the claim under Article I:1 of the GATT 1994.[1207] On this basis, the first compliance panel found that the 2013 Tuna Measure violated Article I:1 of the GATT 1994.[1208]

7.721. Similarly, the first compliance panel stated that, while not identical, the legal tests under Article 2.1 of the TBT Agreement (the first tier in particular) and Article III:4 of the GATT 1994 have elements in common, and that, therefore, in resolving Mexico's claim under the latter, the panel would take account of its legal and factual findings under the former.[1209] In the panel's view,

[1202] Panel Report, *US – Tuna II (Mexico)*, para. 7.748.
[1203] Appellate Body Report, *US – Tuna II (Mexico)*, para. 405.
[1204] Appellate Body Report, *US – Tuna II (Mexico)*, para. 405.
[1205] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.432 (internal citations omitted).
[1206] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.433.
[1207] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.434.
[1208] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.442, 7.451, 7.456, 7.465.
[1209] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.494.

"it would be rare for a panel that had found that a measure detrimentally modifies the conditions of competition within the meaning of the first tier of Article 2.1 of the TBT Agreement to find that the same measure nevertheless does not accord less favourable treatment within the meaning of Article III:4 of the GATT 1994".[1210] On this basis, the first compliance panel found that the 2013 Tuna Measure was inconsistent with the obligation set forth in Article III:4 of the GATT 1994.[1211]

7.722. On appeal, the Appellate Body did not find inappropriate the first compliance panel's articulation of the legal tests under Articles I:1 and III:4 of the GATT 1994, noting that "in assessing whether a measure affects competitive conditions under Article I:1 and/or Article III:4 of the GATT 1994, it may be reasonable for a panel to rely on any relevant findings it made in examining that measure's detrimental impact under Article 2.1 of the TBT Agreement".[1212] However, the Appellate Body found two legal errors in the panel's legal analyses under Articles I:1 and III:4. First, the Appellate Body noted that the panel's segmented analysis, whereby the panel failed to conduct a holistic assessment of how the various labelling conditions, taken together, adversely affected the conditions of competition for Mexican tuna products in the US market as compared to like US and other tuna products, as well as the panel's failure to consider whether the detrimental impact caused by the 2013 Tuna Measure resembled the detrimental impact found to exist in the original proceedings, also affected the panel's analysis under Articles I:1 and III:4 of the GATT 1994.[1213] Second, the Appellate Body stated that its finding of error in respect of the panel's discrete detrimental impact analyses regarding the certification and tracking and verification requirements, for being based on a subset of the relevant groups of like products, applied equally to the panel's findings under Articles I:1 and III:4 of the GATT 1994.[1214]

7.723. On this basis, the Appellate Body reversed the first compliance panel's findings under Articles I:1 and III:4 of the GATT 1994.[1215] In completing the analysis, the Appellate Body noted its finding, in the context of its legal analysis under Article 2.1 of the TBT Agreement, that the labelling conditions under the 2013 Tuna Measure modified the conditions of competition to the detriment of Mexican tuna products in the US market[1216], and, on that basis, found that the Measure is inconsistent with Articles I:1 and III:4 of the GATT 1994.[1217]

7.724. With regard to the first compliance panel's analysis under Article XX of the GATT 1994, given that neither party challenged the panel's finding that the 2013 Tuna Measure was provisionally justified under Article XX(g), the Appellate Body turned to the parties' claims under the chapeau of Article XX.[1218] In this connection, the Appellate Body expressed concern about the panel's view that "the relevant conditions for certain aspects of the measure (the eligibility criteria) somehow differ from the relevant conditions for other aspects of the measure (the certification requirements), and its ultimate conclusion that the conditions are *not the same* for the former, but are *the same* for the latter".[1219] The Appellate Body then stated that "the prevailing conditions between countries are the risks of adverse effects on dolphins arising from tuna fishing practices[]" and proceeded "on the basis that the conditions prevailing between countries are the same for purposes of the chapeau of Article XX of the GATT 1994".[1220]

7.725. Turning to the issue of whether the 2013 Tuna Measure was applied in a manner that would constitute a means of "arbitrary or unjustifiable discrimination" within the meaning of the chapeau of Article XX, the Appellate Body first underlined that it did not find error in the panel's articulation of the relevant legal standard, which was similar to the legal standard the panel had articulated under Article 2.1 of the TBT Agreement.[1221]

7.726. With regard to the panel's application of that legal standard, however, the Appellate Body identified several errors. First, with respect to the eligibility criteria, the Appellate Body found error in the panel's statement that "the Appellate Body in the original proceedings had settled that the

[1210] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.494.
[1211] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.504.
[1212] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.278.
[1213] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.280.
[1214] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.281.
[1215] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.282.
[1216] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.239.
[1217] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.340.
[1218] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.284.
[1219] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.305.
[1220] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.308.
[1221] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.315-7.322.

United States is entitled to disqualify tuna products containing tuna caught by setting on dolphins from ever accessing the dolphin-safe label, and that it may bring its dolphin-safe labelling regime into conformity with Article 2.1 without disqualifying methods of tuna fishing other than setting on dolphins".[1222] Second, regarding the panel's analysis of the certification and tracking and verification requirements, the Appellate Body stated that the panel's segmented analysis, which was found to be inconsistent with Article 2.1 of the TBT Agreement, also led to legal error in the panel's assessment of the certification and tracking and verification requirements under the chapeau of Article XX.[1223] On these bases, the Appellate Body reversed the first compliance panel's findings under the chapeau of Article XX of the GATT 1994.[1224]

7.727. In completing the legal analysis, the Appellate Body recalled that "the same conditions between countries prevail, namely, the risk of adverse effects on dolphins arising from tuna fishing practices".[1225] The Appellate Body then turned to the issue of "arbitrary or unjustifiable discrimination"[1226], and recalled that, the panel had based its legal analysis under the chapeau of Article XX on its legal analysis under Article 2.1 of the TBT Agreement, and stated that "so long as the similarities and differences between Article 2.1 of the TBT Agreement and Article XX of the GATT 1994 are taken into account, it may be permissible to rely on reasoning developed in the context of one agreement for purposes of conducting an analysis under the other".[1227] The Appellate Body noted that since the panel in its analysis under the chapeau of Article XX had relied only on unobservable harms caused to dolphins by different fishing methods, the Appellate Body was "unable to complete the legal analysis and assess fully whether all of the regulatory distinctions drawn under the amended tuna measure can be explained and justified in the light of differences in the relative risks associated with different methods of fishing for tuna in different areas of the oceans".[1228]

7.728. However, the Appellate Body was able to examine whether the labelling conditions under the 2013 Tuna Measure "constitute[d] arbitrary or unjustifiable discrimination in certain scenarios that would present comparably high risks to dolphins inside and outside the ETP large purse-seine fishery".[1229] In the Appellate Body's view, certain aspects of the 2013 Tuna Measure were "difficult to reconcile with the objective of protecting dolphins from harm".[1230] In particular, the Appellate Body underlined the fact that "the determination provisions do not provide for the substantive conditions of access to the dolphin-safe label to be reinforced by observer certification in all circumstances of comparably high risk, and that this may also entail different tracking and verification requirements than those that apply inside the ETP large purse-seine fishery".[1231] On this basis, the Appellate Body concluded that the United States had not established that the 2013 Tuna Measure, which was found to be inconsistent with Articles I:1 and III:4 of the GATT 1994, was justified under Article XX of the GATT 1994.

7.9.2 Assessment of Mexico's claims under Articles I:1, III:4, and the United States' defence under Article XX of the GATT 1994 in the present proceedings

7.729. In the present proceedings, both parties agree that the 2016 Tuna Measure violates both Article I:1 and Article III:4 of the GATT 1994.[1232] Bearing in mind the legal standards under these provisions, as explained by the first compliance panel[1233], the approach to these provisions by the Appellate Body in the first compliance proceedings[1234], and our finding above that the 2016 Tuna Measure modifies the conditions of competition to the detriment of Mexican tuna products in the

[1222] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.326.
[1223] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.332.
[1224] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.335.
[1225] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.342.
[1226] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.343.
[1227] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.346-7.347.
[1228] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.359.
[1229] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.359.
[1230] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.359.
[1231] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.359.
[1232] In this regard, we note the United States' acknowledgement that "the basis for the DSB's previous finding that the US measure is inconsistent with Articles I:1 and III:4 is unchanged and the United States does not dispute those findings for purposes of this proceeding". United States' first written submission, para. 190.
[1233] See Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, paras. 7.404-7.416, 7.434, 7.469-7.481, and 7.494-7.495.
[1234] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 8.1(d)(ii).

US market[1235], we agree with the parties and find that the 2016 Tuna Measure is inconsistent with Articles I:1 and III:4 of the GATT 1994.

7.730. Both parties also agree that the Measure is provisionally justified under subparagraph (g) of Article XX.[1236] Bearing in mind the findings on this issue made by the panel[1237] and the Appellate Body in the first compliance proceedings[1238], we agree with the parties and find that the 2016 Tuna Measure is provisionally justified under subparagraph (g) of Article XX. Thus, the disagreement between the parties centres around the issue of whether the 2016 Tuna Measure is applied in a manner that would constitute a means of "arbitrary or unjustifiable discrimination" within the meaning of the chapeau of Article XX.

7.731. We recall that "the Appellate Body has identified three analytical elements in respect of arbitrary or unjustifiable discrimination in the chapeau of Article XX: (i) the application of the measure results in discrimination; (ii) the discrimination occurs between countries where the same conditions prevail; and (iii) the discrimination is arbitrary or unjustifiable".[1239]

7.732. With respect to the first element of the test, we recall the Appellate Body's finding in the first compliance proceedings that "by excluding most Mexican tuna products from access to the dolphin-safe label, while granting conditional access to such label to like products from the United States and other countries, the amended tuna measure, similar to the original measure, modifies the conditions of competition to the detriment of Mexican tuna products in the US market".[1240] We note that the 2016 Tuna Measure maintains the overall architecture and structure of the original and 2013 Tuna Measures. We therefore find that the 2016 Tuna Measure continues to cause the same detrimental impact resulting from the discriminatory treatment between tuna products containing tuna caught in the ETP large purse seine fishery and those containing tuna caught in other fisheries. We note that the parties also agree with this view.[1241]

7.733. With respect to the second element of the test, we first recall the Appellate Body's statement in the first compliance proceedings that the conditions prevailing between countries are the same for purposes of the chapeau of Article XX of the GATT 1994, namely, "the risks of adverse effects on dolphins arising from tuna fishing practices".[1242] Neither of the parties have argued otherwise in the present proceedings.[1243]

7.734. With respect to the third element of the test, we recall the Appellate Body's statement in the first compliance proceedings that, in determining whether a particular measure is applied in a manner that constitutes a means of "arbitrary or unjustifiable discrimination" within the meaning of the chapeau of Article XX, "so long as the similarities and differences between Article 2.1 of the TBT Agreement and Article XX of the GATT 1994 are taken into account, it may be permissible to rely on reasoning developed in the context of one agreement for purposes of conducting an analysis under the other".[1244]

7.735. We also recall that the Appellate Body found two errors in the first compliance panel's findings under the chapeau of Article XX. First, with respect to the eligibility criteria, the Appellate Body found error in the panel's statement that "the Appellate Body in the original proceedings had settled that the United States is entitled to disqualify tuna products containing tuna caught by setting on dolphins from ever accessing the dolphin-safe label, and that it may bring its dolphin-safe labelling regime into conformity with Article 2.1 without disqualifying methods of tuna

[1235] See para. 7.78 above.
[1236] The United States contends that "the measure is provisionally justified under Article XX(g)". United States' first written submission para. 196. We also note that "Mexico does not dispute that the 2016 tuna measure can be provisionally justified under subparagraph (g) of Article XX". Mexico's first written submission, para. 336.
[1237] Panel Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.541.
[1238] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.341.
[1239] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.301 (internal citations omitted).
[1240] Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 7.238.
[1241] United States' first written submission, para. 69; Mexico's first written submission, para. 204.
[1242] See fn. 1220 above.
[1243] Mexico's response to Panels' question No. 110; United States' response to Panels' question No. 110.
[1244] See fn. 1227 above.

fishing other than setting on dolphins".[1245] In the present proceedings, we have not relied on any such assumption in our analysis under Article 2.1 of the TBT Agreement.

7.736. Second, the Appellate Body faulted the first compliance panel for conducting a segmented analysis of the certification and tracking and verification requirements of the 2013 Tuna Measure, and pointed out that such an analysis also compromised that panel's analysis under the chapeau of Article XX of the GATT 1994.[1246] Mindful of this finding, in our assessment of Mexico's claim under Article 2.1 of the TBT Agreement, we conducted a holistic assessment of the various elements making up the 2016 Tuna Measure. To this end, we first analysed the various elements of the 2016 Tuna Measure. Specifically, we assessed whether each of the main elements of the Measure, namely the eligibility criteria and the certification, and tracking and verification requirements, were calibrated to different levels of risks posed to dolphins in different areas of the ocean, and found that they were. We also found that the determination provisions reinforce our finding that the 2016 Tuna Measure is calibrated because they allow the NOAA to heighten the level of certification and tracking and verification requirements for fisheries where the Assistant Administrator of NOAA has determined that a fishery has a regular and significant tuna-dolphin association (similar to that in the ETP), or has regular and significant dolphin mortality or serious injury.

7.737. We then provided a holistic assessment of all of these elements, taking into account the interlinkages among them, and found that, the 2016 Tuna Measure, as a whole, is calibrated.

7.738. We recall that, following the guidance provided by the Appellate Body in the first compliance proceedings, we conducted our legal analysis under Article 2.1 of the TBT Agreement on the basis of the concept of calibration, and found that the 2016 Tuna Measure is calibrated to different risks to dolphins arising from the use of different fishing methods in different areas of the ocean. On this basis, we reached our final conclusion that detrimental impact caused by the 2016 Tuna Measure stems exclusively from legitimate regulatory distinctions, and that, therefore, the Measure is consistent with Article 2.1 of the TBT Agreement.

7.739. In the circumstances of the present proceedings, and in light of the guidance provided by the Appellate Body in the first compliance proceedings, we find it appropriate to use our factual and legal findings in connection with Mexico's claims under Article 2.1 of the TBT Agreement, in our assessment of whether the 2016 Tuna Measure is applied in a manner that constitutes arbitrary or unjustifiable discrimination within the meaning of the chapeau of Article XX of the GATT 1994. In taking this approach, we bear in mind the differences between the requirements of Article 2.1 of the TBT Agreement and those of the chapeau of Article XX of the GATT 1994. In particular, we are cognizant that the requirement that for detrimental impact caused by discriminatory treatment to be in violation of Article 2.1 of the TBT Agreement, it has to be shown that detrimental impact does not stem exclusively from a legitimate regulatory distinction, does not apply under the chapeau of Article XX. However, given our finding that the 2016 Measure is calibrated to the levels of risks posed by different fishing methods in different parts of the ocean, we do not see any reason to find that the same Measure is applied in a manner that constitutes a means of arbitrary or unjustifiable discrimination. We recall that calibration means that the 2016 Tuna Measure is "tailored to", and "commensurate with", the different risks to dolphins caused by different fishing methods in different parts of the ocean. We do not consider that the Measure, which is tailored to and commensurate with the relevant risks, can be said to be applied in a manner that constitutes a means of "arbitrary or unjustifiable discrimination" within the meaning of Article XX of the GATT 1994. In other words, we consider that the different elements the 2016 Tuna Measure, both individually and in connection with one another, when applied to the different risks to dolphins posed by different fishing methods in different parts of the ocean, do not constitute a means of arbitrary or unjustifiable discrimination. In any case, we note that the parties, in their submissions to the Panels, also took the view that whether the 2016 Tuna Measure is applied in a manner that constitutes a means of arbitrary or unjustifiable discrimination depends on whether the Panels find the Measure to be consistent with the requirements of Article 2.1 of the TBT Agreement.[1247]

[1245] See fn. 1222 above.

[1246] See fn. 1214 above.

[1247] The United States argues that "[t]he United States has previously explained that the measure meets the conditions of Article XX of the GATT 1994 for the same reasons that it is consistent with Article 2.1, a point that is completely consistent with the Appellate Body's guidance that a measure that is appropriately calibrated

7.740. On the basis of the foregoing, having found, in our analysis under Article 2.1 of the TBT Agreement, that the Measure is calibrated to different levels of risks posed to dolphins by different fishing methods in different areas of the ocean, we also find that the Measure is not applied in a manner that constitutes a means of arbitrary or unjustifiable discrimination, and is therefore justified under Article XX of the GATT 1994.

to the risk to dolphins will meet the standards of both Article 2.1 and the chapeau of Article XX". United States' third written submission, para. 149 (internal citations omitted).

Mexico submits that "given that Mexico's arguments under both Article 2.1 and the chapeau are grounded in arbitrary and unjustifiable discrimination, it is appropriate for Mexico to rely upon its submissions regarding the lack of calibration in Section IV.C.2. to establish that the 2016 tuna measure is applied in a manner that constitutes a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail and, therefore, the requirements of the chapeau are not met". Mexico's first written submission, para. 337 (internal citations omitted).

8 CONCLUSIONS AND RECOMMENDATION(S)

8.1. We recall that after consulting with the parties, the Panels decided to issue their Reports in a single document, with the understanding that the final sections on conclusions and recommendations would be printed on separate pages with the relevant DS symbol. Accordingly, we provide two separate sets of conclusions and recommendations, with separate symbols for each complainant (WT/DS381/RW/USA for the United States and WT/DS381/RW/2 for Mexico).

8.1 Proceedings brought by the United States: Conclusions and Recommendations

8.2. With respect to the United States' claim under Article 2.1 of the TBT Agreement, the Panel concludes that the 2016 Tuna Measure is not inconsistent with Article 2.1 of the TBT Agreement.

8.3. With respect to the United States' defence under Article XX of the GATT 1994, the Panel concludes that the 2016 Tuna Measure is justified under Article XX(g) of the GATT 1994, and meets the requirements of the chapeau of Article XX of the GATT 1994.

8.4. The Panel therefore considers that the United States has implemented the recommendations and rulings of the DSB in *US – Tuna II (Mexico)* and *US – Tuna II (Mexico) (Article 21.5 – Mexico*) to bring its measure into conformity with its obligations under the WTO Agreement.

8.5. Having found that the United States has not acted inconsistently with its obligations under the WTO Agreement, the Panel considers that no recommendation under Article 19.1 of the DSU is necessary, and makes none.

8.2 Proceedings brought by Mexico: Conclusions and Recommendations

8.6. With respect to Mexico's claim under Article 2.1 of the TBT Agreement, the Panel concludes that the 2016 Tuna Measure is not inconsistent with Article 2.1 of the TBT Agreement.

8.7. With respect to Mexico's claims under the GATT 1994, the Panel concludes that the 2016 Tuna Measure is inconsistent with Articles I:1 and III:4 of the GATT 1994, but that it is justified under Article XX(g) of the GATT 1994, and meets the requirements of the chapeau of Article XX of the GATT 1994.

8.8. The Panel therefore considers that the United States has implemented the recommendations and rulings of the DSB in *US – Tuna II (Mexico)* and *US – Tuna II (Mexico) (Article 21.5 – Mexico*) to bring its measure into conformity with its obligations under the WTO Agreement.

8.9. Having found that the United States has not acted inconsistently with its obligations under the WTO Agreement, the Panel considers that no recommendation under Article 19.1 of the DSU is necessary, and makes none.