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Report No: PAD3249

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT
ON A
PROPOSED GRANT

IN THE AMOUNT OF SDR 14.2 MILLION
(US\$19.5 MILLION EQUIVALENT)

TO THE

REPUBLIC OF KIRIBATI

FOR A

KIRIBATI: PACIFIC ISLANDS REGIONAL OCEANSCAPE PROGRAM

February 20, 2020

Environment, Natural Resources & Blue Economy Global Practice
East Asia And Pacific Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective December 31, 2019)

Currency Unit = Australian Dollar (AU\$)

AU\$1.43 = US\$1

US\$1.38283 = SDR 1

FISCAL YEAR

January 1 - December 31

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ABBREVIATIONS AND ACRONYMS

| | |
|-------|--|
| ABS | Australian Bureau of Statistics |
| AU\$ | Australian Dollar |
| CBA | Cost Benefit Analysis |
| CBR | Cost Benefit Ratio |
| CPPL | Central Pacific Producers Limited |
| CEO | Chief Executive Officer |
| CFD | Coastal Fisheries Division |
| CFP | Ciguatera Fish Poisoning |
| CGAP | Consolidated Gender Action Plan |
| CMM | Conservation and Management Measures |
| CSU | Central Services Unit |
| DA | Designated Account |
| DLI | Disbursement Linked Indicator |
| DPWG | Development Partner Working Group |
| EM | Electronic Monitoring |
| ER | Electronic Reporting |
| EEZ | Exclusive Economic Zone |
| ESMF | Environmental and Social Management Framework |
| EU | European Union |
| FAD | Fish Aggregating Device |
| FAO | Food and Agriculture Organization |
| FFA | Pacific Islands Forum Fisheries Agency |
| FM | Financial Management |
| FRDP | Framework for Resilient Development in the Pacific |
| FSM | Federated States of Micronesia |
| FY | Financial Year |
| GDP | Gross Domestic Product |
| GEF | Global Environment Fund |
| GHG | Green House Gas |
| GoK | Government of Kiribati |
| GRM | Grievance Redress Mechanism |
| GRS | Grievance Redress Services |
| HIES | Household Income and Expenditure Survey |
| IDA | International Development Association |
| IFR | Interim Unaudited Financial Report |
| IPCC | Intergovernmental Panel on Climate Change |
| IPF | Investment Project Financing |
| IPSAS | International Public-Sector Accounting Statement |
| IRR | Internal Rate of Return |
| IUFR | Interim Unaudited Financial Report |
| IUU | Illegal, Unreported and Unregulated Fishing |
| KDP | Kiribati Development Plan |
| KFL | Kiribati Fish Limited |
| KFSU | Kiribati Fiduciary Services Unit |

| | |
|-------|--|
| KM | Kilometer |
| KOHSI | Kiribati One Health Support Institute |
| KV20 | Kiribati Vision 20 |
| LFPR | Labor Force Participation Rate |
| M&E | Monitoring and Evaluation |
| MCIC | Ministry of Commerce, Industry and Cooperatives |
| MCS | Monitoring, Control and Surveillance |
| MELAD | Ministry of Environment, Lands and Agriculture Development |
| MFED | Ministry of Finance and Economic Development |
| MFMRD | Ministry of Fisheries and Marine Resources Development |
| MIA | Ministry of Internal Affairs |
| MISE | Ministry of Infrastructure and Sustainable Energy |
| MHMS | Ministry of Health and Medical Services |
| MIC | Middle Income Country |
| MLPID | Ministry of Line and Phoenix Island Development |
| MT | metric ton |
| NGO | Non-Governmental Organization |
| NM | nautical mile |
| NCD | Non-Communicable Diseases |
| NPV | Net Present Value |
| NZ\$ | New Zealand Dollar |
| OAG | Office of the Attorney General |
| OCS | Operational Compliance Strategy |
| OPOC | Office of the Pacific Ocean Commissioner |
| PEUMP | Pacific-European Union Marine Partnership |
| PDO | Project Development Objective |
| PIC | Pacific Island Country |
| PIFS | Pacific Islands Forum Secretariat |
| PMU | Project Management Unit |
| PNA | Parties to the Nauru Agreement |
| POM | Project Operation Manual |
| PPA | Programmatic Preparation Advance |
| PPP | Purchasing Power Parity |
| PPSD | Project Procurement Strategy for Development |
| PROP | Pacific Islands Regional Oceanscape Program |
| PS | Purse Seine |
| PSC | Project Steering Committee |
| PSMA | Port State Measures Agreement |
| RBA | Reserve Bank of Australia |
| RMI | The Republic of the Marshall Islands |
| RPF | Resettlement Policy Framework |
| RPF9 | Regional Partnership Framework |
| SCP | Scombroid Fish Poisoning |
| SDR | Special Drawing Rights |
| SEP | Stakeholder Engagement Plan |
| SOP | Series of Projects |

| | |
|--------|---|
| SPC | The Pacific Community (formerly the Secretariat of the Pacific Community) |
| SPREP | Secretariat of the Pacific Regional Environment Programme |
| STEP | Systematic Tracking of Exchanges in Procurement |
| TA | Technical Assistance |
| TKA | Tokelau Arrangement |
| UNCLOS | United Nations Convention on the Law of the Sea |
| UNICEF | United Nations Children's Fund |
| US\$ | United States Dollar |
| USP | University of the South Pacific |
| VDS | Vessel Day Scheme |
| WA | Withdrawal Application |
| WB | World Bank |
| WCP-CA | Convention Area of the Western and Central Pacific Fisheries Commission |
| WCPFC | Western and Central Pacific Fisheries Commission |
| WCPO | Western Central Pacific Ocean |
| WHO | World Health Organization |



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DATASHEET

BASIC INFORMATION

| | | |
|--------------|---|-----------------------------------|
| Country(ies) | Project Name | |
| Kiribati | Kiribati: Pacific Islands Regional Oceanscape Program | |
| Project ID | Financing Instrument | Environmental Assessment Category |
| P165821 | Investment Project Financing | B-Partial Assessment |

Financing & Implementation Modalities

| | |
|---|---|
| <input type="checkbox"/> Multiphase Programmatic Approach (MPA) | <input type="checkbox"/> Contingent Emergency Response Component (CERC) |
| <input checked="" type="checkbox"/> Series of Projects (SOP) | <input checked="" type="checkbox"/> Fragile State(s) |
| <input type="checkbox"/> Disbursement-linked Indicators (DLIs) | <input checked="" type="checkbox"/> Small State(s) |
| <input type="checkbox"/> Financial Intermediaries (FI) | <input type="checkbox"/> Fragile within a non-fragile Country |
| <input type="checkbox"/> Project-Based Guarantee | <input type="checkbox"/> Conflict |
| <input type="checkbox"/> Deferred Drawdown | <input type="checkbox"/> Responding to Natural or Man-made Disaster |
| <input type="checkbox"/> Alternate Procurement Arrangements (APA) | |

| | |
|------------------------|-----------------------|
| Expected Approval Date | Expected Closing Date |
| 12-Mar-2020 | 30-Jun-2026 |

Bank/IFC Collaboration

No

Proposed Development Objective(s)

To improve management of selected fisheries and seafood safety in the Recipient's territory.

Components

| Component Name | Cost (US\$, millions) |
|----------------|-----------------------|
| | |



| | |
|---|------|
| Strengthening Monitoring, Control and Surveillance of Large-Scale Oceanic Fisheries | 6.62 |
| Diversifying Marine-Based Revenue Streams for Outer Island Coastal Communities | 5.97 |
| Improving Seafood Toxicology and Safety Measures in Selected Fisheries | 4.97 |
| Delivering Effective Project Management | 1.94 |

Organizations

Borrower: Republic of Kiribati

Implementing Agency: Ministry of Fisheries and Marine Resources Development

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

| | |
|--------------------|-------|
| Total Project Cost | 19.50 |
| Total Financing | 19.50 |
| of which IBRD/IDA | 19.50 |
| Financing Gap | 0.00 |

DETAILS

World Bank Group Financing

| | |
|---|-------|
| International Development Association (IDA) | 19.50 |
| IDA Grant | 19.50 |

IDA Resources (in US\$, Millions)

| | Credit Amount | Grant Amount | Guarantee Amount | Total Amount |
|--------------|---------------|--------------|------------------|--------------|
| Kiribati | 0.00 | 19.50 | 0.00 | 19.50 |
| National PBA | 0.00 | 14.20 | 0.00 | 14.20 |
| Regional | 0.00 | 5.30 | 0.00 | 5.30 |
| Total | 0.00 | 19.50 | 0.00 | 19.50 |

**Expected Disbursements (in US\$, Millions)**

| WB Fiscal Year | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
|----------------|------|------|------|------|------|-------|-------|-------|
| Annual | 0.06 | 0.73 | 1.21 | 2.35 | 3.99 | 4.80 | 4.90 | 1.46 |
| Cumulative | 0.06 | 0.78 | 2.00 | 4.35 | 8.34 | 13.14 | 18.04 | 19.50 |

INSTITUTIONAL DATA**Practice Area (Lead)**

Environment, Natural Resources & the Blue Economy

Contributing Practice Areas**Climate Change and Disaster Screening**

This operation has been screened for short and long-term climate change and disaster risks

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

| Risk Category | Rating |
|---|---------------|
| 1. Political and Governance | ● Substantial |
| 2. Macroeconomic | ● Moderate |
| 3. Sector Strategies and Policies | ● Substantial |
| 4. Technical Design of Project or Program | ● Moderate |
| 5. Institutional Capacity for Implementation and Sustainability | ● Substantial |
| 6. Fiduciary | ● Substantial |
| 7. Environment and Social | ● Moderate |
| 8. Stakeholders | ● Moderate |
| 9. Other | |
| 10. Overall | ● Substantial |



COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

[] Yes [✓] No

Does the project require any waivers of Bank policies?

[] Yes [✓] No

| Safeguard Policies Triggered by the Project | Yes | No |
|--|-----|----|
| Environmental Assessment OP/BP 4.01 | ✓ | |
| Performance Standards for Private Sector Activities OP/BP 4.03 | ✓ | |
| Natural Habitats OP/BP 4.04 | ✓ | |
| Forests OP/BP 4.36 | ✓ | |
| Pest Management OP 4.09 | ✓ | |
| Physical Cultural Resources OP/BP 4.11 | ✓ | |
| Indigenous Peoples OP/BP 4.10 | ✓ | |
| Involuntary Resettlement OP/BP 4.12 | ✓ | |
| Safety of Dams OP/BP 4.37 | ✓ | |
| Projects on International Waterways OP/BP 7.50 | ✓ | |
| Projects in Disputed Areas OP/BP 7.60 | ✓ | |

Legal Covenants

Sections and Description

The Recipient shall, by no later than 2 months after the Effective Date, establish and thereafter maintain throughout the Project implementation period, a Project Steering Committee chaired by its Secretary at the time responsible for fisheries (or their designee) and comprising representatives of the Kiribati Fiduciary Services Unit, the Office of the Attorney-General, MFMRD, MFED, MELAD, MLPID and MHMS, which shall be responsible for providing general oversight and coordination as well as strategic direction and guidance of the Project implementation. (Section I.A.1 of Schedule 2 to the Financing Agreement)

Sections and Description

The Recipient shall maintain, throughout the Project implementation period, a Project Management Unit within the MFMRD, with a mandate, composition and resources satisfactory to the Association, which shall be responsible for



day to day implementation of the Project, with support from the Kiribati Fiduciary Services Unit. (Section I.A.2 of Schedule 2 to the Financing Agreement)

Sections and Description

The Recipient shall ensure that the Project Management Unit includes the following minimum personnel, or is supported by personnel with such expertise from the Kiribati Fiduciary Services Unit, throughout the Project implementation period: (i) Project manager; (ii) Project accountant (iii) monitoring and evaluation officer; (iv) procurement officer; (v) stakeholder engagement and safeguards officer; (vi) gender officer; and (vii) Kiritimati operations officer, each with terms of reference, qualifications and experience satisfactory to the Association. (Section I.A.3 of Schedule 2 to the Financing Agreement)

Sections and Description

The Recipient shall provide the Project Management Unit and the Kiribati Fiduciary Services Unit at all times with adequate funds and other resources, mandate/functions, and with qualified and experienced personnel in adequate numbers, as shall be necessary to accomplish the Project objective as further detailed in the Project Operations Manual. (Section I.A.4 of Schedule 2 to the Financing Agreement)

Sections and Description

The Recipient shall: (a) by not later than 2 months after the Effective Date, prepare and adopt a Project Operations Manual; and (b) thereafter ensure that the Project is carried out in accordance with the Project Operations Manual. (Section I.B of Schedule 2 to the Financing Agreement)

Sections and Description

The Recipient shall prepare and provide to the Association, by not later than 2 months after the Effective Date and February 1 of each subsequent year during the implementation of the Project, for the Association's review and approval, an Annual Work Plan and Budget. The Recipient shall ensure that the Project is implemented in accordance with the Annual Work Plans and Budgets approved by the Association for the respective fiscal year. (Section I.C of Schedule 2 to the Financing Agreement)

Sections and Description

The Recipient shall ensure that all fisheries monitoring, control and surveillance activities carried out by the Recipient under the Project are in compliance with the provisions of Section 1.D.4 of Schedule 2 to the Financing Agreement. (Section I.D.4 of Schedule 2 to the Financing Agreement)

Sections and Description

The Recipient shall carry out, jointly with the Association, by not later than three years after the Effective Date, or such other period as may be agreed with the Association, a mid-term review of the Project. (Section II.2 of Schedule 2 to the Financing Agreement)

Conditions

| Type | Description |
|--------------|---|
| Disbursement | Disbursement condition: No withdrawal shall be made for Eligible Expenditures under |



Category (2) unless and until the Association is satisfied that the Recipient's fisheries laws and regulations are consistent with the provisions of Article 73 of the United Nations Convention on the Law of the Sea. (Section III.B.1(b) of Schedule 2 to the Financing Agreement)



I. STRATEGIC CONTEXT

A. Country Context

1. **Kiribati is one of the smallest and most geographically dispersed countries in the world.** The Republic of Kiribati is a sovereign state in Micronesia consisting of 32 atolls and one raised coral island with a land area of 800 square kilometers spread over one of the world's largest Exclusive Economic Zones (EEZ) of about 3.5 million square kilometers. Kiribati is comprised of three island chains with the Gilbert Islands in the West, the Phoenix Islands in the center and the Line Islands in the East all of which straddle the equator. Kiribati was part of a former British colony of the Gilbert and Ellice Islands and gained independence in 1979. Today, Kiribati has a population of 114,000, more than half of whom live on the Tarawa Atoll in the Gilbert Islands.
2. **Kiribati is one of the most ‘fisheries dependent’ countries in the world.** Located 4,000 kilometers from its trading partners, Kiribati is faced with extremely limited growth prospects beyond fisheries. The Kiribati Development Plan and Kiribati Vision 20 (KV20) emphasize that increasing sustainable returns from fisheries is critical to ensuring inclusive growth and private sector development. In 2016, upwards of 75 percent of total Government revenue was generated from fisheries access payments by foreign purse seine fleets fishing under bilateral and multilateral access arrangements and transshipment fees operating in the Kiribati EEZ^{1,2}. In 2015, estimated exports of fish and fishery products were valued at US\$121.4 million, with tuna as the main species exported. Tuna catches increased from 30 percent of total catch in 2005 to 96 percent in 2016. In addition, the sector provides direct benefits through subsistence coastal fisheries and jobs in fishing, processing and transshipment operations. Coastal fisheries resources also underpin the well-being of coastal communities. As such, Kiribati’s long-term revenue generation and food security are predicated on the sustainability of its fisheries resources which in turn depend on good management of its resources and an effective system of Monitoring, Control and Surveillance (MCS) to prevent or deter Illegal, Unreported and Unregulated (IUU) fishing.
3. **Poverty trends in Kiribati are difficult to assess given the infrequency of data collection.** The last Household Income and Expenditure Survey (HIES) was conducted in 2006 and showed that the poverty rate was 34.6 percent based on the lower Middle-Income Country (MIC) poverty line and 12.9 percent based on the international poverty line. Poverty rates were relatively higher in South Tarawa (24.2 percent), where population pressure is high and land/sea resources limited, compared to the Line and Phoenix Islands (8.9 percent). The Gini Coefficient was 37. Women who head households with dependent children, are more vulnerable to poverty than others.³ Unemployment is particularly high for youth (73 percent of women and 62 percent of men aged 15-24). The need to create employment for Kiribati youth is critical as 2,000 young people enter the labor market each year⁴, while there are less than 600 formal employment positions available and less than 400 places available in training institutions. People in formal employment often support many others (i.e., the income of approximately 20,000 people supports 103,000)⁵. Of special note, Kiribati has important achievements in advancing gender equity in public sector employment (e.g.,

¹ The most recent review was completed in 2017: Ministry of Fisheries and Marine Resources Development (MFMRD) and Ministry of Finance and Economic Development (MFED). 2017. Fishing license revenues: 2017 Report. 16 pages.

² The Government recognizes the fluctuations in the regional dispersal of fishing effort in the purse seine fishery results in some volatility in fishing revenue which is a key fiscal consideration (MFMRD and MFED, 2017).

³ Nationally, one in five households have a female head, and in the poorest areas of South Tarawa and South Gilbert Islands one in four households are headed by females. Source: Ministry of Women, Youth, Sports and Social Affairs (2019) National Policy on Gender Equality and Women’s Development. Tarawa: Government of Kiribati.

⁴ Government of Kiribati, 2019: 14

⁵ Department of Foreign Affairs and Trade, 2014: 8



women hold 54 percent of Ministerial Secretary positions).⁶ However, women face added structural barriers to running businesses compared to men including access to finance, credit and land plus they bear primary responsibility for care of children and the elderly.⁷ Poverty, high dependency rates, the lack of opportunities for new entrants into the labor market and barriers to entrepreneurship, leave many I-Kiribati vulnerable to economic and environmental shocks.

4. **Kiribati is one of the most vulnerable countries in the world to climate change.** It is widely recognized that Pacific Island nations are among the world's most physically and economically vulnerable to climate change and extreme weather events. The effects of sea level rise, storm surge, coastal erosion and saltwater intrusion increase Kiribati's vulnerability, in particular the viability of its coastal fisheries and related natural resources, given that most of its atolls are only 1.8 meters above sea level. A 2000 World Bank study showed that the thickness of the underground freshwater lens was projected to decrease by 12 percent with a 0.4-meter sea level rise and 10 percent reduction in rainfall⁸ and potentially as high as 38 percent when other factors are considered; rendering Kiribati uninhabitable (through loss of its freshwater lens) well before it is submerged. Notwithstanding the negative impacts expected through climate warming events, Kiribati is also expected to be a net beneficiary of increased abundance of tuna in its EEZ before 2050 due to an eastward shift in key stocks such as skipjack and yellowfin. Under a predicted Intergovernmental Panel on Climate Change (IPCC) warming scenario, Kiribati is expected to see a 17.7 percent gain in revenues from tuna fees, provided the country is positioned to take advantage of such changes which includes ensuring more effective management of fishing vessels operating within its EEZ.

B. Sectoral and Institutional Context

Western and Central Pacific Ocean

5. **The Western and Central Pacific Ocean (WCPO) is home to some of the world's most abundant populations of tuna representing a multi-billion-dollar industry.** Tuna is worth an estimated US\$5 billion annually in the global market of which US\$2.6 billion comes from Pacific Islands Forum Fisheries Agency (FFA)⁹ member countries. The WCPO tuna catch averaged 2.7 million tonnes per year between 2014 and 2018, with harvests from the EEZs of Pacific Island Countries (PICs) accounting for 58 percent of this catch. Purse-seine fishing produces an average of 70 percent of the WCPO tuna catch. The main tuna species targeted in the region are skipjack, yellowfin, bigeye and albacore¹⁰. The purse-seine catch is dominated by skipjack tuna (76percent), with yellowfin and bigeye tuna comprising 20 percent and 4 percent, respectively. Given the migratory nature of tuna resources, through numerous areas under national jurisdiction and the high seas, there is a need for close cooperation between coastal states, who are themselves developing their own fishing capability, and other countries outside the region that support fleets fishing and transshipping these stocks. In this regard, the link between management actions taken at national and regional levels to sustain these resources is critical.

⁶ Kiribati has achieved gender parity in primary school education and in secondary school.

⁷ See Asian Development Bank (2018) Women and Business in the Pacific, Manila: Asian Development Bank & Caulfield, T. (2018) Women's Economic Empowerment Feasibility Study Kiribati, Tarawa: Prepared for Pacific Women Shaping Pacific Development.

⁸ World Bank. 2000. Cities, Seas, and Storms Managing Change in Pacific Island Economies. Volume IV Adapting to Climate Change.

<http://siteresources.worldbank.org/INTPACIFICISLANDS/Resources/4-VolumeIV+Full.pdf>

⁹ FFA Member Countries: Kiribati, Niue, Cook Islands, Solomon Islands, Vanuatu, Federated States of Micronesia, Republic of the Marshall Islands, Tonga, Tuvalu, Samoa, Fiji, Nauru, Papua New Guinea, Palau, Tokelau and Australia and New Zealand.

¹⁰ Senina, I., Lehodey, P., Calmettes, B., Dessert, M., Hampton, J., Smith, N., Gorgues, T., Aumont, O., Lengaigne, M., Menkes, C., Nicol, S., and Gehlen, M. 2018.

Impact of climate change on tropical Pacific tuna and their fisheries in Pacific Islands waters and high seas areas. WCPFC-SC14-2018/EB-WP-01. Fourteenth Regular Session of the Scientific Committee of the Western and Central Pacific Fisheries Commission. Busan, Republic of Korea, 8-17 August 2018.



6. **Effective fisheries management in PICs is vital to regional governance of oceanic fisheries.** In 2007, Forum Leaders¹¹, reaffirmed the importance of fisheries and national tuna industries to the economies and communities of all Pacific Forum countries, and committed themselves to promoting domestic fisheries and developing national tuna industries. Leaders also committed to maintaining regional solidarity, upholding existing regional and national arrangements, and implementing appropriate conservation and management measures to ensure sustainability of the region's tuna resources. Within this context, fisheries management actions taken by Kiribati can significantly contribute to the maintenance of regional solidarity to increase national benefits flowing from their oceanic fisheries. Specifically, with an EEZ representing 22 percent of all FFA member countries EEZs, management actions taken by Kiribati have a significant impact on regional highly migratory tuna stocks. Accordingly, actions taken to minimize the risks from IUU fishing not only benefit Kiribati, but all PICs that share these stocks. Key risks to sustainability of tuna across the WCPO include: (i) effectiveness of conservation and management measures decided at the regional level by the Western Central Pacific Fisheries Commission (WCPFC)¹² to limit overfishing; and, (ii) effectiveness of individual efforts by each country to ensure vessels operating within their EEZ and on the high seas do so in full compliance with measures set nationally and internationally.
7. **A critical milestone in the exercise of Pacific States' sovereign rights over their 200-nautical mile EEZs was conclusion of the Nauru Agreement which marked the beginning of a new era in Pacific Island cooperation in the management of the region's tuna stocks.** In February 1982, the Nauru Agreement Concerning Cooperation in the Management of Fisheries of Common Interest process began. The Nauru Agreement was negotiated by seven Pacific Island states – Federated States of Micronesia (FSM), Kiribati, the Republic of the Marshall Islands (RMI), Nauru, Palau, Papua New Guinea (PNG) and Solomon Islands. This group of countries (later joined by Tuvalu) is known collectively as the Parties to the Nauru Agreement (PNA). The PNA group accounts for most of the tuna catch in the Pacific Island region. In 1999, it produced 98 percent of the tuna catch taken from the EEZs of FFA members; 70 percent came from three PNA members: PNG, FSM and Kiribati. The group also accounted for 94 percent of the access fees paid to Forum Fisheries Agency Pacific Island states. By controlling access to these fishing grounds, the PNA group collectively wields enormous influence and power.
8. **The most important fishery management tool of the PNA is the Purse Seine Vessel Day Scheme (PS VDS).** In 2000, a study suggested that the PNA purse-seine management scheme that was then based on vessel numbers be replaced by a scheme based on purse seine fishing days. The transition was made seven years later. In 2007, the PNA began implementing the VDS, transitioning from permitting a total number of purse seine vessels in the region (205) to permitting a total allowable effort (TAE) in number of purse seine fishing days (44,703 for 2012; 44,890 days for 2016). Given the volume, value and multi-jurisdictional nature of the fishery, it is arguably one of the most complex fishery management arrangements ever put in place. Key features of the VDS are:
 - A system of tradable fishing effort (days) allocated to the eight Parties
 - A limit on TAE of ~ 45,000 days
 - A TAE is allocated to Parties based on zonal biomass and historical effort as Party Allowable Effort
 - Fishing days sold to fleets for fishing in each EEZ
 - A minimum benchmark price for VDS days sold to foreign vessels

¹¹ Thirty-Eighth Pacific Islands Forum Nuku'alofa, Tonga 16 -17 October 2007 Forum Communiqué PIFS(07)12.

¹² The WCPFC was established by the Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPF Convention) which entered into force on June 19, 2004. The WCPF Convention draws on many of the provisions of the UN Fish Stocks Agreement (UNFSA) and aims to address challenges with management of high seas fisheries resulting from unregulated fishing, over-capitalization, excessive fleet capacity, vessel re-flagging to escape controls, insufficiently selective gear, unreliable databases and insufficient multilateral cooperation in respect to conservation and management of highly migratory fish stocks.



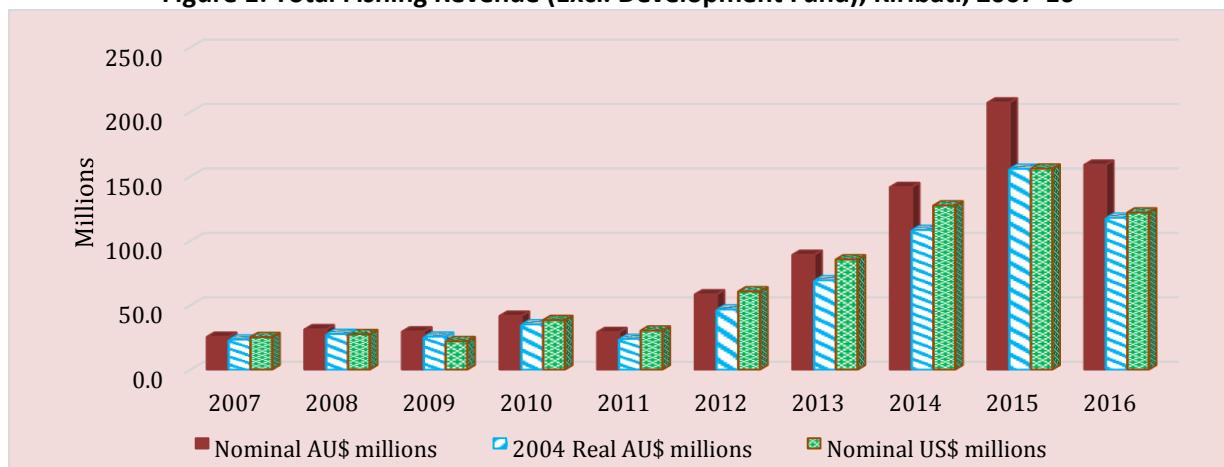
- Fishing days are monitored by satellite-based Vessel Monitoring System (VMS)
- VMS monitoring is supported by observers on board all vessels
- Days are tradable between Parties
- The Scheme costs are financed by levies on vessels

9. **The PS VDS creates competition for a limited number of days, thereby increasing the value of each day.** In practice, the value of a fishing day before the VDS was roughly US\$1,350, but the value increased to US\$5,000 in July 2011 and by 2016, days were sold for over US\$12,000. Another benefit is that the PS VDS moves fisheries management in the region to a more desirable rights-based system. That is, fishing rights (such as vessel days) can be defined, allocated, and traded.

Kiribati Offshore Fisheries

10. **Kiribati has the most productive EEZ in the WCPO in terms of fisheries.** Of the fishing nations in the Pacific, Kiribati has the highest volume of catch, contributing 28.4 percent to the regional total in 2016. And, since introduction of the VDS, Kiribati has enjoyed a significant increase in revenue from fishing licenses and transshipment fees (Figure 1, Table 1).

Figure 1: Total Fishing Revenue (Excl. Development Fund), Kiribati, 2007-16



Sources: MFED, Reserve Bank of Australia (RBA) and Australian Bureau of Statistics (ABS)

Table 1: Total Fishing Revenue (Excl. Development Funds), Kiribati, 2007-2016¹³

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|--------------------------------|------|------|------|------|------|------|------|-------|-------|-------|
| Nominal AU\$ millions | 25.4 | 31.2 | 29.5 | 41.7 | 29.1 | 58.3 | 89.0 | 141.6 | 207.1 | 158.9 |
| 2004 Real AU\$ millions | 23.3 | 27.6 | 25.5 | 35.1 | 23.7 | 46.6 | 69.2 | 108.2 | 155.7 | 117.7 |
| Nominal US\$ millions | 25.1 | 27.5 | 22.0 | 38.4 | 30.3 | 60.6 | 85.4 | 127.3 | 155.8 | 121.8 |

¹³ Sources: MFED, RBA, ABS



11. **Kiribati does not yet have the capacity to fully domesticate its tuna fisheries** and operates its offshore industrial fisheries through charter or partnership arrangements with other countries and commercial entities. In 2018, 42 industrial longline vessels were registered to fish in Kiribati waters including chartered long-liners flagged to China (37) and Fiji (two) and three Kiribati flag vessels. In the same year, the domestic purse seine fleet consisted of 10 joint-venture (Kiribati and Korean fishing companies) chartered purse seiners, ten Chinese-flagged purse seiners chartered by Kiribati Fish Limited (KFL) and one Kiribati-flagged vessel. Purse seiners from distant water fishing nations such as Korea, Taiwan, Japan, the United States and other Pacific Islands' flagged vessels also operate within the EEZ under bilateral or multilateral agreements (i.e., US-flagged fleet and vessels flagged to other FFA member countries operating under the regional Federated States of Micronesia (FSM) Arrangement). Although most licensed vessels offload in foreign ports, licensing conditions oblige some vessels to offload a proportion of their catch in Kiribati including fisheries by-products that are sold locally.
12. **In an effort to stimulate domestic participation in the tuna industry, Kiribati has supported investment in domestic tuna fisheries.** This investment includes 100 percent ownership of Central Pacific Producers Ltd (CPPL), a fishing company that operates three small long-liners based in Betio. CPPL also provides ship agency services for purse seiner transshipment and has a subsidiary office in Kiritimati offering similar services to purse seine fleet. In Betio, CPPL sells the catch from its longline operations to KFL. The Government has a 40percent share in KFL. KFL is also based in Betio where it supports the operations of a chartered longline fleet. In addition, as part of Kiribati's domestication of the offshore fishery, 24 of the 42 industrial longline vessels are scheduled to land their catches at a new fisheries processing center in Kiritimati in the near future.
13. **Kiribati's transition to a fully domesticated tuna fishery will require upscaling investments in its fisheries management capacity to ensure all fishing operations are in full compliance with WCPFC Conservation and Management Measures (CMM) and that risks from IUU fishing occurring in the Kiribati EEZ have been minimized.** A recent national analysis of MCS capacity identified 43 high and severe risks associated with MCS that should be addressed as a priority. These include: training in acquisition, storage and sharing of MCS information among relevant agencies, review and strengthening fisheries legislation, training in investigations and prosecutions and capacity building for at-sea surveillance and observer support for port inspections and controls, and systems supporting transshipment monitoring, among others.
14. **While the PS VDS is implemented as part of the WCPFC CMM for bigeye and yellowfin tuna in the Western and Central Pacific Ocean (2005-01), this is not same for the longline VDS which currently does not play any role in the management of the stocks, since day allocations remain aspirational.** The collection and analyses of data from the Kiribati longline fishery, through e-monitoring (EM) and e-reporting (ER), can inform further refinements in the scheme which is expected to be reviewed in 2021, after which its role as a fisheries management tool will be reconsidered with respect to reporting, monitoring and compliance. This is important because of the disparity between rates for human observer coverage on longline vessels (5 percent) compared to purse seine vessels (100 percent).
15. **Kiribati is working to strengthen efforts to prevent and deter IUU fishing.** One of the greatest challenges to effective fisheries management is tackling IUU fishing which undermines national and regional efforts to manage fisheries sustainably. IUU fishing exploits weak management regimes in countries lacking the capacity and resources for effective MCS. IUU fishing occurs on the high seas and in areas within national jurisdiction and it concerns all aspects and stages of the capture and utilization of fish. Products derived from IUU fishing can find their way into overseas markets thereby reducing local food supplies of fresh, nutritious fish. Under the European Commission's IUU



Regulation¹⁴, non-EU countries identified as having inadequate measures in place to prevent and deter IUU fishing may be issued a formal warning (yellow card) to improve. If they fail to do so, they face having their fish banned from the EU market (red card). In 2016, the Commission concluded that Kiribati was failing to discharge its duties under international law as a flag, port, coastal or market State and to take actions to prevent, deter and eliminate IUU fishing. As a consequence, Kiribati was issued a yellow card. Kiribati is currently cooperating with the EU and working towards removal of the yellow card, but further actions are required. The absence of dedicated MCS facilities and equipment to effectively discharge boarding and inspection responsibilities along with inadequately trained MCS officers are significant factors associated with issuance of the yellow card. The Commission has encouraged Kiribati to strengthen its Port State controls, including through implementing the Food and Agriculture Organization (FAO) Port State Measures Agreement. The Commission noted that by doing so, Kiribati would send a strong message to fishing nations regarding Kiribati's commitment to prevent, deter and eliminate IUU fishing.

Kiribati Coastal Fisheries

16. **Kiribati has one of the highest per capita fish consumption rates in the world.** The I-Kiribati rely heavily on fishing for subsistence and commercial purposes. FAO estimates that the per capita seafood consumption in Kiribati was 76.3 kg in 2013 (global average is 20.2 kg). Kiribati's coastal fisheries are subsistence and small-scale commercial fisheries that operate in lagoons, reefs, reef slopes and nearshore ocean areas with women, youth and children involved in gleaning and coastal fishing. Some coastal fisheries are also export oriented, mainly for aquarium fish and invertebrates. Subsistence and small-scale commercial fishing are conducted throughout the islands using traditional canoes powered by sail or paddle, plywood canoes with outboard motors, and larger crafts powered by outboards. Small-scale commercial fishing is concentrated around Tarawa, where a sizable population, cash-oriented economy, and ice and cold-store facilities provide suitable market conditions. In terms of fishing communities, the Kiribati 2015 census found that 12,196 households (67 percent of households) had at least one member who fished regularly. Most of these households fished for consumption purposes.
17. **Unless actions are taken to increase climate resilience and reduce pressure on over exploited coastal fish species, further declines in productivity will occur affecting domestic supply.** The total number of coastal artisanal fishing vessels operating in Kiribati in 2015 was 1,669¹⁵. Coastal commercial fisheries production for 2014 was 7,600 tonnes valued at US\$13 million, with coastal subsistence fisheries production volume of 11,440 tonnes valued at US\$14 million. However, the main trend in coastal fisheries is increased exploitation of coastal resources close to urban markets coupled with the increasing adverse impacts of climate change (storm surge, sea level rise, coastal erosion), a decrease in fisheries production due to overexploitation, coastal pollution and habitat degradation in the Tarawa lagoon and highly populated coastal areas of Kiritimati. Catches from small-scale coastal fisheries are primarily landed in Tarawa. However, small-scale landing of shallow water lagoon species at locations outside Tarawa have expanded in recent years due to increased ice production in select outer islands. Some islands also have cold storage, enabling storage for local sale and shipment to Tarawa. Investing in such efforts as well as migrating nearshore effort onto nearshore Fish Aggregating Devices (FADs), targeting tuna, is an effective way to increase domestic supply while allowing near shore resources to rebuild, provided that such actions are part of a broader coastal fisheries management strategy.

¹⁴ Council Regulation (EC) No 1005/2008 of 29 September 2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing

¹⁵ IBID



18. Management of coastal fisheries is weak but remains a Government priority. MFMRD's Coastal Fisheries Division (CFD) is responsible for ensuring sustainable management, development and conservation of coastal fisheries resources in Kiribati. In tandem, Island Councils hold primary authority to regulate management of their adjacent waters out to three nautical miles, including fisheries activities. Compliance with coastal fishery conservation and management measures remains weak due to insufficient institutional capacity, lack of clarity concerning access rights and limited community participation in decision-making. Introduction of an open access regime over customary access rights has exacerbated conflict over resource management and control of coastal fisheries, particularly around urban areas. To address these issues, in October 2018, CFD initiated formulation of a roadmap for coastal fisheries development reflecting four objectives: (i) empowered communities; (ii) effective and conducive coastal governance; (iii) healthy and productive coastal fisheries; and (iv) vibrant, healthy, wealthy and responsible people. In addition, the Kiribati Fisheries (Conservation and Management of Coastal Marine Resources) Regulation 2019 now provides the framework for improved coastal fisheries management to increase climate resilience and ensure long-term viability of coastal fisheries resources. Going forward, to support increased sustainable fisheries production, complementary efforts in capacity building and shore-based climate-resilient infrastructure development along the cold chain will be required.

Kiribati Seafood Safety

19. Kiribati faces several environmental challenges adversely affecting the health of its coastal fisheries. Key challenges include depletion of coastal fisheries resources and increasing waste and pollution in lagoons and coastal areas. These challenges are most evident in the heavily populated urban centers of Betio, South Tarawa and Kiritimati. The main types of waste and pollutants affecting the health of Kiribati's coastal fisheries are mismanaged solid waste and sewage discharge as well as runoff from port areas. Increasing solid waste, sewage and liquid waste discharges overwhelm the capacity of existing disposal and management systems and threaten lagoon ecosystems. The Kiribati Integrated Environment Policy (2012) confirms that the National Marine Pollution Advisory Committee prepared a national marine spill contingency plan to address discharge of oils, chemicals and hazardous and noxious materials into the marine environment. However, lack of integrated waste management of these pollutants is a key threat to the marine environments of Kiribati and the health of I-Kiribati that consume fish from these areas. Further attention to the impacts of pollution, from all sources, on the health of coastal fisheries and the ecosystems upon which they depend, is essential to ensuring the long-term viability of these resources and the health of the I-Kiribati. By reducing stressors such as pollution on coastal fisheries and related natural resources is an important adaptive measure to increase climate resilience of communities whose livelihoods depend on these natural resources.

20. Improved data on the human health risks associated with specific hazards present in Kiribati's seafood has raised concerns with respect to domestic and export consumption of seafood. There are many toxic substances that can contaminate Kiribati's seafood and seafood products. They include inorganic and organic substances that originate from a wide range of anthropogenic sources as well as naturally occurring sources. The Tarawa lagoon and ocean-side reef are economically strategic assets that provide a foundation for sustainable livelihoods from fishing and recreation, but which are producing well below potential due to fouling of coastal waters from sewage. The polluted coastal waters are a known vector of waterborne disease (from skin contact, accidental ingestion of the water, and consumption of seafood from polluted areas) and constitute a significant health hazard.¹⁶ It is anticipated that emerging waterborne pathogens, many of fecal origin, will likely pose additional challenges.¹⁷

¹⁶ South Tarawa Sanitation Improvement Sector Project (RRP KIR 43072) <https://www.adb.org/sites/default/files/linked-documents/43072-013-kir-oth-02.pdf>

¹⁷ World Health Organization 2003, 2004



21. Ensuring the safety and quality of seafood promotes domestic and international trade. The application of risk analysis provides the foundation for a robust food safety system. It offers governments a framework to assess, manage and communicate food safety risks. However, in Kiribati at this time, national food control systems are unable to ensure an adequate supply of safe food for domestic consumers; and, there is a need to improve the existing national seafood system to produce results that meet international standards. To adequately address this challenge, investment in capacity building and improved infrastructure to improve seafood toxicology testing and coastal fisheries pollution management are critical for Kiribati to strengthen the adaptive climate resilience of its communities and secure the safety of its seafood products consumed domestically and exported.

C. Relevance to Higher Level Objectives

- 22. The Project is aligned with the World Bank's FY17-21 Regional Partnership Framework (RPF9) for nine Pacific Island Countries (PIC9¹⁸) that outlines the strategic development program for Kiribati.** The RPF9 focuses support on fully exploiting the available economic opportunities, enhancing access to employment opportunities, protecting incomes and livelihoods, and strengthening enablers of growth and opportunities. The Project is specifically designed to support achievement of the RPF9's first objective to 'improve the management of oceanic and coastal fisheries.'
- 23. The Project reflects key elements of Government's Kiribati Vision 20.** KV20 is structured in four pillars: (i) wealth – natural, human and cultural capital; (ii) peace and security; (iii) infrastructure for development; and (iv) governance. The two crossing-cutting issues are: (i) gender, youth, vulnerable groups, equity; and (ii) environment, climate change and sustainable development. Maximizing returns from the sustainable exploitation of fisheries and marine resources is fundamental to achieving KV20. The Project invests in activities that support achievement of Pillars 1, 2 and 3 of KV20 as well as promotes gender equity and sustainable development in the fisheries sector.
- 24. The Project will contribute to implementation of the Kiribati Development Plan 2016–19 (KDP) that identifies key priorities for the medium term.** The KDP focuses on six priority areas: (i) human resource development; (ii) economic growth and poverty reduction; (iii) health; (iv) environment; (v) governance; and (vi) infrastructure. The Project specifically supports the economic growth and poverty reduction priority in that it provides for the sustainable development of the fishing industry, maximizing economic returns from marine resources and ensuring that the most vulnerable groups in the population are actively engaged and supported. KDP 2020-2023 is currently being developed.
- 25. The Project supports the Kiribati's National Fisheries Policy (2013), Integrated Environmental Policy (2012) and the forthcoming MFMRD Strategic Plan (2020-2023).** The National Fisheries Policy covers five overarching goals and strategic objectives, including to: (i) contribute to economic growth and employment through sustainable fisheries, aquaculture and marine resources development; (ii) protect and secure food security and sustainable livelihoods for I-Kiribati; (iii) ensure long-term conservation of fisheries and marine ecosystems; (iv) strengthen good governance, with a focus on building the capacity of the MFMRD and relevant sectors to implement and support fisheries management, development and monitoring, control and surveillance; and (v) build climate resilience for fisheries and marine resources in Kiribati. In addition, an Integrated Fisheries Master Plan for Kiritimati was developed for the period 2014–2017 to improve management and sustainable development of the island's fisheries. Its priority areas are coastal fisheries, offshore fisheries, aquaculture, tourism and environment. Furthermore, the Kiribati Integrated Environmental Policy recognizes that the underlying environments that support the country's offshore and coastal fisheries resources are fundamental building blocks for its sustainable development.

¹⁸ The nine Pacific island countries (PICs) covered by the RPF9 (Report no. 100997-EAP discussed by the World Bank's Board in February 2017) are Kiribati, the Republic of the Marshall Islands, Federated States of Micronesia, Republic of Nauru, Republic of Palau, Independent State of Samoa, Kingdom of Kiribati, Tuvalu, and Vanuatu.



26. **The Project is aligned with the World Bank's active support (since 2014) to the Government of Kiribati (GoK) on strengthened fisheries sector management and public financial management through a Development Policy Operation (DPO) series.** The Kiribati Economic Reform DPO series is in its sixth cycle and has the fisheries sector at its core as the largest source of Government revenue. The overarching objective of the DPO series is to: (i) Improve public financial management with respect to financial and physical assets; and, (ii) support the prospects for inclusive growth by strengthening fisheries sector management and improving access to basic services. The first pillar, on public financial management, includes actions to strengthen management of Kiribati's sovereign wealth fund, improve cash management and address weaknesses in the public investment cycle, including procurement and asset maintenance. This pillar consolidates and complements measures supported in previous series on the sovereign wealth fund, debt policy and management, and state-owned enterprise governance to improve the quality of public spending. The second pillar, on inclusive growth, includes actions to strengthen governance of fisheries, one of the few sectors with significant potential to drive growth and employment creation in Kiribati.
27. **The Project will be the eighth Project under the Pacific Islands Regional Oceanscape Program (PROP) Series of Projects (SOP).**¹⁹ The original PROP was developed in 2013 as a SOP to be implemented in three phases, each six-years in duration. Phase I began in 2014 and is under implementation in Federated States of Micronesia, Republic of Marshall Islands, Solomon Islands, Tuvalu and the Forum Fisheries Agency (FFA). Phase I projects share a project development objective (PDO) and Results Framework and reflect the same design drawing on a pre-set menu of agreed investment activities. The PDO of Phase I projects is to strengthen the shared management of selected Pacific Island oceanic and coastal fisheries, and the critical habitats upon which they depend. All four countries are members of the PNA and operate the VDS for their tuna purse seine fisheries and two long line tuna fisheries. Phase II includes projects in Kiribati, Tonga and Samoa. These projects represent an evolution from the original architecture of the PROP SOP by applying the myriad lessons learned from implementation of Phase I. Phase II projects are aligned with the overarching regional objectives of the original SOP and contribute to the regional goals of strengthening sustainable oceanic and coastal fisheries management.

¹⁹ The first phase includes a series of projects for FFA, FSM, RMI, Solomon Islands and Tuvalu. The second phase include Samoa and Tonga. Kiribati PROP will be the eighth project in the programmatic approach and the third project under Phase II of PROP.



II. PROJECT DESCRIPTION

A. Project Development Objective

28. **PDO Statement:** To improve management of selected fisheries and seafood safety in the Recipient's territory.

29. PDO Level Indicators

| Indicator |
|--|
| Regional Indicator: Percentage of long-line fleet fishing trips under continuous monitoring coverage (generating regional benefits for PNA members). |
| Number of coastal communities participating in new and existing marine-based revenue streams as a result of project support |
| Number of community fisheries management plans endorsed by MFMRD through relevant regulations ²⁰ . |
| Number of high risk products subject to routine food safety monitoring |

B. Project Components

30. The Project is designed as a six-year, US\$19.5 million Investment Project Financing (IPF) operation as part of the PROP SOP and organized in four components. The Project will specifically invest in the following selected fisheries:

- a. **Large-Scale Oceanic Fisheries**, for the purpose of this Project, refer to fisheries for highly migratory fish stocks in the WCPO. As defined by the Western and Central Pacific Fisheries Convention, Highly Migratory Fish Stocks are "...all fish stocks of the species listed in Annex I of the 1982 United Nations Convention on the Law of the Sea (UNCLOS) occurring in the Convention Area and such other species of fish as the Commission may determine within the Convention Area, except sauries." The Project specifically provides support for more effective conservation and management of the primary target tuna stocks in the Kiribati EEZ (skipjack, yellowfin and bigeye) and associated species.
- b. **Select Coastal Fisheries** are defined in this Project as artisanal finfish and invertebrate fisheries operating within the nearshore and coastal areas of Kiribati. Artisanal fisheries are those fisheries exploited by I-Kiribati using powered or unpowered vessels less than 12m in length. Nearshore and coastal areas are defined as Kiribati's internal waters, archipelagic waters and territorial seas extending out to 12 nautical miles (NM) (Marine Zones Act 2011). The Project will focus on these species in its investments under Component 2, including, but not limited to aquarium fisheries, bonefish sport fisheries, other reef finfish and invertebrate fisheries and coastal tuna fisheries which are considered "Designated Fisheries" as defined by the Fisheries Act 2010.

²⁰ Equivalent to the corporate results indicator 'fisheries management plans implemented', but for this Project is designated as specific to community plans that are endorsed through Ministry regulations.



c. For CMM, five selected fisheries will be supported by the Project, including:

- i. The **skipjack tuna purse seine fishery as well as the yellowfin tuna and bigeye tuna longline fishery** (also part of the aforementioned large-scale oceanic fisheries) are identified for tracking CMM of the Project as there are substantive conservation and management design features in the project associated with purse seine tuna fisheries and longline tuna fisheries that involve these species. CMMs for tuna are addressed through the WCPFC, and the Project has dedicated activities that will ensure Kiribati can meet its WCPFC obligations and strengthen its national data collection and reporting systems with respect to these target species.
- ii. The **nearshore FAD fishery** which is a multi-species fishery that focuses on neritic tunas as well as tuna associated species is a third fishery for CMM development in the Project under Component 2 investments in the Gilbert Island Group.
- iii. In addition, another selected species for CMM support by the Project is **Bonefish (*Albula glossodonta*)**. This species is the primary target of sports fishers visiting Kiritimati and other remote islands in Kiribati. MFMRD has established regulations (Protection of Bonefish on Kiritimati Regulations 2008) for this fishery but implementing them has been a challenge. CMM related actions for this fishery fit well with the blue economy approach proposed for Kiritimati and with planned MCS activities for Kiritimati (under Component 1) and build on established infrastructure and services (guides, hotels, catches) in Kiritimati. The Project will invest in tracking, post release mortality, identifying spawning times and migration routes, working with sport fishing guides to share information on catches and sizes to improve tracking of this particular species.

31. **Component 1: Strengthening Monitoring, Control and Surveillance of Large-Scale Oceanic Fisheries (US\$6.62 million; comprised of US\$2.20 National IDA and US\$4.42 Regional IDA)**. This component will support MFMRD to strengthen management and compliance of large-scale oceanic fisheries which, in turn, will function to strengthen Kiribati's participation and contribution to the PNA VDS and meeting its obligations with WCPFC. The activities in this Component are organized in two sub-components:

32. **Sub-Component 1.1 Strengthening Monitoring, Control and Surveillance Capacity (US\$1.44 million; comprised of US\$0.48 National IDA and US\$0.96 Regional IDA)** The rapid growth of the Kiribati offshore fishing fleet has placed significant pressure on MFMRD to meet its national and regional obligations for effective MCS of fishing activities in its EEZ. This Sub-Component will finance a package of TA to strengthen Kiribati's capacity to carry out its MCS duties. TA for capacity building and training to support effective implementation of MFMRD IUU counter measures and refinements to the Legal and Policy Framework will include the following:

- a. **The Project will finance activities to strengthen the capacity of officers to implement MCS activities to improve IUU countermeasures, in compliance with international law.** Specifically, this TA will support strengthening the Recipient's capacity to implement monitoring, control and surveillance activities to improve IUU fishing countermeasures in accordance with international law, including: (i) evaluating observed and unobserved fishing trips; (ii) carrying out studies, training and capacity building activities on compliance with the Recipient's obligations under Article 73 of UNCLOS and on market state measures under international law, including implementation of the FAO Port State Measures Agreement; (iii) reviewing, updating and publishing a national plan of action on illegal, unreported and unregulated fishing; and, (iv) reviewing the Recipient's legislation and



procedures, drafting and submitting updates of legislation for approval, and drafting and adopting updated procedures, for compatibility with Article 73 of UNCLOS.

- b. **The Project will finance legal and policy work to support EM roll-out to the longline fleet**, including through developing: (i) a legal and policy framework for the use of the electronic monitoring and reporting systems provided for under Sub-Component 1.2(b) of the Project, including both regulatory and procedural reform; (ii) clear and transparent criteria for the application of reporting requirements and a template of the memorandum of understanding to be entered into with vessel operators for installation and operation of such systems; (iii) plans for sustaining the electronic monitoring and reporting systems beyond the life of the Project; and (iv) arrangements to integrate external information and communications technology support.
- 33. Sub-Component 1.2 Investing in Improved MCS Enforcement (US\$5.18 million; comprised of US\$1.72 National IDA and US\$3.46 Regional IDA)** Implementation of the activities indicated under this Sub-Component will be conditional upon the Kiribati fisheries laws and regulations being consistent with provisions of Article 73 of UNCLOS, which will be supported through the set of Project-financed activities indicated in Sub-Component 1.1. Once Kiribati is found to be fully compliant with the conditions set out in Article 73 of UNCLOS, the Project will invest in the following activities:
- a. **Establishment of fit-for-purpose MCS facilities in Betio and Kiritimati.** The Project will finance designing, constructing and equipping two fisheries monitoring, control and surveillance facilities, one in Betio and the other in Kiritimati.
 - b. **EM/ER for vessels operating in Kiribati's EEZ.** The Project will finance installing, operating and maintaining electronic fish catch monitoring and reporting systems in domestic Longline Vessels whose operators have signed a memorandum of understanding based on the template referred to in Sub-Component 1.1(b)(ii) and training MFMRD officers in respect of such systems.
 - c. **Enhancing the regional observer program to facilitate boarding inspections of fishing vessels in Betio and Kiritimati.** To expedite boarding and inspections in the two designated transshipment ports, the Project will finance providing tender craft to facilitate boarding inspections of fishing vessels, one in Betio and the other in Kiritimati.
- 34. Component 2: Diversifying Marine-Based Revenue Streams for Outer Island Coastal Communities (US\$5.97 million).** The Kiribati Fisheries (Conservation and Management of Coastal Marine Resources) Regulation 2019 provides the framework for improved coastal fisheries management and community participation in Kiribati. This Component aims to strengthen coastal community participation in new and existing sustainable marine-based revenue streams in the Gilbert and Line Islands in support of the *Kiribati Fisheries (Conservation and Management of Coastal Marine Resources) Regulation 2019* by:
- a. **Securing the ocean economy of Kiritimati.** To support development of Kiritimati's ocean economy, this Component will include: (i) developing a Kiritimati ocean resources master plan; (ii) developing a Kiritimati sport fishing management plan; and (iii) supporting implementation of the Kiritimati Island Marine Aquarium Trade Management Plan 2017; including, in each case, identifying viable options for generating long-term and meaningful employment of women and youth in Kiritimati's ocean economy.



- b. **Strengthening evidence-based decision-making and compliance for coastal fisheries management.** The Project will carry out capacity building activities to: (i) strengthen national coastal resource licensing systems; (ii) enhance community participation in coastal resource management; and, (iii) increase the capacity and operational effectiveness of MFMRD's Coastal Fisheries Division including providing equipment and software for electronic reporting.
 - c. **Accelerating development and diversification of sustainable supply chains in the Gilbert Islands.** This activity will provide a package of technical assistance and capacity building activities to identify and catalyze sustainable fisheries supply chains in selected outer islands within the Gilbert Islands, selected from a menu of potential activities which includes: (i) establishing a marine spatial plan for Tarawa; (ii) identifying up to four candidate outer islands for selection in accordance with the POM and preparing and implementing sustainable supply chain development plans for such selected outer islands in accordance with the *Fisheries (Conservation and Management of Coastal Marine Resources) Regulations 2019*; and, (iii) providing training and capacity support to catalyze development of sustainable supply chains in accordance with those plans, including providing relevant materials and facilities, and through targeted conservation and management measures in the Nearshore FAD Fishery.
 - d. **Accelerating development and diversification of sustainable supply chains within the Line Islands.** To facilitate development of the small-scale fisheries sector in the Line Islands, the Project will carry out studies to evaluate economic viability of small-scale fisheries supply chains within the Line Islands and barriers to such viability, including a needs assessment and costing exercise for a small-scale fisheries development and production center to be operated by Central Pacific Producers Limited.
35. **Component 3: Improving Seafood Toxicology and Safety Measures in Selected Fisheries (US\$4.97 million).** This Component will finance a core set of TA and civil works designed to reduce the risk of contaminated seafood and seafood products from entering domestic and international markets. The five activities financed under this Component include:
- a. **Development of a pollution and seafood toxin assessment and ecosystem management plans for Tarawa lagoon and coastal fisheries, including studies to identify the primary affected fish species and the sources of toxins, and implementation by MFRMD of certain actions under those plans.** The Project will develop a pollution and seafood toxin assessment and ecosystem management plans for Tarawa Lagoon and coastal ecosystems in Tarawa and Kiritimati, including studies to identify the primary affected fish species and the sources of toxins, and implementing activities identified in such management plans that are within MFMRD's remit.
 - b. **Seafood toxicology training and capacity building program.** This activity will finance developing and carrying out a training and capacity building program for MFMRD technical staff working on seafood toxicology and coastal fisheries seafood safety, including: (i) assessing the capacity needs of such staff to operate the MFMRD laboratories and to implement seafood safety schemes; and (ii) designing and carrying out a capacity building and training program to meet the assessed capacity needs.
 - c. **Design, Construction and Outfitting of the two MFMRD laboratories on seafood toxicology and coastal fisheries research within the centralized Kiribati One Health Support Institute (KOHSI) to be located in Betio²¹.** The Project will: (i) carrying out a feasibility study for designing and constructing two MFMRD laboratories on seafood

²¹ Cabinet approved centralized testing and biosecurity facility for Kiribati.



toxicology and coastal fisheries research; and, (ii) if determined to be feasible and following partial implementation of the training and capacity building program under Component 3(b) of the Project, designing, constructing and equipping the MFMRD laboratories.

- d. **Improved Seafood Safety Legal and Regulatory Framework.** This activity will enhance the Recipient's seafood safety legal and regulatory framework including by drafting: (i) a seafood safety policy; (ii) amendments to relevant fisheries and food safety legislation to incorporate seafood safety measures; and (iii) legislation to support implementation of the seafood safety scheme.
 - e. **Development of a Kiribati Seafood Safety Scheme.** The Project will develop a national seafood safety scheme for selected fish and shellfish species consumed domestically or exported, including: (i) designing and carrying out risk assessments; (ii) developing guidance and advisory materials; (iii) costing and developing a business model for operation of the seafood safety scheme; (iv) developing promotional and awareness raising materials; (v) developing a staffing structure and work program for operation of the seafood safety scheme; and, (vi) developing protocols and procedures for new MFMRD laboratories.
- 36. Component 4: Delivering Effective Project Management (US\$1.94 million; comprised of US\$1.06 million National IDA and US\$0.88 million Regional IDA).** This Component will provide operational and technical assistance to the Project Management Unit and Ministry of Finance and Economic Development on Project management and implementation, including planning, reporting and auditing.

Strategic Alignment

- 37. Citizen Engagement:** Citizen engagement is a key feature of this Project. The Stakeholder Engagement Plan (SEP), which forms part of the Environmental and Social Management Framework (ESMF), was designed to identify methods for actively engaging Project stakeholders during implementation. It will be used to ensure continuous citizen engagement and consultations on the Project's activities. The SEP provides details on how to enable women, youth and other vulnerable groups to participate and engage in Project activities. Stakeholder engagement will involve a hands-on approach to the establishment of consultative fora, developing terms of reference and meeting procedures, organizing meetings, reporting on outcomes, and maintaining records about Project activities. The SEP will be updated as and when specific activities are decided. MFMRD is responsible for updating and implementing the SEP and will ensure Project stakeholders are proactively engaged throughout implementation using culturally appropriate consultation techniques including: correspondence (telephone, email), one-on-one meetings, formal workshops, village council meetings, focus group meetings, MFMRD communication and outreach program, direct communication with affected persons and project flyers, signs and posters.
38. During implementation, consultation methods will be designed in consideration of the different sociocultural norms that inhibit participation and input into decision-making from vulnerable groups, particularly women. Engagement of communities and interested parties will be a key approach to ensuring that there is support for the Project and the Project meets the needs of the end users, with appropriate mitigation in place. Where possible, stakeholder engagement will utilize engagement structures within the national system (e.g., Island Council meetings). Ongoing stakeholder engagement will include special outreach efforts to vulnerable groups such as women, elderly and disabled persons so that the process is socially inclusive, and a range of stakeholder views and perspectives are represented. Stakeholder engagement methods will include: (i) using existing advisory panels to collaborate on stakeholder liaison efforts during implementation; (ii) initiatives to empower women in fisheries decision making processes such as inclusion on Island



Council committees; (iii) safeguard consultations, as required with particular regard for vulnerable groups; (iv) provide information to commercial users through annual reports; (v) dialogue with other Ministries to identify areas for collaboration on Project activities; (vi) notices/posters/brochures posted and documents made available to the public in suitable locations close to any project sites (e.g. school offices, churches); and, (vii) MFMRD will conduct a beneficiary satisfaction survey after each community fisheries management plan is endorsed to ensure proactive citizen engagement.

39. **Climate Change and Disaster Risk Screening:** The Project has been screened for short and long-term climate change and disaster risks. As described in the Country Context, Kiribati is one of the most vulnerable countries in the world to climate change-induced risks and extreme weather events. Overall, the offshore and coastal fisheries sector is highly exposed and sensitive to climate change-induced risks. In addition, non-climate stressors such as over-fishing and pollution can result in fish stocks becoming more vulnerable to climate change by reducing the ability of stocks to recover. Given Kiribati's reliance on the fisheries sector, climate impacts on availability, stability, access, and utilization of fish stocks will have significant implications at the national level. For coastal fisheries, Project investments to reduce fishing pressure on reef fisheries by migrating effort to near-shore FADs and investments in coastal pollution reduction measures, together introduce adaptive measures by reducing the impacts of these stressors to coastal fisheries which in turn will strengthen community resilience to climate change and contribute to securing the longer-term viability of these essential resources for I-Kiribati livelihoods.
40. Specifically, climate change is currently affecting, and will continue to disproportionately impact, PICs through rising temperatures, sea-level rise, saltwater intrusion of freshwater resources, coastal erosion, an increase in extreme weather events, altered rainfall patterns, coral reef bleaching, and ocean acidification. The quality of coral reefs as fish habitats will be degraded by ocean acidification and more frequent coral bleaching due to increased sea surface temperature. Overall, coral cover is expected to decline from 40% to 15–30% by 2035 and 10–20% by 2050 and these changes to coral reefs are expected to reduce catches of coral reef fish by 20% by 2050²². The projected declines in coral reef fisheries production would harm food security and livelihoods in Kiribati.
41. In Kiribati, rapid population growth and over-fishing is widening the gap between the fish available from coral reefs and the fish needed for good nutrition. A decrease in the productivity of coral reef fisheries due to ocean acidification will increase this gap. Given the important role of fisheries in meeting Kiribati's nutrition needs and supporting livelihoods, adapting to climate change will require moving coastal fishing activities offshore. Practical adaptation measures supported by this Project that aim to reduce dependence of communities on reef fisheries include installation of nearshore FADs under Component 2 to migrate pressure off of the reefs. Additional Project-supported actions to strengthen the country's adaptation to climate change, include: (i) reducing coastal pollution under Component 3 to decrease additional stressors on coral reefs and related ecosystems and the coastal fisheries they support; (ii) promoting community-based fisheries management to reduce overfishing and optimize coastal fisheries production; and, (iv) supporting robust monitoring systems to measure changes in the productivity of coastal fisheries, and the impacts of ocean acidification, coastal zone development and overfishing, on coastal fisheries resources. In addition, Project investments in developing and diversifying Kiritimati's blue economy revenue streams will support further adaptation efforts since coastal fisheries in Kiritimati are threatened by the aforementioned impacts of climate change.
42. In terms of offshore fisheries, recent modeling²³ of projected changes to the biomass of tuna in the EEZs of PICs indicates

²² The Pacific Community Policy Brief #24 on Pacific Island Fisheries and Climate Change (24/2014)

²³ SPC Policy Brief # 32



that continued high greenhouse gas (GHG) emissions are likely to alter distribution of skipjack and yellowfin tuna. Both species are expected to shift progressively east by 2050 resulting in countries east of 170° East having an increased abundance of tuna in their EEZs (Table 2) representing an opportunity for generating increased tuna license revenues. This projected shift will provide Kiribati with a significant opportunity to derive even greater revenues from the resource, provided resource management capacity is strengthened. This will be critically important to counterbalance the significant adverse climate-related impacts Kiribati will confront in terms of exhaustion of its freshwater lens rendering the country uninhabitable. By ensuring the appropriate fisheries management capacity is developed, Kiribati can secure the long-term revenue generated from this increase in tuna catch in order to continue generating significant fisheries revenue for the country as well as securing the necessary seafood for domestic consumption and export to other Pacific Island nations given their projected increase in demand for fresh fish in the near to medium-term.

Table 2: Tuna license fees earned by 10 Pacific Island Countries in 2016, projected changes in license fees and total government revenue by 2050 due to redistribution of tuna

| PICT | Tuna licence revenue 2016 (USD million) | Change (%) in combined biomass of SKJ, YFT & BET tuna by 2050 | Tuna licence revenue 2050 (USD million) | Change from 2016 to 2050 | |
|----------------------|---|---|---|------------------------------------|-------------------------|
| | | | | Tuna licence revenue (USD million) | Total gov't revenue (%) |
| West of 170°E | | | | | |
| PNG | 128.8 | -37 | 81.1 | -47.7 | -1.8 |
| FSM | 63.2 | -26 | 46.8 | -16.4 | -14.6 |
| Palau | 6.8 | -24 | 5.2 | -1.6 | -2.1 |
| Marshall Islands | 29.2 | -15 | 24.8 | -4.4 | -9.0 |
| Solomon Islands | 41.6 | -15 | 35.4 | -6.2 | -1.5 |
| Nauru | 27.8 | -9 | 25.3 | -2.5 | -2.5 |
| East of 170°E | | | | | |
| Tuvalu | 23.4 | -9 | 21.3 | -2.1 | -5.6 |
| Tokelau | 13.3 | -8 | 12.2 | -1.1 | -7.8 |
| Kiribati | 118.3 | 15 | 136.0 | +17.7 | +9.9 |
| Cook Islands | 12.8 | 18 | 15.1 | +2.3 | +2.0 |
| Total | 465.2 | | 403.2 | 62.0 | |

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43. The Project includes actions to enhance the sustainability of fisheries as well as strengthen coastal and marine pollution management capacity. In turn, these actions will help lessen the impacts of climate change by building resilience to external shocks. Specifically, Component 1 will enhance the sustainability of the large-scale oceanic fisheries, including strengthening monitoring and reporting systems, and management and compliance through improving data gathering and information systems and the operations of the national observer program. Component 2 focuses on generating sustainable marine-based revenue for outer-island coastal communities. This includes strengthening governance and community-based management, and diversification and development of sustainable fisheries supply chains. These activities will help to enhance management and longer-term viability of the sector. In addition, diversification of livelihoods and development of sustainable supply chain livelihoods will enable coastal communities in the outer islands to develop alternative livelihood strategies and enhance their resilience to future climate stresses. Component 3 seeks to reduce pollution of coastal environments, including development of a toxin assessment and management plan that will identify sources of pollution and means for reducing discharge of pollutants into lagoons and coastal ecosystems.



Such measures will help reduce exposure of the sector to a key non-climate stressor and build resilience of the sector to additional external shocks including climate change.

44. **Nutrition²⁴:** Seafood is a key source of nutrition for the I-Kiribati, accounting for three-quarters of animal protein in the national diet. Seafood is also a popular and desired food and, in many cases, is the largest component of household meals. The level of seafood consumption in Kiribati is one of the highest in the world, with estimates ranging from 72 to over 200 kg annually per capita over the past decade. In less-populated centers, supplies from subsistence and small artisanal fishing activities are normally sufficient to meet demand. But, in urban areas, particularly Tarawa, shortfalls in supply occur. In Tarawa, there is now a growing trend towards fish being replaced by cheap, low-grade imported forms of protein. Canned fish imports are about 380 mt annually equivalent in food value to 760 mt of whole fish. Kiribati is one of the Pacific countries with a triple burden of malnutrition. Kiribati is off course to meet global targets for anemia in females of reproductive age, diabetes, and obesity (26.1 percent of females of reproductive age have anemia and 22.6 percent of adult females and 22 percent of males have diabetes, and 50.4 percent of females and 41.6 percent of males have obesity). Non-communicable diseases (NCDs) in Kiribati accounted for an estimated 68 percent of all mortality in 2008. The most prevalent NCDs in Kiribati are cardiovascular diseases, which accounted for 23 percent of total deaths across all age groups in 2008. Non-communicable variants of respiratory diseases, cancers and diabetes contributed four percent, five percent and eight percent to total mortality respectively (2008). The minimum diet diversity is only about 27 percent.²⁵ The food system of Kiribati relies heavily on imported, non-perishable food items that are largely non-nutritious, yet highly accessible and affordable. In both urban and rural areas, processed foods such as rice, bread, noodles, and tinned meats are available throughout the year. Fruits, vegetables and fish are key food groups that need to be made readily available and affordable in order to be consumed by every household member, including nutritionally vulnerable groups. The Project will support Kiribati in this effort by making healthy, fresh fish more readily available for domestic consumption.
45. **Gender:** The fishery sector represents an area of economic and employment opportunity for women, however, gender differentiation of work is evident in the sector. Women tend to be actively involved in fish processing, small-scale sale and onshore managerial roles, but are excluded from technical positions such as offshore monitoring, lab safety and research. Women's labor force participation rate in Kiribati is only 33.5 percent employed in 2015 compared to 53 percent of men (World Bank data). Their underrepresentation in these positions is due to a lack of technical training and knowledge according to an assessment carried out as part of project preparation. Women also face structural barriers to participation in fishery supply chains due to reduced access to land, decision-making fora and legal services, as well as lower financial literacy. This has resulted in lower participation of women in higher paid positions in the fisheries value chains, such as inter-island traders and small business managers. Fisheries employment information, based on the Kiribati 2010 census, is presented in Table 3 and illustrates that men hold the vast majority of jobs across all categories in the sector (i.e., excluding offshore fisheries and including coastal fishers and traders and onshore jobs, men hold 92 percent of all positions and women 8 percent).
46. The Project will address this gap in women's representation in technical, onshore positions through the following interventions: (i) targeted training of women to analyze the longline vessel EM/ER data and operations of the two new MCS centers; (ii) targeted training to women to become accredited lab technicians for both the seafood toxicology and coastal fisheries research lab modules under KOHSI; and, (iii) establishment of a recruitment and hiring quota of 50 percent women in MCS and lab safety positions. These activities are expected to increase the percentage of women

²⁴ Sources: UNICEF global databases Infant and Young Child Feeding, UNICEF/WHO/World Bank Group: Joint child malnutrition estimates, UNICEF/WHO Low birthweight estimates, NCD Risk Factor Collaboration, WHO Global Health Observatory. Notes: Data on the adult indicators are based on modelled estimates
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employed in fisheries from 8percent to 25 percent. The Project will address the second gap by targeting women with added financial literacy and technical training to address the barrier of access to finance and credit. The literacy and technical training will enable women to actively engage in the development and diversification of sustainable fisheries supply chains in the Gilbert and Line Islands. These activities will ensure that women form upwards of 25 percent of employees within sustainable supply chains developed through the Project. Through the PMU, the Project's Gender Officer will track progress with achieving these targets during implementation.

Table 3: Fisheries employment information by sex, age, and job category (2010)

| | Male | | | | TOTAL MEN | Female | | | | TOTAL WOMEN |
|-------------------------|-------|-------|-------|-----|--------------|--------|-------|-------|-----|----------------|
| | 15-24 | 25-34 | 35-49 | 50+ | | 15-24 | 25-34 | 35-49 | 50+ | |
| Age → | | | | | | | | | | |
| Job category ↓ | | | | | | | | | | |
| Fishing guides | 3 | 4 | 4 | 3 | 14 | 0 | 0 | 0 | 0 | 0 |
| Seaweed farmers | 22 | 18 | 29 | 11 | 80 | 16 | 9 | 15 | 6 | 46 |
| Coastal fishers | 707 | 715 | 787 | 362 | 2571 | 44 | 34 | 58 | 23 | 159 |
| Other fisheries workers | 32 | 43 | 27 | 12 | 114 | 7 | 11 | 16 | 11 | 45 |
| Fishery assistants | 5 | 6 | 6 | 2 | 19 | 0 | 3 | 5 | 0 | 8 |
| All categories | 769 | 786 | 853 | 390 | 2798 | 67 | 57 | 94 | 40 | 258 |

Source: Kiribati 2010 Census

47. Maximizing Finance for Development: Fisheries are Kiribati's main natural resource and economic driver and there is strong rationale for public sector support of the sector. Fisheries is one of the priority sectors to stimulate economic growth and development during the life span of the KV20. However, participation of communities in the sector, through national and global value chains, is confounded by limited domestic and international infrastructure connectivity to facilitate efficient and reliable transport of Kiribati fish to market. In this regard, Government acknowledges the limited participation of local fishermen and aspires to improve local participation and maximize socio-economic benefits from the sector. Accordingly, KV20 aims to implement policy measures aimed at increasing investment in value-added products and maximizing returns from sustainable fisheries and marine resources. The vision is to increase fisheries and marine resource revenue from US\$107 million to US\$158 million annually.²⁶ The Project directly supports the Kiribati vision for value adding in the sector and broadening the number of communities that benefit from and actively participate in fish production and associated wealth generation.

48. The Project supports development of Kiribati's fisheries sector along a sustainable pathway that promotes private sector investment in areas with the highest potential returns. Components 1, 2 and 3 provide targeted support in developing effective policy and regulatory support for scaled-up private sector development in the sector, particularly for industrial tuna and domestically-traded coastal fisheries resources. Likewise, for selected fisheries, comprehensive legal and

²⁶ Kiribati 20 Year Vision 2016-2036.



regulatory reviews will help improve the business environment. In addition, the fisheries infrastructure supported by the Project will help strengthen the value-chain for selected fisheries.

49. The industrial oceanic fisheries are where much of the country's revenue is generated and which, through the PNA VDS, has allowed Kiribati to more effectively tap its oceanic fisheries. Fishing revenue now provides about three-quarters of total domestic fiscal revenue and reached US\$121.8 million dollars in 2016. Component 1 focuses on capturing "lost" revenues in the industrial fisheries sector by reducing the risks of IUU fishing. FFA estimates IUU fishing in the Pacific is around US\$616 million for all tuna fisheries of which the tropical longline fisheries accounts for US\$275 million and purse seine fleets US\$227 million. Based on Project investments, which substantially increase monitoring of the longline fleet and increases shore-based MCS capacity for vessel boarding, transshipment and risk assessments, the level of IUU fishing in Kiribati entering international markets can be reduced by at least one-third (or approximately US\$20 million). This has both national (retained fish wealth) and regional (more effective management) benefits for skipjack, yellowfin and bigeye resources.
50. At the coastal level, recent data²⁷ suggest that there is a declining trend of the coastal fisheries contribution to food security.²⁸ At the same time, the health of Tarawa lagoon is both declining and being depleted of important fish resources. And, while Government sees an opportunity to increase the supply of fish from the outer islands, the lack of connectivity and accessibility to the outer islands is a significant constraint. Notwithstanding, Government is committed to increasing participation of fishing communities and supporting development of fisheries value chains particularly in the outer islands as a means of enhancing domestic trade. Component 2 will support this aspiration through capacity building and technical assistance in production and supply of high-quality safe fish and fisheries products to urban centers from up to four outer island sites. Increased production will come from nearshore ocean pelagic fish such as tuna²⁹ harvested from nearshore FADs.³⁰ Taking this approach has the potential benefit of alleviating fishing pressure on shallow water food fish and facilitating rebuilding of lagoon stocks. Component 2 will invest in a supply chain approach, identifying strengths, weaknesses and opportunities to supply high quality seafood products into Tarawa at reasonable prices.
51. Component 2 (gap analysis of barriers to market access) and Component 3 (seafood safety risk assessments) are designed to address the main barriers to Kiribati seafood products entering export markets. Seafood is highly perishable and likely to carry health risks if harvesting, production and processing conditions are not well managed. General food safety principles also contribute to higher quality and longer shelf life of seafood products. While the costs associated with seafood related illnesses (food poisoning) have never been estimated in Kiribati, Australia has reported that one incident of seafood poisoning alone cost the New South Wales industry AU\$30 million.³¹ Ciguatoxins are known to be present in some Kiribati fish and anecdotal evidence suggests scombroid poisoning is common due to poor fish handling practices. Ensuring high standards for quality and safety is also good economics, minimizing losses that result from spoilage, damage to trade and from illness among consumers. Accordingly, the sector will need to ensure that fish handling, processing and transportation facilities meet requisite standards. Adequate training of both industry and control authority staff must be provided by support institutions, and channels for feedback from consumers established. Component 2 supply chains will identify domestic and international market opportunities while Component 3 will support development of risk assessments for specific seafood products and compliance with seafood safety market import requirements. Since the seafood products and markets will only be identified during implementation, it is speculative and premature to assign monetary values to product development opportunities for seafood supply chain development.

27 Govan 2019. Ocean Governance – Our Sea of Islands' in Katafona, R. (ed.), A Sustainable Future for Small States: Pacific 2050

28 Gillett, R. 2016. Fisheries in the Economies of Pacific Island Countries and Territories.

29 WCPFC reports that all three species of neritic tuna (skipjack, yellowfin and bigeye) are not overfished.

30 Nearshore FADs operated and managed by fishing communities are distinct from drifting FADs used in the industrial purse seine fishery.

31 1997, an outbreak of Hepatitis A virus (HAV) from Wallis Lake oysters affected 467 people with one death.

**C. Project Beneficiaries**

52. **The main project beneficiaries are the I-Kiribati dependent on the country's fisheries and marine resources**, including fishers and their households, as well as operators in industrial fisheries, seafood value chains and tourism. Among these operators, private sector enterprises engaged in large-scale oceanic fishing and export of seafood products, foreign fishing fleets, and foreign investors in fisheries, will all benefit indirectly from a more sustainable resource base and decreased risks for their investment. National and local institutions engaged in management of marine resources, including fisher associations and government entities, will also benefit from improved capacity to formulate and analyze policy and promote public-private coordination as a result of project-financed institutional development activities. Ultimately, the general population of Kiribati will benefit from a healthier marine environment and increased food safety and security. In addition, Government will receive increased revenues from a sustainable ocean economy. The Project will devote specific attention to the role of women and youth in the fisheries sector, the seafood value chains and broader ocean economy opportunities in Kiritimati. The Project will also support a gender assessment of the sector to improve gender equity and implement measures to help close the gender gaps evident across the sector.
53. **The citizens, ecosystems and economies of the other PNA countries will also benefit from the Project's investments.** The WCPO oceanic fisheries are part of a larger marine ecosystem shared by all countries in the Pacific. They are a regional public good, whose health and sustainability require action by each country, in particular PNA countries who depend heavily on the extensive tuna resources in their shared waters. As such, the investments planned under the Kiribati PROP will generate important regional benefits to the countries sharing the common marine ecosystem.

D. Results Chain

54. **Theory of Change:** The Project's design is guided by the Theory of Change presented below, which illustrates alignment of Project-financed activities necessary to achieve expected results; subsequently leading to outputs as a result of implementation and, in turn, indicating where uptake and application of outputs lead to planned outcomes.



| Component | Activities | Outputs | IR Indicators | PDO Outcomes |
|---|---|--|--|--|
| 1. Strengthening MCS of Large-Scale Oceanic Fisheries | TA for Capacity Building and Policy Reform to implement IUU counter measures | <ul style="list-style-type: none"> HR development plan Training records & qualifications Draft e-monitoring policy / legislation | <ul style="list-style-type: none"> Percentage of accredited MCS officers staffing plan realized (including percent female) Number of MCS facilities operational according to specifications Number of domestic long-line vessels using e-monitoring devices | Percentage of domestic long-line fishing trips under continuous monitoring coverage (generating regional benefits for PNA members) |
| | Establish MCS facilities in Betio and Kiritimati | <ul style="list-style-type: none"> Detailed designs 2 x facilities constructed IT, furnishings and equip. specs. Staffing realization report (condition of finance) | | |
| | Establish e-monitoring and e-reporting for longline vessels in EEZ | <ul style="list-style-type: none"> E-monitoring system procurement and installation report Annual e-monitoring data report E-reporting pilot completion report | | |
| | Boarding inspection vessels constructed | <ul style="list-style-type: none"> Vessel specifications Vessels procurement report | | |
| 2. Diversifying Marine-Based Revenue Streams for Outer Island Coastal Communities | Securing the ocean economy of Kiritimati | <ul style="list-style-type: none"> Kiritimati Ocean Resources Master Plan Kiritimati sport fishing management plan Annual Kiritimati aquarium fish stock assessment, quota and compliance report | <ul style="list-style-type: none"> Number of outer islands implementing sustainable supply chain development plans Percentage of women employed in the fisheries sector. | Number of coastal communities participating in new and existing marine-based revenue streams as a result of project support Number of community fisheries management plans endorsed by MFMRD through relevant regulations |
| | Strengthening evidence-based decision-making and compliance for coastal fisheries management | <ul style="list-style-type: none"> Technical report to strengthen license conditions and fees structure Institutional and legal gap analysis CFD human resource development plan Vessel license registry database Compliance case database Community-based management plans Outreach perception reports | | |
| | Accelerating the development and diversification of sustainable supply chains within up to four candidate Gilbert Islands | <ul style="list-style-type: none"> Tarawa MSP Rapid assessment technical reports for candidate supply chains Sustainable supply chain development strategy and roadmap for 4 outer islands Supply chain investment progress reports | | |
| | Accelerating development and diversification of sustainable supply chains within the Line Islands. | <ul style="list-style-type: none"> Report on barriers and economic viability of small-scale fisheries supply chains Needs assessment for CPPL fisheries development and production center. Impact analysis of the facility on male, female and youth employment | | |
| 3. Improving Seafood Toxicology and Safety Measures in Selected Fisheries | Develop a lagoon and coastal fisheries pollution and seafood toxin assessment and monitoring and management plan | <ul style="list-style-type: none"> Technical report on sources of pollution published Technical report on contamination impacts and risks on food safety Mitigation plan | <ul style="list-style-type: none"> Multiuse seafood toxicology and coastal fisheries lab operational Percentage of existing staff being accredited in relation to the expanded MFMRD staffing plan for the seafood safety laboratory (including percentage of which are female) Number of site-specific risk assessments for priority seafood species Schedule of analysis defined in the Kiribati Seafood Safety Scheme fulfilled | Number of high-risk products subject to routine food safety monitoring |
| | Establish a seafood toxicology training and capacity building program | <ul style="list-style-type: none"> HR needs assessment and training plan | | |
| | Design, construct and outfit a Multi-Purpose Seafood Toxicology and Coastal Fisheries Laboratory in Tarawa | <ul style="list-style-type: none"> Detailed designs IT, furnishings and equip. specs. SOPs Engineers completion report Accreditation / certification plan Staffing realization report (condition of finance) | | |
| | Improve the Seafood Safety Legal and Regulatory Framework | <ul style="list-style-type: none"> Draft seafood safety policy Draft amendment to fisheries and food laws to incorporate safety Draft legislation for Seafood Safety Scheme | | |
| | Develop a Kiribati Seafood Safety Scheme | <ul style="list-style-type: none"> Site-level risk assessments Handling practices and training Outreach campaign reports | | |
| 4. Project Management | Deliver effective project management | | <ul style="list-style-type: none"> Grievances registered related to delivery of project benefits that are addressed | |



E. Rationale for Bank Involvement and Role of Partners

55. **Rationale for Bank Involvement:** The World Bank has engaged in strengthening Kiribati's fisheries sector management, policy framework and public financial management since 2014 through the aforementioned Kiribati Economic Reform DPO series. The DPO series is in its sixth cycle and aims to improve public financial management with respect to financial and physical assets; and, support prospects for inclusive growth by strengthening fisheries sector management and improving access to basic services.
56. **The World Bank has specifically supported Government to reform management of fisheries resources and revenue, through adoption of a National Fisheries Policy in which Kiribati committed to implement the VDS, and the production of a joint annual report on fisheries revenue by MFED and MFMRD (requiring the sharing of disaggregated data on fisheries revenues by MFMRD).** The World Bank also supported adoption of: (i) a Fisheries Joint Ventures Policy, establishing clear criteria to assess performance of fisheries joint ventures (through which the GoK hopes to increase domestic value-adding and employment in the sector), on an annual basis; and, (ii) the Fisheries (Amendment) Act 2017, to define IUU fishing and serious fishing violations, raise penalty provisions for serious offenses, and provide for greater transparency to combat IUU fishing. Alongside reforms to the Revenue Equalization Reserve Fund (the Kiribati sovereign wealth fund), fisheries reforms represent one of the most significant achievements of the previous DPO series. The focus of the series going forward is offshore fisheries transparency, encouraging sustainable growth of the sector and strengthened management of coastal fisheries. Results in the current DPO include that: (i) by 2021, a list of all fishing license conditions and the vessels they apply to is published not less than every six months, in accordance with the Fisheries (Amendment) Act 2017; and, (ii) transshipment revenue as a proportion of total public revenue from fisheries is increased from 4 percent in 2017 to 8 percent in 2021. This Project is designed to work in tandem with the DPO series to strengthen Kiribati's contribution to and participation in the PNA VDS and combat IUU fishing in its EEZ. This long-term World Bank engagement in both oceanic and coastal fisheries also complements work carried out by the Council of Regional Organizations in the Pacific (CROP) agencies including the Forum Fisheries Agency (FFA), the Pacific Community (SPC) and the Secretariat of the Pacific Regional Environment Programme (SPREP) as described below. More broadly, the World Bank has worked closely with FFA and SPC on Pacific oceanic fisheries management since 2014 through the FFA PROP and four national PROP projects in the original PROP Series of Projects (SOP), which together aim to strengthen oceanic and coastal fisheries management and the underlying critical ecosystems upon which they depend at the regional level. Building on the strong foundations laid by these efforts, the Kiribati PROP represents a meaningful next step in deepening engagement in Pacific fisheries policy and management.
57. **Role of Partners:** Preparation of the Project was carried out in close collaboration with a wide range of stakeholders and is designed to complement ongoing programs by development partners and avoid any and all duplication or overlap of donor-partner funded interventions. Going forward, throughout implementation, the Project Steering Committee (PSC) and Project Management Unit (PMU) will provide the due diligence and implementation management oversight to ensure that any and all potential overlap or duplication of effort with Project-financed activities in the future is eliminated and managed. The PSC and PMU will work in tandem with all Partners to ensure that there is continuous communication and collaboration on maintaining synchronicity and complementarity of Project-financed and Donor-Partner-financed activities in the sector.
58. The set of ongoing programs currently supported in the sector by development partners, include:



59. **New Zealand:** *Tobwan Waara* is a four-year program (2017-2021, NZ\$7.25 million) to implement the first stage of the Kiribati – New Zealand Ten-Year Strategy for Sustainable Fisheries Sector Development and Management signed in 2016. The goal of *Tobwan Waara* is “to maintain a healthy marine resource base and develop fisheries sustainably so current and future generations of I-Kiribati experience economic stability and food security”. This will be achieved by working together in both fisheries management and fisheries development in areas including: species and island management plans and bylaws; catch-based management for the long-line fishery, monitoring, control, surveillance and enforcement; food safety verification; and fleet management. These efforts support a comprehensive capacity building program that contributes to achieving Kiribati, Pacific and global priorities, in particular, the 2013-25 Kiribati National Fisheries Policy, key features of the KV20, the 2015 Regional Roadmap for Sustainable Pacific Fisheries, the Sustainable Development Goals on Oceans. The program is delivered by the Government of Kiribati and supported by long- and short-term technical advisory support through specialists, SPC and New Zealand’s Ministry of Primary Industries. The program will complement and coordinate with other fisheries management and development initiatives implemented in Kiribati, including PROP. The design and selection of specific activities for PROP have been identified after extensive consultation and close coordination and agreement with New Zealand to ensure duplication of investments and any potential overlaps in work programming are avoided. The PROP design, as presented herein, is fully reflective of this strong and complementary coordination with the Government of New Zealand through its Ministry of Foreign Affairs and Trade Wellington Headquarters and its Tarawa-based High Commission (e.g., the PROP Project’s safety at sea equipment complements New Zealand’s safety-at-sea training program)
60. **EU:** The Pacific-European Union Marine Partnership (PEUMP, started in 2018, Euro 45 million) Programme is implemented by SPC, FFA, SPREP and USP in partnership with the EU. PEUMP aims to improve the economic, social, and environmental impact of the fishing industry for 15 PICs by strengthening regional economic integration and sustainable management of natural resources and the environment. It takes a comprehensive approach, integrating issues related to oceanic fisheries, coastal fisheries, community development, marine conservation and capacity building under a single regional action. PEUMP focuses on six key results based on areas aligned with two regional policy frameworks: Framework for Resilient Development in the Pacific (FRDP) and the Roadmap for Sustainable Pacific Fisheries. PEUMP is also aligned with the “New Song for Coastal Fisheries – pathways to change”. The PROP scope and design is reflective of the design and rollout of PEUMP and coordination of activities has resulted in the current PROP design which avoids duplication of investments and supports complementarity of activities in the sector in support of KV20.
61. **Regional Agencies (FFA and SPC):** FFA and SPC offer ongoing technical assistance in the form of policy development, legislative reform, training and capacity development, and fisheries MCS at the regional and national level for member states. FFA and SPC operate under bilateral service agreements to provide support to MFMRD. FFA provides technical support for the tuna fishery logbook and observer programs. SPC undertakes regional stock assessments for the tuna fishery and provides a range of services for advice, training and support activities on coastal fishery science and management. FFA provides support for members attending WCPFC meetings, administers the regional vessel monitoring program, manages the regional vessel register, maintains the minimum terms and conditions for foreign vessel licensing, and supports economic analyses of tuna fisheries. FFA coordinate four regional surveillance programs each year, and provide fishery officer training courses, as well as undertake short-term consultancy projects on a range of activities. As is the case in the original PROP SOP, the Kiribati PROP scope and design is reflective of the close coordination and synchronicity needed to capture the benefits offered by FFA and SPC to their member states and the support PROP can offer at the national level in specific sector investments. This PROP reflects the core activities requested by the Government of Kiribati that account for ongoing and future TA support offered by both agencies.



62. **SPC**: SPC's Coastal Fisheries Programme's work in Kiribati, in addition to the aforementioned regional TA support, includes the following:

- a. Coastal Fisheries Governance (New Zealand funded) Supports MFMRD in formulating coastal fisheries management plans, legislation drafting and MCS training. TA involves in-country consultations, training to develop fisheries plans or draft legislation and MCS training. Going forward, the program will support MFMRD to develop operational procedures for implementing regulations including issuing infringement notices as well as develop awareness material about these regulations.
- b. Coastal Fisheries Science, Information and Awareness (PEUMP funded) Support provided under this program entails capacity enhancement for MFMRD staff in conducting water resource assessments and creel/market surveys as well as data analysis and interpretation. The program has helped upgrade MFMRD's coastal fisheries and aquaculture databases as well as establish a digital library. The program also supports preparation and dissemination of awareness raising materials on new coastal fisheries regulations.
- c. The PROP activities to be conducted in parallel to these programs will complement the expected outcomes of these TA interventions, including the MCS centers which will house the trained personnel supported by SPC's program.

63. **FAO** is supporting delivery of the following two projects in the fisheries sector in Kiribati:

- a. **Resilient Islands, Resilient Communities (Ridge-to-Reef)**: This is a five-year project (April 2018 to 2023) implemented in partnership with MELAD, MFMRD, Ministry of Internal Affairs (MIA) and Island Councils, with funding from the Global Environment Fund (GEF). The project works in four locations, Butaritari, North Tarawa, North Tabiteuea and Kiritimati with specific communities to address terrestrial and coastal community based natural resource management issues. The PROP Component 2 coastal community activities will target communities in other locations so as to complement the efforts of the Ridge-to-Reef project and expand support for similar types of investments.
- b. **Enhancing livelihoods and food security through fisheries with nearshore FADs in the Pacific**. This is a three-year project funded by Japan (June 2019 to 2022) implemented by MFMRD. The project covers seven countries, including Kiribati, focused on small-scale tuna fishery development and governance. The project supports capacity development in four areas: (i) FAD management; (ii) sea safety training (which complements the PROP Project's investment in safety at sea equipment); (iii) enhancing fisher associations; and, (iv) livelihood activities, such as value adding and sport fishing, with the focus on small scale tuna fishing. The related PROP activities will support similar activities with small scale fishers and coastal communities located in other sites to the FAO funded project to ensure that there is no duplication of effort and that similar interventions can be afforded to more fishers and communities in Kiribati.

F. Lessons Learned and Reflected in the Project Design

64. **The World Bank has extensive experience supporting development and management of fisheries worldwide. The Project design reflects lessons from analytical work and ongoing and completed operations,³² in particular**

³² Kenya Coastal Development Project; Tanzania Marine and Coastal Management Project; South West Indian Ocean Fisheries Governance and Shared Growth Project; West Africa Regional Fisheries Program; Bangladesh Sustainable Coastal and Marine Fisheries Project.



implementation of the original PROP SOP. Key lessons learned include:³³

65. **Defining achievable outcomes.** Fisheries are highly variable and therefore, interventions that have good intent frequently fail when the expected outcomes are ill defined or overly ambitious. This Project recognizes this and focuses on activities that: (i) directly strengthen Government's capacity to combat IUU in offshore fisheries with timebound and discrete deliverables clearly associated with the expected outcomes; and, (ii) make a tangible difference to marine-based revenue generation for selected outer island coastal communities through conservative and viable mechanisms. The intent of the Project is to invest in providing an enabling environment for sustained investment in Kiribati's fisheries sector and to support fisheries management actions directly and clearly in timebound, measurable and meaningful ways.
66. **Investments in seafood value chains are only sustainable with appropriate fisheries management measures in place.** Without these measures, investments run the risk of creating price signals that will increase pressure on the fisheries and lead to declining stocks, productivity, and yields for these investments. Fisheries management measures are critical to lower the risks of any investment in the sector and send a positive signal to potential investors. The Project has been designed to enable this complementarity between fisheries management measures and investments in strengthening and expanding the seafood value chains.
67. **Social change and reforms in the fisheries sector require an extended time horizon; a high degree of flexibility; continuous support for progressive capacity building; and financing to maximize impact.** This Project includes a strong focus on capacity building for key stakeholders and embeds resource management in broad-based consultative processes to build consensus and inclusion and give voice to all stakeholders. In turn, this creates further flexibility and builds the necessary ownership to maximize sustainability and impact of conservation activities. The Project is also part of the overall regional PROP SOP which provide a long-term window (three phases over 18 years) for support to the sector at a regional scale and management of shared fisheries resources.
68. **Specific lessons learned during implementation of PROP SOP Phase I have informed the design of the Phase II Tonga and Samoa Projects as well as this Project, including:**
 - a. **Stand-alone Project.** PROP was originally envisaged as a Series of Projects which included separate, but complementary, national Projects and a regional Project implemented by FFA in collaboration with other regional agencies (Pacific Islands Forum Secretariat (PIFS)/Office of the Pacific Ocean Commissioner (OPOC) and SPC). This cohort of PROP Projects shared the same PDO, component structure and results framework as well as core documents including the Project Appraisal Document and Project Operations Manual (POM). However, the intended efficiencies did not materialize during implementation in part due to lack of specificity in each Project based on the sector specific context and operating environment of each country. For these reasons, Phase II Projects have all been designed as standalone IPFs that aim to generate shared regional fisheries benefits, for both offshore and coastal fisheries, alongside the original PROP SOP Phase I Projects.
 - b. **Investment in strong project management.** The Project management support arrangements deployed at the beginning of PROP did not eventuate and, as a result, there was a need to adjust the program arrangements through the addition of technical experts to ensure gaps in expertise were filled and to build the capacity of

³³ These include SWIOFish Series of Project (SWIOFish1 and SWIOFish2), Development Policy Loans in Peru and Gabon, the West Africa Regional Fisheries Project, the Lake Victoria Environmental Management Project, the South West Indian Ocean Fisheries Project, Tanzania's Marine and Coastal Environment Management Project, the Kenya Coastal Development Project, Indonesia's Coastal Resources Management Project, and the Pacific Islands Regional Oceanscape Program.



counterpart staff. As such, Phase II Projects are all designed to invest in Project management to ensure sufficient staffing, reduce administrative burden on the implementing agency and minimize the risk of delays. All Phase II Projects will benefit from the support of national Central Services Units (CSU). In the case of Kiribati, MFED will establish the Kiribati Fiduciary Services Unit (KFSU) to provide direct support to the PMU to carry out the financial management, procurement and safeguards aspects of the Kiribati PROP.

- c. **Environmental and social risk management.** The original cohort of PROP Projects suffered from a lack of safeguards staff within the implementing agencies. In addition, environmental and resettlement safeguard requirements were sometimes outside the Government's experience. As such, core arrangements such as GRM and Environment, Health and Safety Incident reporting forms were not in place and safeguards were not proactively managed. A dedicated safeguards member will be in place with all Phase II Project teams and/or CSUs to allow for effective coordination of tasks and help with timely preparation and implementation of safeguard instruments in a consistent manner.
- d. **Monitoring and evaluation.** The original PROP cohort shared a highly complex results framework that was difficult for project personnel to track. This combined with a lack of M&E staff led to little monitoring being carried out by the implementing agencies. Phase II Projects have entirely new, standalone, clear results frameworks and will have dedicated M&E PMU members in addition to M&E support from the national CSUs.
- e. **Building on national strategies and institutions.** In some countries, PROP was not closely aligned with national priorities, leading to limited Government buy-in. This Project is founded on Government's strategic direction and investment planning for Kiribati's large-scale oceanic fisheries and has strong Government ownership. The Project is linked with regional fisheries agreements and operating frameworks such as WCPFC, PNA, FFA, SPREP and SPC.

III. IMPLEMENTATION ARRANGEMENTS

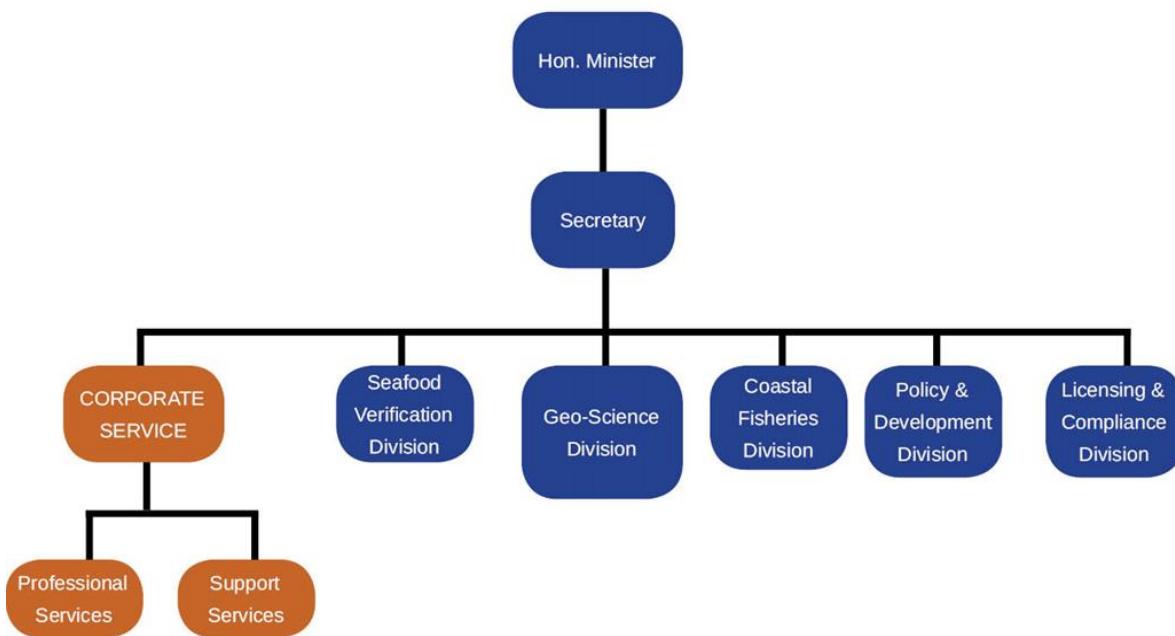
A. Institutional and Implementation Arrangements

- 69. **The Executing Agency for the Project is the MFED**, entrusted with overall responsibility for execution (and any future amendment) of the Financing Agreement. MFED is tasked with enhancing sustainable economic growth and financial stability for the welfare of the I-Kiribati through promotion of appropriate economic and financial management methods and systems, computerized accounting and control systems, tax administration, customs enforcement and provision of accurate and quality national statistical information. MFED will also host KFSU, which will provide direct support for all World Bank-funded Projects in Kiribati.
- 70. **MFMRD is the sole Implementing Agency for the Project and holds primary responsibility for coordination and implementation of the Project.** MFMRD is the ministry charged with a key role in helping Kiribati achieve a sustainable and vibrant economy for its citizens through development of fisheries and marine resources and to take a lead role in the implementation of the objectives of the Kiribati Development Plan. MFMRD is specifically responsible for sustainable development of the fisheries and marine resources of Kiribati, including development of domestic and joint ventures of tuna industry harvesting, processing and fish marketing and coordinating development of coastal marine resources. It is mandated to negotiate bilateral fishing access rights for local and foreign fishing vessels, MCS activities, management and harnessing of non-living deep-sea mineral resources. MFMRD provides avenues for scientific research on existing natural or human-made resources and represents Kiribati at international and regional fisheries conventions. MFMRD holds the core mandate within the Government to deliver on all project activities involving offshore fisheries, coastal fisheries and seafood processing, handling and export. The



MFMRD Secretary serves as the Project Director. The MFMRD structure is outlined in Figure 2.

Figure 2: MFMRD Organizational Chart



71. A Project Steering Committee (PSC) will be established for strategic oversight and coordination of the Project.

Functions will include providing overall policy guidance and decision making on issues relating to the Project, facilitating coordination and collaboration among relevant agencies, reviewing and endorsing the annual work plan and budget, and end of year reports and annual audits with support from the PMU and KFSU. The PSC will meet annually or more frequently, as deemed necessary. The PSC shall be chaired by the Secretary responsible for fisheries, and comprised of, *inter alia*, representatives of MFMRD, MFED, KFSU, MLPID, MELAD, MHMS and OAG. MFMRD's PMU will be the Secretariat for the PSC. Since collaboration with multiple agencies will be necessary to successfully implement this Project, the role of the PSC will also be to support MFMRD to coordinate annual work program planning for specific activities, as noted herein, with these agencies, in the following areas:

- MLPID:** The Ministry of Line and Phoenix Islands Development has the mandate to oversee Government interventions in the Line and Phoenix Group of islands and is tasked to lead and coordinate all sustainable developments initiated in these groups of islands. MLPID specifically manages and facilitates development activities across all sectors, including fisheries in close collaboration with MFMRD, to create employment and income generating opportunities in the Line and Phoenix Island Groups. The Ministry will play an overarching facilitator role for all MFMRD-led Project activities in Kiritimati and the wider Line Island Group. MLPID will liaise with MFMRD on implementation of specific Project-financed activities on an as needed basis. The Project is not expected to finance any direct activities led by MLPID nor extend any financial support for MLPID specific activities, beyond necessary financial support to assist MFMRD in the delivery of Project-approved activities in the Line Islands, in particular in Kiritimati. MLPID will play a leading role in supporting MFMRD to coordinate any actions across agencies active in Kiritimati such as KPL and CPPL, for example, as well as tourism operators active



in sport fishing. MLPID's institutional capacity is deemed to be limited. Pro-active engagement by MFMRD supported by MFED and the PSC will be necessary to ensure MLPID remains fully engaged in supporting implementation of MFMRD Project-financed activities in Kiritimati and other Line Island Group islands.

- b. **MELAD:** The Ministry of Environment, Lands and Agricultural Development's mandate is to safeguard the natural environment upon which life depends and to protect human health in Kiribati. MELAD is tasked with managing the use and development (in both urban and rural settings) of land resources (including for organic agriculture, water resource management and eco-tourism projects). MELAD is also responsible for water quality and environmental pollution monitoring and management measures. Through the Project, MFMRD will collaborate on seafood toxicology-related data sharing schemes, conducting joint analyses and development of management plans to ameliorate the health of domestically consumed and exported seafood products. In addition, the Competent Authority (housed in MFMRD), will hold a formal seat on the National Committee on Mercury, led by MELAD. MELAD's institutional capacity is deemed to be weak. Pro-active engagement by MFMRD supported by MFED and the PSC will be necessary to ensure MELAD remains fully engaged in supporting implementation of MFMRD Project-financed activities, in particular collaboration on coastal pollution monitoring.
 - c. **MHMS:** The Ministry of Health and Medical Services is responsible for oversight and management of health and medical services provided to all I-Kiribati. For this Project, MHMS will collaborate with MFMRD on food security measures, water quality testing and associated seafood quality control measures. Through the Project, MFMRD will establish channels of collaboration with this ministry on seafood toxicology-related data sharing schemes, conducting joint analyses and development of management plans to ameliorate the health of domestically consumed and exported seafood products. In addition, the Competent Authority (housed in MFMRD), will hold a formal seat on the National Food Standards Committee led by MHMS. MHMS's institutional capacity is deemed to be limited. Pro-active engagement by MFMRD supported by MFED and the PSC will be necessary to ensure MHMS remains fully engaged in supporting implementation of MFMRD Project-financed activities on seafood toxicology testing and monitoring.
 - d. **OAG:** The Office of the Attorney General is designated as the Central Authority with primary responsibility to receive requests for legal assistance. The general business of the Government for the conduct of which the Attorney General is responsible includes instituting criminal prosecutions; providing legal advice to Government; legal representation of Government in civil matters; legislative drafting; law reviews; and law reforms. For this Project, MFMRD will collaborate with OAG to present the new draft legislation prepared under Components 1, 2 and 3. The OAG will be represented on the PSC. The OAG is deemed to have sufficient capacity to carry out its mandate. The PSC will be instrumental in ensuring MFMRD and OAG collaborate to process draft legislation prepared with Project financing.
72. **MFMRD has established a PMU** that will be staffed with a full-time Project Manager, two full time Operations Officer (to support procurement and financial management activities and coordination with the KFSU), a full time M&E Officer, a full time Stakeholder Engagement and Safeguards Officer a full time Kiritimati Island Operations Officer and a full time Gender Officer. To support implementation, MFMRD will prepare and adopt a Kiribati PROP POM no later than two months of the effective date of the Financing Agreement. It will include institutional arrangements for day to day execution of the Project, including procurement, safeguards, financial management and M&E, as well as the process for selecting the selected outer islands within the Gilbert Islands supported under Component 2 of the Project. In addition, MFMRD will prepare the first annual work plan and budget within two months of the effective date of the Financing Agreement with subsequent annual work plans and budgets to be completed by February 1 each year the Project is active once approved by the PSC. The PMU will also prepare annual work plans and budgets for the Project as well as manage standard Project reporting, the procurement planning process and diligent application of the POM.



73. **Implementation Arrangements.** As indicated above, Project implementation tasks will be shared between the PMU and KFSU. Under the World Bank-financed Kiribati Outer Islands Transport Infrastructure Investment Project (KOITIIP – P165838) the KFSU's scope and resources will be expanded to include not only financial management and procurement, but also safeguards, M&E, and other activities, as needed. The KFSU is expected to provide support across all donor-funded projects, including PROP, as well as relevant training for Project staff. When established, the KFSU is expected to be staffed with international experts (e.g., Procurement, Safeguards and Financial Management) who will provide advice, as well as capacity building and guidance for the different PMUs and Ministries implementing donor-funded projects. The roles and responsibilities of the KFSU in relation to the PROP PMU will be defined in the KOITIIP implementation manual and PROP POM. At a minimum, KFSU will support the PROP PMU on the fiduciary aspects of Project management and implementation, including procurement, implementation of safeguards instruments, financial management, and monitoring and evaluation.

B. Results Monitoring and Evaluation Arrangements

74. Achievement of the PDO and progress made toward delivering planned outputs and expected outcomes of the Project will be measured against key indicators and targets presented in the Project's results framework. The M&E Specialist/Officers mobilized by KFSU and the PMU will be responsible for overall monitoring under close supervision of the PMU Project Manager. To ensure sustained progress is made with overall implementation and timely M&E activities, the Project will undergo a comprehensive mid-term review in the third year of implementation, as noted in the Financing Agreement.

C. Sustainability

75. **Institutional Sustainability.** Improved fisheries management is a national priority and there is strong buy-in from MFMRD, MLPID, MELAD, MHMS and MFED for this Project. A core objective of the Project is to invest in establishing a strong technical foundation in MFMRD that can be sustained post-closure. In order to achieve this, investments are targeted toward enhancing MFMRD's capacity in fisheries planning, management and enforcement through training, collaboration with FFA and Pacific Island governments through the PROP SOP.

76. For oceanic fisheries (Component 1), the focus of these efforts is on enhancing MFMRD's capacity to carry out its MCS mandate including at-sea surveillance; training in acquisition, storage and sharing of MCS data among relevant agencies; review and strengthening of fisheries legislation, including to satisfy market State requirements and international law obligations (such as under UNCLOS); enforcing license conditions; strengthening the national observer program; conducting port inspection and controls, including procedures and systems supporting transshipment monitoring; FAD management; and, EM/ER roll-out in the longline fleet.

77. For coastal fisheries (Component 2), the focus is on strengthening capacity for improved coastal fisheries governance and community-based management, including strengthening coastal resources licensing systems nationwide, enhancing community participation in coastal resources management and strengthening the capacity and operational effectiveness of MFMRD's Coastal Fisheries Division. These efforts will include a gap analysis of institutional functions and regulatory frameworks to enhance operational efficiency and inter-agency coordination; a human resource development program for CFD on coastal MCS and case management, IT packages for an online ER system, online database for coastal fisheries compliance cases and registry of fishing vessel licenses. Community awareness of coastal resources regulations and management plans will also be enhanced through building capacity in community-based fisheries management, including through participatory management planning, catch reporting and MCS. Through this process, the Project will accelerate development and endorsement of community-based fishery management plans



under the Fisheries (Conservation and Management of Coastal Marine Resources) Regulation 2019.

78. For seafood safety (Component 3), the Project supports institutional strengthening and sustainability through the seafood toxicology training and capacity building program including a capacity needs assessment of MFMRD technical staff working on seafood toxicology and coastal fisheries seafood safety and a training program to address the accredited technical lab skills and knowledge gaps identified in the needs assessment. These investments will create a core of trained civil servants operating within a strengthened institutional framework for fisheries management that will be sustainable post-closure. Once the Project closes, MFMRD and MFED will need to ensure allocation of appropriate budget to support continued operation of the two KOSHI labs for MFMRD and training for, and support to, MFMRD civil servants responsible for fisheries management, enforcement and seafood safety.
79. **Economic Sustainability.** The economic analysis assessed the cost benefit ratio (CBR), net present value (NPV) and internal rate of return (IRR) over a 20-year period (6 years of project implementation and 14 years of flow-on benefits) under three different scenarios, using a 5 percent discount rate.³⁴ The CBR for the Project is greater than one, ranging from 1.64 to 5.47. The associated IRR is 11 percent to 34 percent with NPV of US\$37.30 million. The economic analysis shows that if Project implementation is effective and efficient, Project-supported investments will bring significant economic benefits to beneficiaries. These benefits include positive impacts on public health, aesthetics of coastal areas, biodiversity and recreational use of the marine environment.
80. **Climate, Disasters, and Environmental Sustainability.** The entire Project is designed to increase the environmental sustainability and climate resilience of Kiribati's fisheries sector. As described in detail in the Strategic Alignment section above, considerations with respect to the climate-related risks Kiribati faces are mainstreamed into Project design. Training in best practice to increase climate resilience will be provided under the Project. Specifically, training will be provided on: (i) improving IUU countermeasures to ensure sufficient capacity is in place to maximize sustainable revenue from offshore fisheries as described under Sub-Component 1.1. This will function to ensure the long term viability and health of the tuna fish stocks that will increase in abundance in Kiribati's EEZ; (ii) diversifying Kiritimati's ocean economy to adapt to the adverse impacts of climate change on its coastal fisheries and natural resources base as described under Component 2; (iii) strengthening MFMRD and community coastal fisheries management capacity to improve coastal adaptation measures taken at an institutional and local level as also indicated under Component 2; and, (iv) handling and management of seafood toxicology in coastal fisheries to reduce the risk of domestic consumption of contaminated fish by identifying toxins, toxin hotspots to help reduce pollution impacts on an critically important source of fresh protein essential to ensure long term food security, nutritional outcomes and climate resilient livelihoods among the I-Kiribati as indicated under Component 3.
81. In addition to training, Project investments under Component 2 in diversifying fisheries supply chains in the Gilbert Islands (by investing in near-shore FADs to decrease fishing pressure on coastal fisheries) will help coastal communities adapt to the adverse impacts of climate change by reducing overfishing, a key stressor on the country's coastal fisheries. And, investments under Component 3 to identify and reduce biological and chemical pollution hotspots affecting the health of coastal fisheries and the ecosystems that support them, the Project will reduce the additional stressor of pollution on the country's essential coastal fisheries thereby increasing adaptation to climate change.

³⁴ Average per capita increase over a 20 year period Source: <https://www.macrotrends.net/countries/KIR/kiribati/gdp-per-capita>



IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis

82. **Technical Analysis:** The Project is designed to strengthen management of Kiribati's offshore and coastal fisheries and the underlying ecosystems upon which they depend so as to secure long term fisheries revenue, food security and improved nutritional outcomes through increased availability of fresh fish for domestic consumption and export and as a platform upon which to foster alternative livelihoods and income streams for outer island communities, with a particular focus on addressing gender equity. Project activities involve a broad range of investments, including: small to medium scale civil works, analytical and technical assistance interventions and extensive capacity building investments to strengthen the skills and knowledge of civil servants tasked with implementing MFMRD's mandate across the sector. The Project design accounts for the weak capacity environment in Kiribati and aims to find the right balance between utilizing in-county staff, identifying areas where there are opportunities for their development and areas where external expertise is needed. A key strength of the Project will be increased use of local staff. Where external expertise is required, FFA and SPC will be preferred suppliers for Components 1 and 2. Institutes and agencies that have specialized knowledge and experience with operating food inspection and testing laboratories and/or providing food inspection and testing services to PICs will be preferred suppliers for Component 3. At commencement, senior Project staff and government counterparts will visit Project sites and beneficiary communities to raise awareness about the Project and inform stakeholders about Project activities. Regular contact and engagement with communities will be a core focus of Component 2 activities. The Project will utilize social media on a regular basis to keep more remote communities apprised of actions taking place within the Project. The effectiveness of the Project's communication, networking and outreach will be a standing item for review at PSC meetings. During project implementation, careful attention will be paid to monitoring how communities are engaged.
83. Project visibility and community commitment will be strengthened by ensuring that agreements between communities and MFMRD, through the Project, are publicly signed and profiled on social media. The project recognizes that a "one size fits all" approach will not work in the outer islands, which are quite distinct from Tarawa. To address this, investments in community-based engagement will be a priority throughout the life of the Project. The harsh Kiribati climatic environment will adversely impact the life span of equipment and infrastructure procured through the Project if appropriate management practices are not adopted. This, coupled with limited technical skills, creates vulnerabilities for continuous operation and maintenance of equipment in the MCS facilities and KOHSI lab modules. As a consequence, the Project approach for procurement of equipment includes housing and storage of such equipment in secure access and humidity-controlled environments. Similarly, facility design includes use of appropriate HVAC, recognizes the importance of data security and the need for training of government officers in maintenance, operation and repairs. This not only provides adequate protection of Project assets but also invests in local labour. The approach will be used for procurement of facilities and equipment for all components.
84. Sharing information needs to be done within the country (across islands and within islands) and can avoid duplication of activities implemented by other donors. The Project design has taken into account activities of other donors active in Kiribati and will hold regular information sessions with international aid agencies. Capacity building in the offshore fisheries sector requires MFMRD officers be competent in collecting, evaluating and preparing reports on national fisheries information and, when called upon, to effectively represent their country at key international fora including high level political and technical meetings with the PNA, FFA SPC, WCPFC and FAO. Where appropriate, FFA and SPC experts will be the preferred supplier of technical expertise for capacity building of MFMRD offshore fisheries



officers. Training will also include guided learning in order to effectively represent Kiribati in technical meetings of the aforementioned agencies. Selected offshore fisheries officers will also have learning opportunities through participation in meetings with the PNA. Capacity building in seafood toxicology monitoring will include hands-on training, job placement and study tours with accredited seafood toxicology laboratories and institutes that are already providing technical support services to PICs.

85. For coastal fisheries, SPC will be a preferred supplier for in-country support to Component 2 Community-Based Fisheries Management. In addition, community fisheries managers, fishers, processors and small-scale private sector participants from remote communities and outer islands will have opportunities to share information and experiences. Of particular interest will be ways that Kiribati can increase in domestic production and consumption of tuna from nearshore FAD fisheries.
86. To address concerns regarding stock movements with climate change and to reduce risks to overfishing, the Project is investing heavily in: (i) strengthening domestic capacity to monitor and report on catches of tuna within its EEZ; (ii) IUU counter measures to reduce IUU fishing by foreign and domestic fishing boats; (iii) Investing in catch reporting and analysis to constrain fishing effort and the issuance of licenses; (iv) augmented engagement with PNA, FFA and WCPFC to strengthen fisheries conservation management across the Pacific; and, (v) making greater domestic use of tuna for food security as coastal fisheries decline. To facilitate and expand High Level Dialogue meetings with the PNA, the Project will also support activities that lead to bilateral (Kiribati-PNA) / trilateral (Kiribati – PNA – FFA) discussions between Kiribati senior government officers and the PNA Secretariat to develop a pathway to facilitate building trust and greater engagement of Kiribati in sub-regional arrangements.
87. **Economic and Financial Analysis:** A cost benefit analysis was applied to estimate potential net benefits of the Project. Net benefits are estimated by comparing long term outcomes “*without the project*” to the outcomes “*with the project*” being implemented. An economic analysis of the Project was conducted, based on a CBA to estimate the quantifiable direct benefits generated by the project. Given that benefits to be generated from Components 2 and 3 are difficult to quantify given the paucity of available data, the analysis focuses on the benefits to be generated from Component 1 activities. The main economic benefits from Component 1 are due to the likely increase in revenue from tuna fishing as a result of improved MCS that would allow Kiribati to fully benefit from future increases in tuna abundance in its EEZ. With appropriate MCS in place there is potential for fishing license revenue to increase in the future as Kiribati is expected to be a net beneficiary of increased abundance of tuna in its EEZ by 2050.
88. Sensitivity analysis shows that the Project is economically sound under different discount rates and scenarios. The full cost of the Project (all components) is supported by the quantified benefits from the Component 1 alone. The Project is also expected to generate a range of non-quantifiable (non-market) benefits from abatement of coastal pollution, overfishing and deterioration of coastal habitat. These benefits include positive impacts on public health, aesthetics of coastal areas, biodiversity and recreational use of the marine environment. However, limited data exist to value the environmental, social and recreational benefits of the Project.

B. Fiduciary

(i) Financial Management

89. A financial management assessment was carried out in accordance with the “Principles Based Financial Management Practice Manual” issued by the Board on March 1, 2010. Under World Bank Policy Investment Project Financing with



respect to projects financed by the World Bank, the Borrower and the Project implementing agencies are required to maintain financial management arrangements (including planning and budgeting, accounting, internal controls, funds flow, financial reporting, and auditing systems) acceptable to the Bank to provide reasonable assurance that the proceeds are used for the purposes for which they are granted. These arrangements are deemed acceptable if they are capable of correctly and completely recording all transactions and balances relating to the Project. In addition, such arrangements are acceptable if they can facilitate preparation of regular, timely and reliable information regarding project resources and expenditures and safeguard Project assets; and, are subject to auditing arrangements acceptable to the World Bank.

90. The PROP Project FM arrangements will be carried out by the KFSU in close partnership with the PMU. KFSU satisfy the FM requirements as stipulated in World Bank policies and directives on Investment Project Financing. KFSU is located within MFED and provides day to day Financial Management support of ADB and World Bank financed projects. The FM risk of the Project is assessed as "Substantial". The main risk is potentially insufficient resources in the PMU and/or the KFSU to manage the FM functions of the Project going forward without additional staffing in place. To mitigate this risk, MFMRD will be responsible for undertaking all planned and approved FM activities including the management of the resulting contracts. MFMRD will be supported in these endeavors by the KFSU (based on its capability and resourcing) and a PMU (which has been established and is to be resourced as needed to support implementation).
91. An annual audit of the Project financial statements will be required for the Project. The audited financial statements with accompanying audit report, and management letter must be received by the World Bank within six months of the end of the fiscal year and shall be made publicly available by the Recipient in a manner acceptable to the World Bank according to the General Conditions of IDA Grants. The Supreme Audit Institution of Kiribati are well staffed and acceptable to perform this responsibility.

(ii) Procurement

92. Procurement will be conducted in accordance with the World Bank Procurement Regulations for IPF Borrowers (July 2016 revised November 2017 and August 2018), the provisions stipulated in the Financing Agreement, and the approved procurement plan. MFMRD as the Implementing Agency under the Project will be responsible for undertaking all planned and approved procurement activities including the management of the resulting contracts. MFMRD will be supported in these endeavors by the KFSU (based on its capability and resourcing) and a PMU (which has been established and is to be resourced as needed to support implementation). Details of the procurement management arrangements, including capacity building and risk mitigation measures, are specified in Annex 1.

C. Safeguards

(i) Environmental Safeguards

93. The Project is expected to have an overall positive impact on coastal communities and natural habitats in the Gilbert and Line Islands through addressing health and safety issues associated with fishing and vessel use, capacity building regarding fisheries management and prevention of IUU fishing and investigating contamination and fish toxicology with a focus on protecting local consumer health. Investments are not expected to include activities that would generate significant risk or irreversible impacts and consequently, the Project is classified as Category B. Environmental safeguards policies triggered by the Project include OP 4.01 and 4.04 due to impacts associated with



construction activities and the potential downstream impacts of technical assistance investments. Some activities may generate moderate, site-specific and time-bound adverse impacts that can be readily mitigated through standard measures, if screened and managed in accordance with the Project Environmental and Social Management Framework (ESMF). The ESMF incorporates the requirements of the World Bank Group's Environmental, Health and Safety Guidelines as well as industry specific guidelines for fisheries management and reflects stakeholder consultations. Potential investments included in the ESMF's screening criteria that may require mitigation relate to short-term construction activities (hazardous materials, waste disposal, noise, dust, pollution and health and safety), toxicology sampling (safety at sea and biological sample disposal) and laboratory chemical storage and disposal. In addition, technical assistance investments will assist with optimization of commercial and subsistence fishing projects and, as such, will include an assessment of potential impacts from over fishing and propose the required control measures. Lagoon species will be protected through implementing better management processes and also by replacing some lagoon fishing with oceanic species caught around nearshore FADs. The impact on oceanic species due to the use of the nearshore FADs will be negligible due to the scale of the artisanal fishing.

94. The environmental monitoring included in Component 3 may identify coastal fishery products that are not suitable for consumption. Should this be the case a response plan will be developed based on the scale and nature of the contaminants. Potential response actions are outlined in the ESMF and may include TV radio campaigns to raise awareness; signage and guidance to affected communities; community engagement meetings; and fostering constructive intra-ministerial dialogue and action by Cabinet in those sectors polluting the lagoon and densely populated coastal areas. With respect to potential mitigation measures the Project and MFMRD may invest in: sourcing alternative supplies of fish to affected communities from outer islands (already part of the project design) and finance training and roll-out of a multi-ministerial emergency response task force to address major contamination issues. Safeguards for the Project will be managed by KFSU in close collaboration with the PMU. It is expected that the KFSU will provide direct implementation of all Project safeguard functions to support the PMU beginning in July 2020 and will include one international safeguards specialist and three national safeguards officers. The MFMRD PMU will include a full time Stakeholder Engagement and Safeguards Officer to assist with roll-out of the Stakeholder Engagement Plan and overall Project safeguards management.

(ii) Social Safeguards

95. Overall the Project will generate positive benefits for the community, as the activities aim to improve livelihoods in Kiribati. The Project triggers OP 4.12. With respect to land rights considerations, establishment of fit-for-purpose MCS facilities in Betio and Kiritimati, the centralized KOHSI lab modules for MFMRD and the proposed rehabilitation of processing facilities financed under Components 1, 2 3, will include civil works activities that are not expected to involve social risk issues as the land designated for all facilities is government-owned land. However, to manage any potential impacts, the ESMF incorporates a Resettlement Policy Framework (RPF) and a Stakeholder Engagement Plan (SEP). The ESMF screening process prohibits investments that will cause, or have the potential to result in, permanent and/or significantly damage to non-replicable cultural property, irreplaceable cultural relics, historical buildings and/or archaeological site or will result in involuntary land acquisition or physical displacement of affected communities. Temporary displacement may occur during civil works and this will be carefully managed by the PMU and KFSU in accordance with the ESMF, RPF and additional instruments as required through the ESMF screening process. Component 3 activities aim to improve the safety, well-being and livelihoods of I-Kiribati.



(iii) Grievance Redress Mechanisms

96. Communities and individuals who believe that they are adversely affected by a World Bank supported Project may submit complaints to existing Project-level grievance redress mechanisms or the World Bank's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the World Bank's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of World Bank non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and World Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

V. KEY RISKS

97. **The overall risk for the Kiribati PROP is rated as Substantial.** Political and Governance, Sector Strategies and Policies, Institutional Capacity for Implementation and Sustainability and Fiduciary risks are rated Substantial due to the upcoming national elections and persistent governance and transparency challenges evident in the sector. Technical Design, Environmental and Social and Stakeholder risks are deemed to present a moderate risk to the Project's ability to achieve its PDO.
98. **Political and Governance:** A Substantial risk to achievement of the PDO is the overall political and governance operating environment. This is primarily due to the limited transparency in sharing sector data between the line ministry and central ministries as well as weak oversight and absence of checks and balances in place to manage sector revenue reporting, allocation and investment. This underlying risk is now further exacerbated with the upcoming national election period. This risk will be mitigated through strengthening ongoing support offered through the DPO series and ensuring strong complementarity with Project investments, in particular those under Components 1 and 2, and achievement of DPO targets on greater transparency and governance in the fisheries sector, in particular as pertains to use of Kiribati's significant fisheries revenues.
99. **Sector Strategies and Policies:** An associated Substantial risk is sectoral. The World Bank assessed whether the Kiribati legal framework³⁵ is compliant with UNCLOS Article 73. Article 73 of UNCLOS addresses fisheries law enforcement of

³⁵ The relevant pieces of legislation reviewed include:

- *Fisheries Act 2010*
- *Fisheries (Pacific Island States Treaty with the United States of America) Act 1988*
- *Fisheries (Fish Aggregating Device Management) Regulations 2014*
- *Fisheries (Purse Seine Vessel Days Scheme) Regulations 2014*
- *Sharks Sanctuary Regulations 2015*
- *Fisheries Act (Amendment) 2015*
- *Marine Zones (Declaration) Act 2011*
- *Baselines Around the Archipelagos of Kiribati Regulations 2014*
- *Closing Lines Regulations 2014*
- *Territorial Sea Outer Limits Regulations 2014*
- *Contiguous Zones Outer Limits Regulations 2014*
- *Exclusive Economic Zones Outer Limits Regulations 2014*
- *Environment Act 1999*



coastal States over foreign fishing vessels and foreign nationals arrested for violating the fisheries laws and regulations of coastal States in their EEZs. Such compliance is a pre-requisite for World Bank financing of MCS activities in Kiribati's EEZ. Overall, the analysis found that the existing Kiribati legislation is marginally compliant with Article 73. However, it is non-compliant in the following areas: (i) Contrary to Article 73(3), the Kiribati legislation makes provision for imprisonment of foreign fishing vessels and their crew for contravention of the fisheries laws and regulations.; (ii) Contrary to Article 73(2), the Kiribati legislation does not make provision for the prompt release of seized vessels and their crew upon the payment of reasonable bond; and, (iii) the Kiribati legislation does not provide for the notification of foreign States when their vessels and nationals are arrested, as required by Article 73(3).

100. The World Bank's assessment indicates remedies to be taken, with Project support, to strengthen the related laws and permit financing of planned MCS activities under Component 1, Sub-Component 1.1. These actions will be monitored closely in Year 1 of implementation to ensure that all planned project-funded MCS activities may proceed, in particular those under Sub-Component 1.2 which are conditional on Kiribati's legislation being compatible with Article 73 of UNCLOS. With respect to the policy framework for operating EM/ER systems in the longline fleet, Project investments will support development of the necessary regulations to ensure such investments are sustainable post-closure and operate under clear guidelines and procedural framework. In addition, the Project will invest in updating the Kiribati National Plan of Action to Combat IUU to strengthen measures to proactively address and decrease incidence of IUU. Further, there is a risk that the MCS facilities, tenders and equipment financed under Component 1, Sub-Component 1.1 may be used for purposes other than enforcement of fisheries laws. The World Bank does not finance military activities or criminal law enforcement. For this reason, the Financing Agreement includes covenants preventing these activities, but allowing for joint surveillance missions for other purposes under certain conditions.

101. **Institutional Capacity for Implementation and Sustainability.** Another Substantial risk of the Project lies with the institutional capacity for implementation and sustainability given that this will be the first World Bank Project carried out by MFMRD and successful implementation will require direct and ongoing support from KFSU, currently not fully staffed. Implementation of the Project will also require coordination across multiple locations in two widely dispersed island groupings and across several key ministries, in particular MLPID as MFMRD must collaborate with MLPID on all interventions planned on Kiritimati. In addition, Component 3 activities require close collaboration with other ministries and stakeholders. To help mitigate these risks, the PSC will provide strategic cross-government oversight to ensure cross-Ministerial collaboration and coordination is occurring in an efficient manner. Furthermore, ongoing investment will be made in building stronger capacity within MFMRD to manage and implement the Project, including through additional human resources and training. And, if necessary, MFMRD will decide in Year 1 if using non-government entities for the delivery of specific activities at the community level under Component 2 would be beneficial and expedite delivery in an efficient manner

102. **Fiduciary:** Fiduciary risks are also deemed to be Substantial due to the current lack of appropriate Project support staffing in the PMU and KFSU and the first-time experience and capacity of MFMRD to implement the procurement activities for the Project. The FM and procurement-related risks identified, and associated mitigation measures agreed with MFMRD and MFED are detailed in Annex 1.

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- *PIPA Regulations 2008*
 - *Phoenix Islands Protected Area (Amendment) Regulations 2014*

**VI. RESULTS FRAMEWORK AND MONITORING****Results Framework**

COUNTRY: Kiribati

Kiribati: Pacific Islands Regional Oceanscape Program

Project Development Objectives(s)

To improve management of selected fisheries and seafood safety in the Recipient's territory.

Project Development Objective Indicators

| Indicator Name | DLI | Baseline | Intermediate Targets | | | | | End Target |
|--|-----|----------|----------------------|------|------|-------|-------|------------|
| | | | 1 | 2 | 3 | 4 | 5 | |
| Improve management of selected fisheries and safety of seafood products in the Recipient's territory | | | | | | | | |
| Regional Indicator: Percentage of long-line fleet fishing trips under continuous monitoring coverage (generating regional benefits for PNA members). (Percentage) | | 5.00 | 5.00 | 5.00 | 5.00 | 10.00 | 18.00 | 25.00 |
| Number of coastal communities participating in new and existing marine-based revenue streams as a result of project support. (Number) | | 0.00 | 0.00 | 0.00 | 2.00 | 4.00 | 6.00 | 6.00 |
| Number of community | | 0.00 | 1.00 | 2.00 | 4.00 | 6.00 | 8.00 | 8.00 |



| Indicator Name | DLI | Baseline | Intermediate Targets | | | | | End Target |
|---|------|----------|----------------------|------|------|------|------|------------|
| | | | 1 | 2 | 3 | 4 | 5 | |
| fisheries management plans endorsed by MFMRD through relevant regulations. (Number) | | | | | | | | |
| Number of high risk products subject to routine food safety monitoring. (Number) | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 5.00 | 8.00 | |

Intermediate Results Indicators by Components

| Indicator Name | DLI | Baseline | Intermediate Targets | | | | | End Target |
|---|------|----------|----------------------|-------|--------|--------|--------|------------|
| | | | 1 | 2 | 3 | 4 | 5 | |
| Strengthening MCS of Large-Scale Oceanic Fisheries | | | | | | | | |
| Number of MCS facilities operational according to specifications. (Number) | 0.00 | 0.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Number of domestic long-line vessels using e-monitoring devices. (Number) | 0.00 | 0.00 | 0.00 | 2.00 | 5.00 | 5.00 | 10.00 | |
| Percentage of accredited MCS officers staffing plan realized. (Percentage) | 0.00 | 25.00 | 25.00 | 50.00 | 100.00 | 100.00 | 100.00 | |
| Percentage of which are female (Percentage) | 0.00 | 20.00 | 50.00 | 50.00 | 50.00 | 50.00 | 50.00 | |
| Diversifying Marine-Based Revenue Streams for Outer Island Coastal Communities | | | | | | | | |
| Number of outer islands | 0.00 | 0.00 | 1.00 | 1.00 | 2.00 | 4.00 | 4.00 | |



| Indicator Name | DLI | Baseline | Intermediate Targets | | | | | End Target |
|--|------|----------|----------------------|-------|-------|--------|--------|------------|
| | | | 1 | 2 | 3 | 4 | 5 | |
| implementing sustainable supply chain development plans. (Number) | | | | | | | | |
| Percentage of women employed in the fisheries sector (Percentage) | 8.00 | | 10.00 | 15.00 | 20.00 | 20.00 | 25.00 | 25.00 |
| Percentage of beneficiaries are satisfied with the Community fisheries management plans designed in consultation and participation with the community (Percentage) | 0.00 | | 0.00 | 10.00 | 40.00 | 60.00 | 80.00 | 80.00 |
| Improving Seafood Toxicology and Safety Measures in Selected Fisheries | | | | | | | | |
| Multi-use seafood toxicology and coastal fisheries lab operational. (Yes/No) | No | | No | No | No | No | Yes | Yes |
| Percentage of existing staff being accredited in relation to the expanded MFMRD staffing plan for the seafood safety laboratory (Percentage) | 0.00 | | 0.00 | 25.00 | 50.00 | 100.00 | 100.00 | 100.00 |
| Percentage of which are female (Percentage) | 0.00 | | 0.00 | 50.00 | 50.00 | 50.00 | 50.00 | 50.00 |
| Number of site-specific risk assessments for priority seafood species. (Number) | 0.00 | | 0.00 | 0.00 | 0.00 | 4.00 | 6.00 | 10.00 |
| Schedule of analysis defined in the Kiribati Seafood Safety Scheme fulfilled. | 0.00 | | 0.00 | 0.00 | 0.00 | 20.00 | 40.00 | 75.00 |



| Indicator Name | DLI | Baseline | Intermediate Targets | | | | | End Target |
|---|-----|----------|----------------------|-------|-------|-------|-------|------------|
| | | | 1 | 2 | 3 | 4 | 5 | |
| (Percentage) | | | | | | | | |
| Effective Project Management | | | | | | | | |
| Grievances registered related to delivery of project benefits that are addressed (Percentage) | | 0.00 | 75.00 | 75.00 | 75.00 | 75.00 | 75.00 | 75.00 |

Monitoring & Evaluation Plan: PDO Indicators

| Indicator Name | Definition/Description | Frequency | Datasource | Methodology for Data Collection | Responsibility for Data Collection |
|--|--|-----------|--|---|------------------------------------|
| Regional Indicator: Percentage of long-line fleet fishing trips under continuous monitoring coverage (generating regional benefits for PNA members). | <p>“Domestic” fishing vessel means a “Kiribati fishing vessel” as defined in the Fisheries Act Amendment 2015.</p> <p>“Long-line” means fishing by vessels using long-line fishing gear as defined by ISSCFV code 7.2.0 and 7.2.1.</p> <p>“Fishing trip” means from port of departure to port of unloading as recorded in the ships log.</p> <p>Continuous monitoring means 24/7 monitoring by</p> | Annual | Observer trip reports E-Monitoring trip reports Ships logs | The project baseline is 5% coverage of the longline fleet according to WCPFC compliance reports, and is comprised of onboard observers. | MFMRD and PMU. |



| | | | | | |
|--|---|--------|------------------------------|---|----------------|
| | observers or electronic means such as cameras. | | | | |
| Number of coastal communities participating in new and existing marine-based revenue streams as a result of project support. | <p>“Coastal communities” means a village.</p> <p>“New or existing marine-based revenue stream” means a sustainable supply chain located in the Gilbert Islands or Line Islands and defined within the development strategy and roadmap developed under project sub-components 2.3 and 2.4.</p> <p>“Participating” means the community are beneficiaries of training, technical support, goods or other project support.</p> | Annual | Progress reports. | <p>Targeted supply chains and communities will be defined in rapid assessment reports and development plans compiled by consultants. MFMRD/PMU will conduct regular site visits to document project interventions made.</p> | MFMRD and PMU. |
| Number of community fisheries management plans endorsed by MFMRD through relevant regulations. | <p>“Management plan” means a coastal fisheries management plan adopted under section 5(3) of the Fisheries Act for designated coastal fishery, as defined under the Fisheries (Conservation and Management of Coastal Marine Resources) Regulations 2019.</p> <p>As defined in these</p> | Annual | Copy of endorsed regulations | <p>MFMRD will compile all endorsed management plans. MFMRD will also develop and conduct a citizen engagement satisfaction survey annually as a clear feedback mechanism as to how the project is actively engaging citizens.</p> | MFMRD and PMU. |



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|---|--|--------|---------------------|---|----------------|
| | regulations, a management plan must at least: (a) identify the community taking a leadership role in developing the plan; (b) identify the area to which the plan applies; (c) indicate the general and specific objectives of the plan; (d) specify the conservation and management measures to achieve those objectives; (e) prepare a program for the implementation, monitoring and evaluation of the plan; (f) identify arrangements for surveillance and enforcement purposes. | | | | |
| Number of high risk products subject to routine food safety monitoring. | "High risk" means identified as a priority product in the Kiribati Seafood Safety Scheme. "Food safety monitoring" means laboratory or in-situ testing for biological and/or chemical contaminants. "Product" means a raw material or processed | Annual | Monitoring reports. | MFMRD will maintain reports for each monitoring event, including date, location, team members, types of testing completed and results of testing. | MFMRD and PMU. |



| | | | | | |
|--|---|--|--|--|--|
| | product originating from a defined location. “Routine” means according to a schedule or SOP defined in the Kiribati Seafood Safety Scheme. | | | | |
|--|---|--|--|--|--|

Monitoring & Evaluation Plan: Intermediate Results Indicators

| Indicator Name | Definition/Description | Frequency | Datasource | Methodology for Data Collection | Responsibility for Data Collection |
|---|--|-----------|--------------------------------|--|------------------------------------|
| Number of MCS facilities operational according to specifications. | “MCS facilities” means fishery monitoring, control and surveillance buildings constructed, furnished and equipped by the project in Betio and Kirimati. “Specifications” means according to detailed designs prepared by the project. | Annual | Architect's completion report. | Detailed designs will be prepared by a qualified architect. MFMRD will prepare equipment and furnishing specifications. Architect will prepare project completion report. | MFMRD and PMU. |
| Number of domestic long-line vessels using e-monitoring devices. | “Domestic” fishing vessel means a “Kiribati fishing vessel” as defined in the Fisheries Act Amendment 2015. “Long-line” means fishing by vessels using long-line fishing gear as defined by ISSCFV code 7.2.0 and 7.2.1. “Using e-monitoring | Annual | E-Monitoring reports. | MFMRD will compile and archive all data from deployed e-monitoring devices. MFMRD will report the total number of domestic long-line fishing trips in a year based on submitted ship’s logs, and the | MFMRD and PMU. |



| | | | | | |
|---|---|--------|---|---|----------------|
| | <p>devices” means that the vessel has e-monitoring devices installed, has signed a service agreement, and for which 24/7 monitoring data are available during fishing trips.</p> <p>“E-monitoring devices” are cameras or equipment that provide 24/7 surveillance of fishing operations.</p> | | | total number of domestic long-line fishing trips subject to e-monitoring. | |
| Percentage of accredited MCS officers staffing plan realized. | <p>“Staffing plan” means a manifest of key roles and core competencies that will be established by project consultants.</p> <p>“MCS officers” are MFMRD fishery officers tasked with monitoring, control and surveillance functions and stationed within the new MCS facilities established by the project.</p> | Annual | MCS staffing plan. MFMRD organisational chart. MFMRD staffing roster. | An MCS staffing plan will be developed by project consultants. MFMRD will engage MCS officers as civil servants using non-project funds. | MFMRD and PMU. |
| Percentage of which are female | Proportion of MCS officers who are female. | Annual | MCS staffing plan MFMRD organisational chart MFMRD staffing roster | An MCS staffing plan will be developed by project consultants. MFMRD will engage MCS officers as civil servants using non-project funds. | MFMRD and PMU. |



| | | | | | |
|--|---|--------|--------------------------|--|----------------|
| Number of outer islands implementing sustainable supply chain development plans. | <p>"Outer islands" are islands in the Gilbert and Line Islands groups.</p> <p>"Sustainable supply chain development plans" are those developed under sub-components 2.3 and 2.4 following rapid assessments of supply chain feasibility.</p> | Annual | Progress reports. | Targeted supply chains and communities will be defined in rapid assessment reports and development plans compiled by consultants. MFMRD/PMU will conduct regular site visits to document project interventions made. | MFMRD and PMU. |
| Percentage of women employed in the fisheries sector | <p>"Employed in the Fisheries Sector" includes employment as coastal fishers, traders and in onshore jobs, in EM/ER operations in the two new MCS centers financed by the Project as well as lab technicians employed in the two MFMRD KOHSI lab modules financed by the Project and in the sustainable supply chains located in the Gilbert Islands or Line Islands and defined within the development strategy and road map developed under project sub-components 2.3 and 2.4.</p> | Annual | Site visits and surveys. | Baseline female participation is 8% as of 2010. MFMRD/ PMU will determine an updated baseline during Year 1. Supply chains will be selected by MFMRD via rapid assessments and development plans prepared by consultants in Year 1. The PMU will conduct site visits and surveys to assess number of total participants and number of female participants. | MFMRD and PMU. |



| | | | | | |
|---|--|--------|-------------------------------|---|----------------|
| | <p>“Women” means women who are employed or work within the sector as defined above.</p> <p>“Percentage” means the number of women employed of the total number of individuals employed in the sector as defined above.</p> | | | | |
| Percentage of beneficiaries are satisfied with the Community fisheries management plans designed in consultation and participation with the community | Beneficiary survey conducted after each community fisheries management plans is endorsed by MFMRD. | Annual | Beneficiaries' surveys | Satisfaction surveys | MFMRD and PMU. |
| Multi-use seafood toxicology and coastal fisheries lab operational. | <p>“Seafood toxicology and coastal fisheries lab” means laboratory buildings constructed, furnished and equipped by the project in Tarawa.</p> <p>“Operational” means according to detailed designs and specification prepared by the project.</p> | Annual | Engineer's completion report. | Detailed designs will be prepared by a qualified architect. MFMRD will prepare equipment and furnishing specifications. Architect will prepare project completion report. | MFMRD and PMU. |
| Percentage of existing staff being accredited in relation to the expanded MFMRD staffing plan for the seafood | “Staffing plan” means a manifest of key roles and core competencies that will | Annual | MCS staffing plan MFMRD | An expanded MFMRD staffing plan for the seafood safety | MFMRD and PMU. |



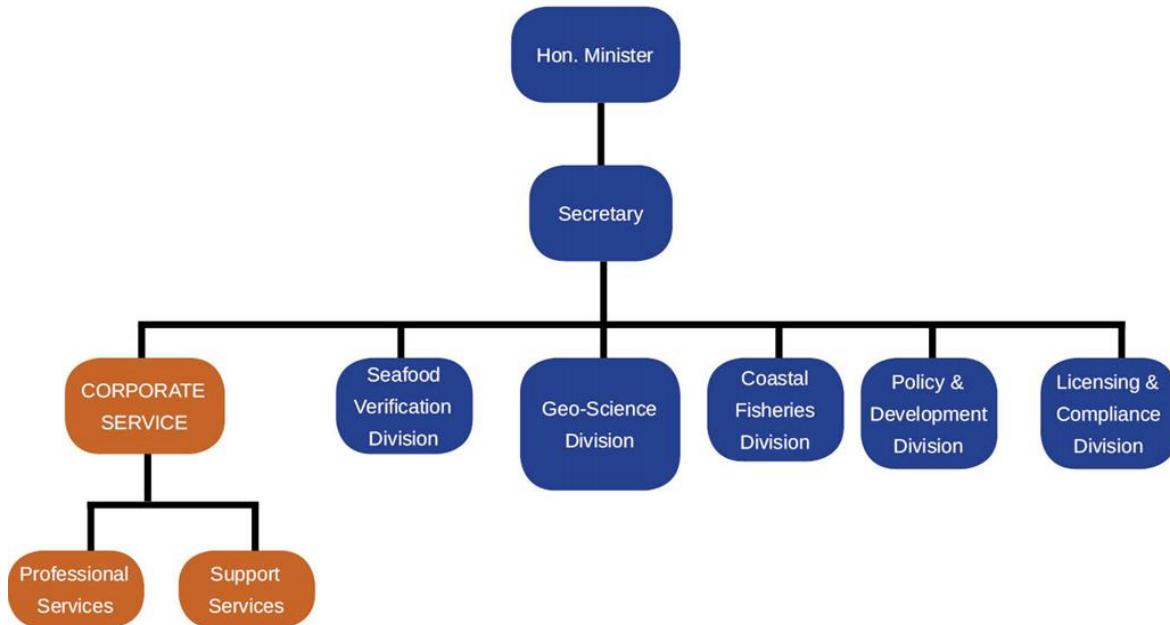
| | | | | | |
|--|---|--------|--|--|----------------|
| safety laboratory | established by project consultants. "Seafood safety laboratory" is the new Tarawa laboratory established by the project. | | organisational chart MFMRD staffing roster | laboratory will be developed by project consultants. MFMRD will engage lab technicians as civil servants using non-project funds. | |
| Percentage of which are female | "Staffing plan" means a manifest of key roles and core competencies that will be established by project consultants. "Seafood safety lab" is the new Tarawa lab established by the project. | Annual | MCS staffing plan MFMRD organisational chart MFMRD staffing roster | An MCS staffing plan will be developed by project consultants. MFMRD will engage MSC officers as civil servants using non-project funds. | MFMRD and PMU. |
| Number of site-specific risk assessments for priority seafood species. | "Priority seafood species" means fish, shellfish or other marine products identified by MFMRD as having risk potential. "Site-specific" means within a defined geographic boundary. "Risk assessment" means an evaluation of seafood toxicology risk has been completed by a qualified personnel. | Annual | Risk assessment report. | MFMRD will maintain reports for each risk assessment completed, including date, location, team members, types of testing completed and results of testing. | MFMRD and PMU. |



| | | | | | |
|--|--|--------|---|--|-------------------|
| Schedule of analysis defined in the Kiribati Seafood Safety Scheme fulfilled. | Schedule of routine analyses means the protocol of seafood safety analyses required to be completed on a set schedule as defined in the Kiribati Seafood Safety Scheme. | Annual | MFMRD Kiribati Seafood Safety Scheme annual report and Project Progress Reports. | MFMRD will track progress with implementation of the Scheme and include progress with completion of the standard cycle of the schedule of routine analyses as indicated in the Scheme. | MFMRD and PMU. |
| Grievances registered related to delivery of project benefits that are addressed | This indicator emphasizes the importance of strengthening citizen engagement in the Pacific region, as well as measures whether beneficiaries feel project investment benefits them and meets their needs. | Annual | GRM Register | PMU tracking of GRM grievances registered and addressed. | PMU M&E function. |

**ANNEX 1: Implementation Arrangements and Support Plan****COUNTRY: Kiribati****Kiribati: Pacific Islands Regional Oceanscape Program****A. Implementation Arrangements**

1. **The Executing Agency for the Project is the MFED, entrusted with overall responsibility for execution (and any future amendment) of the Financing Agreement.** MFED will also host KFSU, which will support all World Bank-funded Projects in Kiribati.
2. **MFMRD is the Implementing Agency responsible for the coordination and implementation of the Project.** While the Minister for Fisheries chairs the PSC, the MFMRD Secretary serves as the Project Director. The MFMRD structure is outlined in Figure 3.

Figure 3: MFMRD Organizational Chart

3. **A Project Steering Committee (PSC) will be established for strategic oversight and coordination of the Project.** Functions will include providing overall policy guidance and decision making on issues relating to the Project, facilitating coordination and close collaboration among relevant agencies, reviewing and endorsing the annual work plan and budget, and end of year reports and annual audits with support from the PMU and KFSU. The PSC will meet annually or more frequently, as deemed necessary. The PSC shall be chaired by the Secretary responsible for fisheries, and comprised of, *inter alia*, representatives



of MFED, MFMRD, MLPID, MELAD, MHMS, OAG and KFSU.

4. **MFMRD has established a Project Management Unit (PMU)** that will comprise a full time Project Manager, two full time Operations Officer (to support procurement and financial management activities and coordination with the KFSU), a Kiritimati Operations Officer, a full time M&E Officer, a full time Stakeholder Engagement and Safeguards Officer and a full time Gender Officer. At a minimum, the PMU must include the following personnel, or be supported by personnel with that expertise from the KFSU: Project Manager, Project accountant, M&E Officer, procurement officer, Kiritimati operations officer, stakeholder engagement and safeguards officer, and gender officer. These positions must be maintained at all times throughout the Project implementation period in accordance with the Financing Agreement. To support implementation, MFMRD will prepare and adopt a Kiribati PROP POM no later than two months after the effective date of the Financing Agreement. It will include institutional arrangements for day to day execution of the Project, including procurement, safeguards, financial management and M&E, as well as the process for selecting the selected outer islands within the Gilbert Islands supported under Component 2 of the Project. In addition, MFMRD will prepare the first annual work plan and budget within two months of the effective date of the Financing Agreement with subsequent annual work plans and budgets to be completed by February 1 each year the project is active once approved by the PSC. The PMU will hold primary responsibility for preparing annual work plans and budget for the Project as well as manage standard Project reporting, the procurement plan and diligent application of the POM.
5. **The KFSU will support the PMU on Project management.** The KFSU is expected to support the PMU on the fiduciary aspects of Project management and implementation, including procurement, implementation of safeguards instruments, financial management, and monitoring and evaluation.

B. Financial Management

6. **A financial management assessment was carried out in accordance with the “Principles Based Financial Management Practice Manual” issued by the Board on March 1, 2010.** Under Bank Policy Investment Project Financing with respect to projects financed by the World Bank, the borrower and the Project implementing agencies are required to maintain financial management arrangements (including planning and budgeting, accounting, internal controls, funds flow, financial reporting, and auditing systems) acceptable to the Bank to provide reasonable assurance that the proceeds are used for the purposes for which they are granted. These arrangements are deemed acceptable if they are capable of correctly and completely recording all transactions and balances relating to the Project. In addition, such arrangements are acceptable if they can facilitate the preparation of regular, timely and reliable information regarding project resources and expenditures and safeguard the Projects assets; and are subject to auditing arrangements acceptable to the World Bank.
7. **Budgeting.** The Project budget will be on a cash basis, formulated from agreed work plans to cover the life of the Project, broken down into each financial year which spans from January to December. The overall budget will be an aggregate of the activities whose costs will be estimated at the start of the Project and updated annually. MFMRD will liaise with the KFSU in the annual budget review and the KFSU will monitor actual expenditure against the budget. Budgeting capacity within the KFSU is limited and given the complexity of the Project, some consideration may be given to employment of



additional budgeting expertise at crucial stages of the budgeting process.

8. **Accounting staff and maintenance of accounting records.** The FM demands of this Project will be substantial and require dedicated officers in either the PMU or KFSU. It is highly desirable that the person have strong project management accounting skills be recruited to carry out this function. The responsible officer will prepare the accounting documentation for each transaction which will be authorized by MFED. Quick Books software will be used to record the project financial transactions through a separate company and accounts will be maintained on a cash basis.
9. **Funds flow.** An Australian dollar segregated Designated Account (DA) will be opened at the Australia and New Zealand Banking Group Limited (ANZ) Bank in Kiribati. Withdrawal Applications will be prepared by the Project Accountant. KFSU and MFED staff have experience in preparing and submitting Withdrawal Applications and no issues are expected that could cause delays in funds flow.
10. **Internal control.** The Government of Kiribati accounting processes ensure authorization and payment processes are clearly segregated; however, there had been poor compliance with internal control procedures. Generally, KFSU follow Government of Kiribati policies and procedures and the KFSU also has prepared and Financial Management Manual which outlines additional FM requirements for World Bank financed projects. While there has been some failure to comply with internal controls and more importantly failure to recognize issues that arise (e.g., authorizations signed without adequate review), additional mitigation measures will be put into place by MFED.
11. **Periodic financial reporting.** The Project will be required to prepare semester interim unaudited financial reports (IFRs) in a format agreed upon with the Bank. The IFRs will be required to be submitted not later than 45 days after the end of the reporting period. The IFRs will be prepared by the KFSU Project Accountant in MFED. The KFSU have a good record for submitting IFRs within the prescribed time frame and the risk of late submissions is low; however, there have been issues over the accuracy of commitments register and failure to take action on issues identified by the reports.
12. **External audit.** The Kiribati National Audit Office will conduct an annual audit of the Project accounts and these will be received by the Bank within six months of the end of each of the reporting periods. The Kiribati National Audit Office has extensive experience in auditing government departments and World Bank-funded projects and is an auditor acceptable to the Bank.
13. **Disbursement Methods and Supporting Documentation Arrangements.** Four disbursement methods will be available for the Project: (a) advance; (b) reimbursement; (c) direct payment; and, (d) special commitment. Supporting documentation for disbursements, i.e. Statement of Expenditures, will be outlined in the Disbursement and Financial Information Letter.
14. **Designated Account.** The Project will need a segregated Designated Account (DA) for Advances. The currency of the DA will be Australian Dollars and will be opened in the ANZ Bank, the only banking facility available in Kiribati. Details of ceiling of the designated account and minimum value of application in the case of reimbursement, direct payment and special commitment will be included in the Disbursement and Financial Information Letter.



15. Eligible expenditures under the Project are detailed in Table 4 and IDA funding sources for this Project are presented in Table 5. The Bank's financing of this project is inclusive of taxes. The PPA of US\$1 million financed the office rental for the PMU staff, the salary and benefits of the PMU Project Coordinator and M&E officer (both contracted external consultants), their office equipment, PMU vehicles (Tarawa and Kiritimati), MFMRD staff and PMU travel costs between Tarawa and Kiritimati related to preparation as well as the costs of stakeholder consultations held during Project preparation. Implementation of the activities indicated under Sub-Component 1.2 (disbursement category 2 in Table 4) are conditional upon the Kiribati fisheries laws and regulations being consistent with provisions of Article 73 of UNCLOS, which will be supported through the set of Project-financed activities indicated in Sub-Component 1.1.

Table 4: Eligible Expenditures

| Category | Amount of the Grant Allocated (Expressed in SDR) | Amount of the Grant Allocated (Expressed in US\$) | Percentage of Expenditures to be Financed (Inclusive of Taxes) |
|--|--|---|--|
| (1) Goods, works, non-consulting services, Training and Workshops, Operating Costs and consulting services for the Project (Components 1.1, 2, 3, 4) | 12,200,000 | 16,800,000 | 100 |
| (2) Goods, works, non-consulting services, Training and Workshops, Operating Costs and consulting services for the Project (Component 1.2) | 1,270,000 | 1,700,000 | 100 |
| (3) Refund of advance | 730,000 | 1,000,000 | 100 |
| Total Amounts | 14,200,000 | 19,500,000 | |

Funding Sources

| Source | Amount (SDR, millions) | Amount (Expressed in US\$ equivalent) | Share of Total (percent) |
|---------------------------------|------------------------|---------------------------------------|--------------------------|
| World Bank - IDA National grant | 10.3 | 14,200,000 | 100 |
| World Bank – IDA Regional grant | 3.9 | 5,300,000 | 100 |
| Total | 14.2 | 19,500,000 | 100 |

FM Supervision Plan

| FM activity | Frequency |
|--|--------------|
| Desk reviews | |
| Unaudited interim financial reports - review | Half -yearly |
| Annual audit report - review | Annually |
| On site visits | |



| | |
|--|---|
| Formal supervision | Half yearly initially, then Annually based on risk and performance ratings. |
| Monitoring of actions taken on issues highlighted in review of the interim financial reports and audit reports, auditors' management letters, and other applicable reviews | As needed. |
| Transaction reviews (if needed) | On an as needed basis, and in the case of any issue arising. |

C. Procurement

16. **Procurement implementation arrangements:** MFMRD will be responsible and accountable for procurement planning, monitoring and contract management.
17. **Applicable procurement regulation:** Procurement for the Project will be carried out in accordance with the Procurement Regulations for IPF Borrower issued in July 2016 (as revised in November 2017 and August 2018) and provisions stipulated in the procurement plan. For each contract to be financed by the Grant, the different consultant selection methods, estimated costs, prior review requirements, and time frame will be agreed between the MFMRD and the World Bank Project team in the Procurement Plan.
18. **Procurement of Works:** (estimated at US\$7,950,000.00) will be for construction and operation of the Betio and Kiritimati MCS facilities, construction of seafood safety laboratories,
19. **Procurement of Goods:** (estimated at US\$3,740,000.00) would include office equipment and furniture, procurement of camera system on up to 50 long liners and procurement of seafood toxicology lab equipment.
20. **Procurement of Consulting Services:** (estimated at US\$5,739,976.00). Consulting services will include consultant firms for design and supervision, policy review, capacity building/training, etc. Recruitment of individual consultants to manage and oversee the project (Project Manager, three Operations Officers, Stakeholder Engagement and Safeguards Officer, Gender Officer and M&E Officer).
21. **Procurement risk assessment:** with understaffing at KFSU and the first-time experience and capacity of MFMRD to implement procurement activities for the Project, the risk rating is "substantial". The procurement-related risks identified, and mitigation measures agree are indicated below.



Procurement Risks

| Risk | Agreed Mitigation Action | Responsibility | Timeline |
|---|---|--------------------------------------|---|
| Weak Procurement Capacity | <p>Recruitment of Procurement Officer for the PMU and/or KFSU</p> <p>The Project has hired a Project Manager (under the PPA) and M&E Officer under PMU. The Project will hire additional PMU staff as indicated in the PAD.</p> <p>Procurement training at project kick off and Operations Clinics organized by the World Bank and regular implementation support, as needed.</p> | MFED, MFRMD MFMRD MFMRD and WB | Appraisal Implementation Effectiveness and Implementation |
| Delays in selecting and contracting the consultant and suppliers | MFMRD to work closely with the KFSU to advance the consultant selection process in advance i.e. draft specifications, create TOR, advertising and REOI/CVs evaluation. | MFMRD and KFSU | Negotiations |
| Limited capability and capacity in Contract Management and monitoring within MFMRD/PMU will compromise timely execution of the contract | Employ experienced project management consultants to support the project during various stages of the project life | MFMRD | Implementation |

22. **Frequency of Procurement Support Mission:** In addition to the prior review to be carried out by the Bank, procurement supervision missions will visit the field once a year to carry out post review of procurement.

D. Environmental and Social

23. **The Project is being implemented at the national level by MFMRD. A PMU has been established in MFMRD and, in MFED, in the form of KFSU, to implement the Project and support compliance with safeguard policies.**

Specifically, KFSU will hold primary responsibility for oversight and backstopping services for all World Bank Projects in Kiribati in the areas of safeguards compliance.

24. **The KFSU will hold overall responsibility for ensuring that environmental and social issues are adequately addressed within the Project.** KFSU is expected to retain a full-time safeguards specialist who will provide safeguards support for the Project throughout implementation. The PMU will retain a Stakeholder Engagement and Safeguards Officer to support KFSU in carrying out the safeguard functions for the Project.

25. **Grievance Redress Mechanism.** The complaints process is for people seeking satisfactory resolution of their complaints on the performance of the Project. This process is consistent with the Project's Environmental and Social Management Framework (ESMF). The mechanism will ensure that: i) the basic rights and interests of every person affected by poor environmental performance or social management of the project are protected; and, ii) their concerns arising from the poor performance of the project during the phases of design, construction and



operation activities are effectively and timely addressed. Anyone can register a grievance, ask for information on the Project or get in touch for any reason. Complaints can be anonymous. The various ways to get in touch are phone, email, mail, in person and on the project website. This information, and a summary of the process for answering queries and managing grievances, has been published on MFMRD's website or can be provided in person upon request, by email, or by mail.

26. **Roles and responsibilities.** The Project Manager in the PMU holds primary responsibility for managing the complaints process. In addition, a Grievance Committee will be formed to address any complex or significant grievance management.
27. **The complaints process.** All complaints or grievances are entered into an assigned database that tracks progress of each complaint. Complaint records (letter, email, record of conversation) are stored together, electronically or in hard copy. Each record has a unique number reflecting year and sequence of received complaint (i.e. 2020-01, 2020-02). Each complaint is assigned a specific person responsible for close out. Note: The Project Manager will provide a monthly report of all complaints received to the Minister of MFMRD, including details of their resolution or on-going action to resolve the complaint. All notifications of potential legal action will be immediately notified to the Minister, MFMRD.
28. **Each complaint will have a resolution plan.** All simple complaints must aim to be closed out within 1 month. Complex complaints should aim to be closed out within 3 months or deferred to the Grievance Committee. All complainants have the right to use the national court system at any time to seek resolution. The Project Manager will adjust consultations, the GRM, community engagement, project implementation and other aspects as necessary to avoid future complaints and grievances.
29. **Reporting and Evaluation.** Complaints shall be reported in the regular project reporting to the World Bank. It should contain: a) total number of complaints received; b) total number resolved; c) total number under investigation / not yet resolved; d) total number not yet resolved and exceeds the recommended close out time of 1 month or 3 months; an, e) short paragraph on any significant grievances currently not yet resolved and any risks to project implementation. If there are more than 30 complaints recorded, the Project Manager may decide to investigate any patterns or repetition of issues that need addressing. The Project Manager may decide to get an independent consultant to review and provide advice.

E. Monitoring and Evaluation

30. **Monitoring and Evaluation** Proper planning, monitoring, and enforcement of Kiribati's fisheries sector is important. The M&E Specialist/Officers mobilized under the PMU and KFSU will be responsible for project monitoring under the close supervision of the Project Managers in the PMU and KFSU.

F. Strategy and Approach for Implementation Support

31. **The Implementation Support Plan for this Project will consist of continuous dialogue with MFMRD and MFED.** This will include systematic joint reviews of program implementation, and regular oversight and support for Project fiduciary activities with emphasis to be placed on the risks surrounding institutional capacity identified. Regular dialogue and ongoing implementation support will enable early identification of problems and permit for provision of timely TA to correct any issues that arise. As a part of the joint reviews, the lessons learned from implementing the POM will be sought. These will be incorporated into future revisions and further training will be offered for PMU staff and other relevant stakeholders where necessary.



32. **As far as the fiduciary aspects of the operation, the World Bank will provide support in the areas of procurement and FM, as requested.** This will include (a) providing training to the respective PMU and KFSU staff; (b) assisting with the technical specifications for terms of reference; (c) examining procurement documents and providing feedback to the PMU and KFSU; (d) monitoring progress that has been made against the detailed Procurement Plan; (e) reviewing Kiribati's FM system and planned arrangements under the newly established KFSU; (f) assisting with accounting, reporting, and internal controls; and, (g) reviewing submitted reports and providing feedback to the PMU and KFSU.
33. **Implementation Support Plan and Resource Requirements.** The lack of institutional capacity within the MFMRD for implementation of World Bank projects means that this operation will require ongoing implementation support. This will need to be relatively intense during the first 12 months of operation as the PMU becomes accustomed to the requirements of a World Bank operation. As such, three implementation support missions will take place during the initial 12 months of implementation. This will be reduced to two implementation support missions in subsequent years of the operation. These periodic support visits will be complemented by regular audio and video connections with the relevant counterparts and the Bank task team will aim to secure additional funds to retain an operations officer in the Bank's Tarawa office to support day-to-day implementation of the Project throughout implementation.

| Time | Focus | Skills Needed | Resource Estimate (Staff Weeks/Year) |
|---------------------|-------------------------------------|-------------------------------------|---|
| First twelve months | Implementation Support Coordination | Task Team Leader | 8 |
| | | Operations Officer | 4 |
| | Overall technical support | Fisheries Specialist | 6 |
| | Financial management | FM Specialist | 2 |
| | Procurement | Procurement Specialist | 2 |
| | Safeguards | Environmental Safeguards Specialist | 1 |
| | | Social Safeguards Specialist | 1 |
| 12-48 months | Implementation Support Coordination | Task Team Leader | 6 |
| | | Fisheries Specialist | 3 |
| | Financial management | FM Specialist | 2 |
| | Procurement | Procurement Specialist | 2 |
| | Safeguards | Environmental Safeguards Specialist | 1 |
| | | Social Safeguards Specialist | 1 |

**ANNEX 2: Detailed Project Description****A. PROP SOP**

1. **The original PROP was developed in 2013 as a SOP to be implemented in three phases, each six-years in duration.** Phase I began in 2014 and is under implementation in four countries (Federated States of Micronesia, Republic of Marshall Islands, Solomon Islands, Tuvalu) and one regional institution, FFA. Phase I national projects share a PDO and Results Framework. All four countries are members of the PNA and operate the VDS for their tuna purse seine fisheries and two longline tuna fisheries. They also reflect the same design drawing on a pre-set menu of agreed investment activities. Table 5 lists the menu of activities supported by PROP from which participating Phase I countries can select; all of which have a strong regional dimension with respect to the shared tuna resources (Component 1) and shared coastal sea cucumber (beche-de-mer) fishery (Component 2) in the Pacific region.

Table 5: PROP Menu of Activities**1: Sustainable Management of Oceanic Fisheries**

Capacity building and institutional strengthening at both national and regional levels in the Vessel Day Scheme

Increased monitoring, control and surveillance to enforce tuna access rights regimes

Increased local value added to tuna products

2: Sustainable Management of Inshore Fisheries

Management of export and high-value fisheries

Rights for Stakeholder-Managed Fisheries

. Linkages to Markets and Local Entrepreneurship and Skills Development

3: Habitat Conservation

. Support to Marine Protected Areas and Marine Management Areas

. 4: Regional Coordination, Learning, and Monitoring and Evaluation

2. **Phase II includes fisheries projects in Kiribati, Tonga and Samoa.** These projects represent an evolution from the original architecture of the PROP SOP in Phase I by applying the myriad lessons learned from implementation of Phase I. Phase II projects are aligned with the overarching, regional objectives of the original PROP SOP, and contribute to the regional goals of sustainable oceanic and coastal fisheries management.

B. Kiribati PROP

3. **Component 1: Strengthening Monitoring, Control and Surveillance of Large-Scale Oceanic Fisheries (US\$6.62 million; comprised of US\$2.20 million National IDA and US\$4.42 million Regional IDA).** This component will support MFMRD to strengthen management and compliance of large-scale oceanic fisheries which, in turn, will function to strengthen Kiribati's participation and contribution to the PNA VDS and meeting its obligations with WCPFC. Recent analysis of MFMRD MCS capacity identified several risks associated with MCS performance in Kiribati, resulting in inclusion of targeted activities in the Project to strengthen MFMRD's ability to deliver on its mandate, including: at-sea surveillance; training in acquisition, storage and sharing of MCS data among relevant



agencies; review and strengthening of fisheries legislation, including to satisfy market State requirements and international law obligations (such as under UNCLOS); enforcing license conditions; strengthening the national observer program; conducting port inspection and controls, including procedures and systems supporting transshipment monitoring; FAD management; and, electronic monitoring (EM) and electronic reporting (ER) roll-out in the longline fleet. Based on the recommendations of the recently completed national MCS risk assessment, this Project includes four Technical Assistance (TA) and civil works activities designed to address the risks identified in MFMRD's capacity to carry out its MCS mandate and actively support the PNA VDS. These activities are organized in the following two sub-components:

4. **Sub-Component 1.1 Strengthening Monitoring, Control and Surveillance Capacity (US\$1.44 million; comprised of US\$0.48 National IDA and US\$0.96 Regional IDA)** The rapid growth of the Kiribati offshore fishing fleet has placed significant pressure on MFMRD to meet its national and regional obligations for effective MCS of fishing activities in its EEZ. This Sub-Component will finance a package of TA to strengthen Kiribati's capacity to carry out its MCS duties. The lack of adequately trained MCS officers is a factor associated with the issuance of the EU yellow card. The EU Commission also noted that by implementing the Food and Agriculture Organization (FAO) Port State Measures Agreement, Kiribati would send a strong message to fishing nations regarding Kiribati's commitment to prevent, deter and eliminate IUU fishing. Furthermore, Kiribati has been found to be only marginally compliant with Article 73 of the United Nations Law of the Sea Convention (UNCLOS) which covers fisheries law enforcement of coastal States over foreign fishing vessels and foreign nationals arrested for violating the fisheries laws and regulations of coastal States in their EEZs. Compliance with UNCLOS is a pre-requisite for financing by the Association of MCS activities in Kiribati's EEZ. TA for capacity building and training to support effective implementation of MFMRD IUU counter measures and refinements to the Legal and Policy Framework will include:
 5. The Project will finance activities to strengthen the capacity of officers to implement monitoring, control and surveillance activities to improve IUU countermeasures, in compliance with international law. Specifically, this TA will support: a) evaluation of observed and unobserved fishing trips; b) studies, training and capacity building activities on compliance with the Recipient's obligations under Article 73 of UNCLOS and on market state measures under international law, including implementation of the FAO Port State Measures Agreement (i.e., reporting obligations, inspection of foreign fishing vessels in port, and preparation and dissemination of vessel inspection reports); c) reviewing, updating and publishing the Kiribati National Plan of Action on IUU (NPOA IUU); and, d) reviewing and updating the Recipient's legislation and procedures for compatibility with Article 73 of UNCLOS. Specifically, in order to be compliant with UNCLOS Article 73, the following issues will be addressed in Kiribati's MCS legal framework before financing of the activities indicated under Sub-Component 1.2 can proceed: a) review of the provisions regarding imprisonment of foreign fishing vessels and their crew for contravention of the fisheries laws and regulations and the practical application of those provisions; b) inclusion of provisions regarding prompt release of seized vessels and their crew upon the payment of reasonable bond; and, c) inclusion of provisions for notification of foreign States when their vessels and nationals are arrested. The training delivered under this sub-component will be directed to fisheries and judicial officials involved in enforcement to ensure proper understanding of UNCLOS and the jurisprudence developed concerning Article 73 of UNCLOS.
 6. The Project will also finance policy work to support Electronic Monitoring (EM) roll-out to the longline fleet, including through: a) development of the regulatory and procedural framework, within which the system will operate; and, b) development of a Memoranda of Understanding (MOU) template that MFMRD will sign with each vessel operator to proceed with installation and implementation of up to 50 EM/ER systems. The MOUs will



cover matters such as expectations as to when a vessel must be in port for installation and maintenance and how hard drives are to be handled. If the new EM/Electronic Reporting (ER) related law is still under preparation when the MOUs are signed, this TA will also finance: a) development of clear and transparent criteria regarding which vessels are required to have the monitoring equipment installed and enter into the MOU with MFMRD; b) documentation that the requirements included in the MOUs are applied consistently across different vessels; c) detailed plans for sustaining the EM/ER systems beyond the life of the Project, including cost recovery schemes; and, d) arrangements to integrate external ICT support (e.g., from Ministry of Communications) into the Project, as deemed appropriate.

7. **Sub-Component 1.2 Investing in Improved Monitoring, Control and Surveillance Enforcement (US\$5.18 million; comprised of US\$1.72 National IDA and US\$3.46 Regional IDA)** Implementation of the activities indicated under this Sub-Component will be conditional upon the Kiribati fisheries laws and regulations being consistent with provisions of Article 73 of UNCLOS, which will be supported through the set of Project-financed activities indicated under Sub-Component 1.1.
8. While there are two main ports in Kiribati used by the industrial fishing fleets (Betio, Tarawa and London, Kiritimati), these ports are 2,897 kilometers apart and expeditious servicing of vessels in Kiritimati is problematic. This is further compounded by the fact that there are no offices nor shore-based infrastructure to accommodate fisheries observers in Kiritimati. In the case of Bairiki, there are more than 100 MCS officers³⁶ that require office space for preparation and debriefing prior to boarding and following vessel inspections. While some can be accommodated in the existing MFMRD building in Bairiki, this building has been condemned and is not equipped to house MCS officers and observers nor their equipment. The absence of dedicated MCS facilities and equipment to discharge boarding and inspection responsibilities along with inadequately trained MCS officers are significant factors associated with issuance of the EU yellow card.
9. Kiribati has one of the largest maritime domains in the Pacific and ensuring fishing vessels (catcher boats, transshipment boats) are in full compliance with fisheries regulations and terms and conditions of licensing is a daunting task for MFMRD. Conventional approaches to monitoring compliance have typically relied on human observers' onboard vessels to monitor operations. This has been effective in the Pacific purse seine fishery where observer coverage is 100 percent. However, the agreed target for observer coverage aboard long liners in the WCPO fisheries is set at 5 percent of trips carried out per year observed. Low observer coverage in the longline fleet is due to a combination of factors, including: an absence of flag State regulations that oblige vessels to accept observers, logistical challenges associated with the deployment of human observers on vessels that undertake trips of extended duration on the high seas, safety concerns and the small size of some of the vessels where an observer placement means it is necessary to displace a crew member with consequent implications for vessel operations. EM of the longline fleet, using a combination of onboard cameras and VMS whose data records are subsequently analyzed in near real-time onshore, can significantly increase the number of vessels and trips observed. EM data can be used for both compliance and resource management purposes.
10. ER of the longline fleet as a tool to improve management. To de-risk the potential for IUU fishing from occurring in the longline fleet, EM/ER are new tools that complement and enhance existing log sheet and observer programs that are the foundation of fisheries data collection. EM/ER are particularly useful in fisheries where human observer coverage is low and where there is a need for rapid communication of standardized information from



fishing vessels to shore-based management facilities. Importantly, EM is particularly valuable to support national decision-making, reliable stock assessment, measure bycatch and discards and identifying IUU fishing. Benefits such as application of common standards across data platforms, access to quality assured near-real-time data, higher resolution data and implications for data processing costs are generally accepted. Trialing of ER in the Kiribati longline fleet will be another way to ensure provision of timely logbook data at the national level as well as to the regional authorities and to address a known deficiency in Kiribati reporting obligations. The roll-out of EM/ER systems in the longline fishery is considered a “game changer” as it provides a level of monitoring of catches previously not possible.

11. Once the Legal and Regulatory Framework adjustments planned under Sub-Component 1.1 are completed and Kiribati is found to be fully compliant with the conditions set out in Article 73 of UNCLOS, the Project will be able to invest in the following activities:
 - a. Establishment of fit-for-purpose MCS facilities in Betio and Kiritimati. The Project will finance design, construction and equipping of two fit-for-purpose MCS facilities in Betio and Kiritimati as part of Government’s MCS efforts to ensure large-scale tuna fishing is conducted legally and sustainably.
 - b. EM/ER for vessels operating in Kiribati’s EEZ. The project will finance installation, operation and maintenance of three camera EM/ER systems in up to 50 domestic longline vessels. The systems will be installed on those vessels with whom MFMRD has secured an MOU with the vessel owner to install, operate and maintain the systems during the life of the Project and until such time as the appropriate legislation is in place to support installation and operation of EM/ER systems in the longline fleet beyond the life of the Project. Costs will include training for MFMRD officers, procurement of hardware and software and other costs associated with trialing the system on commercial vessels.
 - c. Enhancing the regional observer program to facilitate boarding inspections of fishing vessels in Betio and Kiritimati. Transshipment is defined in the WCPF Convention as “the unloading of all or any of the fish on board a fishing vessel to another fishing vessel at sea or in port”. Transshipment is regulated at the regional, sub-regional, and national level in the WCPO. At the national level, Kiribati controls various aspects of transshipping using licensing conditions as well as regulatory instruments. All transshipments must be carried out in the designated port under the supervision of an observer or Fishery Officer. However, the absence of berthing facilities for the industrial fleet in the designated inspection ports requires that observers travel from shore in small boats to vessels anchored 1-3 km from shore in order to board the vessel and carry out inspections. While this journey is relatively safe in calm weather, strong winds and heavy seas can make the two-way journey perilous or can result in delayed boarding and lost fishing time. To expedite boarding and inspections in the two designated transhipment ports, the Project will finance procurement of two tender craft (one each for Betio and Kiritimati) to safely transport observers and fisheries inspectors to and from the fishing boats.
12. **Component 2: Diversifying Marine-Based Revenue Streams for Outer Island Coastal Communities (US\$5.97 million).** The Kiribati Fisheries (Conservation and Management of Coastal Marine Resources) Regulation 2019 provides the overarching framework for improved coastal fisheries management and community participation in Kiribati. To support increased and sustainable fisheries production, complementary efforts in capacity building and shore-based infrastructure development along the cold chain are required. This component aims to strengthen coastal community participation in new and existing sustainable marine-based revenue streams in



the Gilbert and Line Islands.

13. Four activities will be financed under this Component:

- a. **Securing the ocean economy of Kiritimati.** This activity will support development of key elements of Kiritimati's ocean economy. Specifically, the Project will: (i) prepare a Kiritimati ocean resources master plan, (ii) develop a Kiritimati sport fishing management plan, and (iii) support implementation of the Kiritimati Island Marine Aquarium Trade Management Plan 2017. Each plan will specifically identify viable options for generating long-term, meaningful employment for women and youth in Kiritimati's ocean economy. These plans will include the following elements:
 - i. Kiritimati Ocean Resources Master Plan. Building on the existing Kiritimati marine spatial plan, a master plan for ocean resource development and utilization will be prepared. This master plan will define objectives and development roadmaps for Kiritimati ocean resources and activities including, but not limited to, sport fishing, moored vessel management, small-scale FAD fisheries, solar salt production and aquaculture.
 - ii. Kiritimati sport fishing management plan. The Project will undertake a quantitative and qualitative assessment of sport fishing impacts and trends for locations in Kiritimati. This assessment will inform drafting of a sport fishing management plan for Kiritimati to strengthen CMM of bonefish and the existing bonefish permit system and expand coverage to additional species by: (i) identifying spawning times and migration routes of the species; (ii) working with sport fishing guides to share information on catches and sizes to improve tracking of bonefish thereby establishing guidance on the number and spatial distribution of permits; (ii) establishing a code of conduct governing fishing practices (e.g., bag limits, catch and release); (iii) defining permit conditions such as requirements to report catch information to MFMRD; and, (iv) strengthening the framework for improved planning and coordination with Ministry of Tourism and other stakeholders.
 - iii. Kiritimati aquarium fish management plan. Supported by the Pacific Community (SPC), the Kiritimati Island Marine Aquarium Trade Management Plan 2017 has been developed. Building on this work, the Project will support implementation of the Plan by assessing the human resource and capacity needs to implement this management plan, and design and implement a training and capacity development program for Kiritimati officers to improve stock assessments, quota setting and MCS of this fishery.
- b. **Strengthening evidence-based decision-making and compliance for coastal fisheries management.** This activity will strengthen capacity for improved coastal fisheries governance and community-based management. The Project will deliver a package of technical support, including strengthening coastal resources licensing systems nationwide, enhancing community participation in coastal resources management and strengthening the capacity and operational effectiveness of MFMRD's Coastal Fisheries Division. The Project will specifically support the following activities:
 - i. Strengthening coastal resource licensing systems nationwide. MFMRD is the designated authority for issuing coastal resources use permits. The Coastal Fisheries Roadmap Action 3.8 outlines the need to "enhance the coastal fisheries permit system for the sustainable management of key commercial



- species". The Project will finance studies evaluating the costs and benefits of a national coastal resource licensing system and provide a needs assessment to strengthen existing coastal resource licensing systems.
- ii. Enhancing community participation in coastal resource management. The Project will increase community awareness of coastal resources regulations and community-based fishery management plans via a dedicated outreach program. In parallel, the Project will design and implement a targeted community training program to build capacity in community-based fisheries management, addressing issues that include: participatory management planning, goal setting, catch reporting and MCS. Through this process, the Project will accelerate development and endorsement of community-based fishery management plans in line with provisions under the Kiribati Fisheries (Conservation and Management of Coastal Marine Resources) Regulation 2019.
 - iii. Strengthening the capacity and operational effectiveness of MFMRD's Coastal Fisheries Division. The Project will: (i) undertake a gap analysis of institutional roles and responsibilities and supporting regulatory frameworks to enhance operational efficiency and inter-agency coordination; (ii) design and implement a human resource development program for CFD including, but not limited to, coastal MCS, case management and evidence preservation and improve the quantity and quality of coastal fisheries data collected, interpreted and incorporated into decision-making; (iii) procure hardware and software packages necessary to transition from a paper-based data collection system to an online ER system; and (iv) develop online databases for coastal fisheries compliances cases and online registry of fishing vessel licenses.
- c. **Accelerating development and diversification of sustainable supply chains in the Gilbert Islands.** This activity will provide a package of technical assistance and capacity building activities to identify and catalyze sustainable fisheries supply chains in selected outer islands within the Gilbert Islands, chosen from a menu of potential activities which includes: establishing a marine spatial plan for Tarawa; identifying up to four candidate outer islands in accordance with the process set out in the Project Operations Manual and preparing sustainable supply chain development plans for such selected outer islands in accordance with the Fisheries (Conservation and Management of Coastal Marine Resources) Regulations 2019; and, providing training and capacity support to catalyze development of sustainable supply chains in accordance with those plans, as well as providing relevant materials and facilities and through targeted CMM in the nearshore FAD fishery. Specifically, the package of TA would be able to include:
- i. Establishing a marine spatial planning for Tarawa. This activity contributes to one of the main actions arising from Cabinet Minute 39/19 whereby Cabinet tasked MFMRD to work with Office of the Attorney General (OAG), Ministry of Environment, Lands and Agricultural Development (MELAD) and Ministry of Internal Affairs (MIA) to improve demarcation of coastal fisheries between North Tarawa, South Tarawa and Betio. The study will identify, review and incorporate village bylaws;
 - ii. Preparing sustainable supply chain development plans in accordance with the Fisheries (Conservation and Management of Coastal Marine Resources) Regulations 2019 for up to four candidate outer islands. The Project will undertake rapid assessments of candidate supply chains such as solar salt, small-scale FAD fisheries, sport fishing and aquarium fish to: (i) define production capacity and proposed institutional arrangements; (ii) identify target markets and define investment needs; (iii)



undertake cost-benefit analysis and risk assessments; and (iv) assess product quality standards. These rapid assessments will include a baseline study to evaluate the “fit-for-purpose” nature of existing operations and supporting infrastructure, including, but not limited to, small-scale fishing boats, landing facilities, processing and storage facilities and other related small-scale infrastructure. Informed by these rapid assessments, up to four outer islands will be selected, as further detailed in the POM, and development plans for these selected outer islands will be prepared that identify priority supply chains and establish a road map for their development in a sustainable manner, including integration with relevant management frameworks and marine spatial plans. In particular, this work will ensure small-scale nearshore FAD fisheries are supported and monitored closely to ensure robust CMM are in place. This TA will also include a comprehensive gender analysis to assess participation of women and youth in supply and trade of marine species and identify gender related barriers to be addressed in subsequent interventions.

- iii. Invest to catalyze development of sustainable supply chains in up to four candidate outer islands. Once the aforementioned assessments and plans are completed, the Project will make targeted investments to catalyze implementation of the sustainable supply chain development plans. Investments will involve procurement of goods and equipment, as well as provision of training and capacity support to selected communities and entrepreneurs to enhance product diversification in a sustainable manner quality and value. Goods and equipment would include, among others: small boats designed for accessing nearshore FADs (with complementary investments in CMM for the nearshore FAD fishery); safety-at-sea gear; onshore processing equipment such as solar smokers; onshore processing facilities (e.g., preparation areas); onshore storage facilities such as ice and cold stores; packaging tools and equipment (e.g., vacuum packaging for smoked flying fish); and aquarium fish holding facilities and equipment (storage tanks, O₂ injection equipment).

- d. **Accelerating development and diversification of sustainable supply chains within the Line Islands.** To facilitate development of the small-scale fisheries sector in the Line Islands, the Project will finance a detailed needs assessment for a CPPL operated small-scale fisheries development and production center to land, process and assist with fish product development and marketing. Priority species under consideration include, lobsters, tuna, milkfish and snappers. This component will also include a determination of the economic viability of small-scale fisheries supply chains in the Line Islands, including identification of barriers (storage, market size, transport) and initial development of a proposed facility design, installed equipment and maintenance and operation costs for such a center. These studies will include an analysis of appropriate CMM to be supported to ensure the sustainability of the relevant fisheries and of the impact of the facility on men, women and youth livelihoods and employment.

14. **Component 3: Improving Seafood Toxicology and Safety Measures in Selected Fisheries (US\$4.97 million).** This Component will finance a core set of TA and civil works designed to reduce the risk of contaminated seafood and seafood products from entering domestic and international markets. The five activities supported under this Component involve collaboration with the MHMS on food security measures, water quality testing and associated quality control measures, the MLPID on coordination of cross-sectoral work in the Line Islands, in particular Kiritimati, and MELAD on water quality and environmental pollution monitoring and management measures. Through the Project, MFMRD will establish channels of collaboration with these ministries on seafood toxicology-related data sharing schemes, conducting joint analyses and development of management plans to ameliorate the health of domestically consumed and exported seafood products. In addition, the Competent Authority



(housed in MFMRD), will hold a formal seat on the National Committee on Mercury, led by MELAD, as well as a formal seat on the National Food Standards Committee led by MHMS. This Component will also finance a series of annual seafood toxicology monitoring and management capacity building events that benefit technical staff of MFMFRD and selected staff of these partner ministries. MFMRD will specifically collaborate with these three ministries to design and deliver the annual capacity building program with a focus on accredited seafood toxicology laboratory skills development.

15. The five activities financed under this Component include:

- a. **Development of a pollution and seafood toxin assessment and ecosystem management plans for Tarawa lagoon and coastal fisheries, including studies to identify the primary affected fish species and the sources of toxins, and implementation by MFRMD of certain actions under those plans.** This activity aims to ascertain the scope and scale of contamination in key seafood species. Specifically, the project will finance studies that: (i) identify primary fish species associated with ciguatera fish poisoning (CFP) and scombroid fish poisoning (SFP); and, (ii) identify sources of chemical contaminants, their release mechanisms, exposure points, routes and impacted populations, including Chemicals of Potential Concern[2] from the Tarawa and Kiritimati landfills, vessels in ports, harbors and berthing areas as well as shore-based discharged effluent into the Tarawa lagoon and selected coastal ecosystems in Tarawa and Kiritimati. The assessments will inform preparation of the Tarawa Lagoon and coastal ecosystems management plans in Tarawa and Kiritimati. These management plans will include specific mitigation measures for MFMRD to implement. The Project will support those specific mitigation measures, which may include activities such as: TV and radio campaigns to raise awareness of areas with a high incidence of seafood toxins and where fresh healthy fish can be sourced, finance installation of signage and guidance to affected communities, support community engagement meetings and information sessions and foster constructive intra-ministerial dialogue and action led by Cabinet in those sectors polluting the lagoon and densely populated coastal areas. With respect to specific mitigation measures to be actioned by MFMRD, the Project will also invest in and source alternative supplies of fish to affected communities from outer islands and finance training and roll-out of a multi-ministerial emergency response task force that would be called upon in the event of a major contamination issues. This follows from Cabinet's approval of the one health institute and the project can use the multi-ministerial PSC to guide this work once the comprehensive multi-sectoral assessments have been completed. Resources will also be allocated to complete an awareness campaign should it be required. However, a full set of sector specific mitigation plans can only be developed once the type, sources and pathways of contaminants are known.
- b. **Seafood toxicology training and capacity building program.** This activity will finance three outputs: (i) a comprehensive capacity needs assessment of MFMRD technical staff working on seafood toxicology and coastal fisheries seafood safety, in particular, civil servants tasked with operating the seafood toxicology and coastal research lab modules of the centralized lab and implementing the Kiribati Seafood Safety Scheme; (ii) design of a multi-faceted, multi-year training and capacity building program to address the accredited technical lab skills and knowledge gaps identified in the needs assessment; and, (iii) roll-out of the training and capacity building program for both cohorts (i.e., seafood toxicology lab technicians and coastal fisheries lab technicians) delivered through partnership arrangements with reputable seafood toxicology laboratories as well as in close collaboration with University of the South Pacific (USP), Secretariat of the Pacific Regional Environment Programme (SPREP), FFA and SPC, among others. Various modalities will be applied in implement this training program, including: workshops, study tours, training internships, short courses,

[2] A chemical of potential concern (COPC) is a chemical found in tank waste vapors that may pose a hazard in the work environment.



technical workshops and conferences. The program will be structured to collaborate with the three accredited seafood toxicology testing laboratories with whom MFMRD has established Service Level Agreements, including: Institute of Applied Science (USP, Fiji), Assure Quality (Auckland and Wellington, New Zealand) and Cawthron Lab (Nelson, New Zealand).

c. **Design, Construction and Outfitting of the two MFMRD laboratories on seafood toxicology and coastal fisheries research within the centralized Kiribati One Health Support Institute (KOHSI) to be located in Betio.**

³⁷ Achieving the Healthy Component of KV20 will be difficult unless the national testing and biosecurity capacity is improved to support implementation of the Food Safety Standards and Regulation 2014. Inadequate testing capacity is a key constraint to implementation of the food safety regulations. There is no capacity to analyze chemical characteristics and chemical contaminants of agricultural and food products in Kiribati, thus constraining implementation of food safety act and regulations. The current option of outsourcing testing needs to labs in Fiji, Australia, New Zealand and Europe has several limitations. There are several logistical and administrative constraints that affect the quality of the samples and results as confirmed by Fisheries Competent Authority. Delays in getting results from overseas laboratories contributes to subsequent delays in shipments overseas. Lack of in country testing capacity also acts as a disincentive to investors seeking to develop fish processing factories near catch locations given that firms, like KFL, currently spend upwards of US\$130,000 annually on overseas testing. As per the Cabinet Minutes No. 51/19 issued September 6, 2019, the proposal to establish KOHSI as a centralized food safety testing facility in line with the National Quality Policy was approved. In tandem, Cabinet also supported establishment of a task force to oversee development of KOHSI, led by MCIC, in close collaboration with MFED, MELAD, MFMRD, and the Ministry of Infrastructure and Sustainable Energy (MISE). As such, rather than invest in a stand-alone MFMRD seafood toxicology and coastal fisheries research lab, midway through the life of this Project, and once the formal training and capacity building program is well underway training accredited seafood toxicology and coastal fisheries lab technicians, the Project will first finance a comprehensive feasibility study for construction of the two proposed MFMRD laboratories of the KOHSI and, if deemed a sound investment, the Project will then plan to finance design, construction and equipping of the MFMRD laboratories of the KOHSI to be operated under the Kiribati Seafood Safety Scheme. Specifically, Project support for this lab will include: (i) preparation of the two MFMRD modules of the centralized KOHSI lab design, associated tender documents and construction of two modules of the overall centralized lab; and, (ii) development of equipment specifications for the MFMRD laboratory modules (i.e., seafood toxicology and coastal fisheries research) followed by subsequent purchase and installation of lab equipment as well as field equipment to facilitate and support coastal fisheries sampling (e.g., vehicle, trailer, boat and field sampling kits). However, if the original feasibility study does not support investment in the design and construction of the labs, funds earmarked for this activity will be reallocated to Component 2 to expand work on supply chain development in additional outer islands in the Gilbert Island Group.

d. **Improved Seafood Safety Legal and Regulatory Framework.** This activity will finance preparation of draft legislation to enhance the Fish Export Regulation (2012). Specific investments will include: (i) preparation of a draft seafood safety policy; (ii) preparation of draft amendments of relevant fisheries and food laws to incorporate seafood safety measures; and, (iii) preparation of draft legislation to support implementation of the Kiribati Seafood Safety Scheme.

e. **Development of a Kiribati Seafood Safety Scheme.** The Project will also finance development of a national

³⁷ Cabinet approved centralized testing and biosecurity facility for Kiribati.



seafood safety scheme under this Component to guide and deliver annual seafood risk assessments, risk management plans and actions for selected fish and shellfish consumed domestically and exported, along with preparation of guidelines and standard operating procedures for the MFMRD modules of the KOHSI. This TA will specifically finance drafting of a Kiribati Seafood Safety Scheme including the following elements:

- i. Designing and carrying out species and site-specific risk assessments for priority seafood species including hazard identification and characterization, exposure assessment, hazard risk ranking based on the elements of risk and the likelihood and severity of the adverse health and economic effects;
- ii. De-risking strategies to minimize exposure to hazards and reducing the likelihood of hazards occurring including: preparation of ordinances and advisories targeted to different population groups (gender and age specific) for consumption;
- iii. Cost-recovery study of the Scheme and development of viable business model for sustainable operation of the Scheme;
- iv. Development and dissemination of promotion and awareness raising materials on seafood handling practices, including seafood handling and phytosanitary practices for seafarers, shore-based food workers and street vendors;
- v. Development of an efficient organizational structure for the Kiribati Seafood Safety Scheme, including: staffing (managerial, technical, administrative, maintenance) and an initial three-year work program of costed activities; and,
- vi. Development of necessary accredited seafood toxicology lab protocols and procedures.

16. **Component 4: Delivering Effective Project Management (US\$1.94 million; comprised of US\$1.06 million National IDA and US\$0.88 million Regional IDA).** This Component will ensure effective and efficient project management through support for a Project Management Unit (PMU) comprised of a full time Project Manager, two full time Operations Officer (to support procurement and financial management activities and coordination with the KFSU), a full time Kiritimati Island Operations Officer, a full time Monitoring and Evaluation (M&E) Officer, a full time Stakeholder Engagement and Safeguards Officer and a full time Gender Officer. The PMU will hold primary responsibility for preparing annual work plans and budget for the Project as well as manage standard project reporting, the procurement plan and diligent application of the Project Operations Manual (POM).

**ANNEX 3: Economic Analysis**

1. A cost benefit analysis was applied to estimate potential net benefits of the Project. Net benefits are estimated by comparing long term outcomes “without the project” to the outcomes “with the project” being implemented. The “without the project” scenario is likely to incur losses due to: a) a continuing trend in coastal resources over-exploitation resulting in habitat degradation in the Tarawa lagoon, decline in revenue as a result of coastal fisheries stock depletion; b) increase in fishing pressure on near shore marine ecosystems and biodiversity; c) potential loss of competitiveness and/or market access opportunities due to insufficient food safety requirements; d) loss of revenue from market access restrictions for fish caught in Kiribati’s waters due to failing to meet the country’s duty under international law to take adequate actions to prevent, deter and eliminate IUU fishing; and, e) insufficient MCS that would prevent Kiribati from taking the full advantage of projected revenue opportunities from increase in abundance of tuna as a consequence of eastward shift in key stocks of skipjack and yellowfin¹.
2. The “with the project” scenario is likely to generate positive net benefits, such as: a) increase in revenues from large-scale oceanic fisheries and coastal fisheries; b) increase in income and additional employment of coastal communities generated from diverse and sustainable marine-based activities such as sport fishing and the pet fish aquarium sector in Kiritimati; c) increase in productivity from potential recovery of coastal species in the Tarawa lagoon; d) improvements in seafood quality (thus higher value products) provided by development of sustainable supply chain for the Gilbert Islands; d) economic benefits for Kiribati-flagged vessels and/or its processing facility as a result of a potential increase in seafood safety standards; and, f) greater access to international markets due to compliance with international safety and IUU standards and requirements.
3. An economic analysis of the project was conducted, based on a CBA to estimate the quantifiable direct benefits generated by the project. Given that benefits to be generated from Components 2 and 3 are difficult to quantify given the paucity of available data, the analysis focuses largely on the benefits to be generated from Component 1 activities. The main economic benefits from Component 1 are due to the likely increase in revenue from tuna fishing as a result of improved MCS that would allow Kiribati to fully benefit from future increases in tuna abundance in its EEZ. In recent years the revenue generated by Kiribati’s government from tuna fishing licenses was around US\$130 million per annum.³⁸ With appropriate MCS in place there is potential for fishing license revenue to increase in the future as Kiribati is expected to be a net beneficiary of increased abundance of tuna in its EEZ by 2050. Essential infrastructure (such as: MCS facilities, electronic monitoring and reporting systems in the longline fishery, tender crafts for inspectors) and technical expertise provided by the project will assist Kiribati to take the full advantage of the increased abundance of tuna. The economic analysis assesses the cost benefit ratio (CBR), net present value (NPV) and internal rate of return (IRR) over a 20-year period (6 years of project implementation and 14 years of flow-on benefits) under three different scenarios, using a 5 percent discount rate.³⁹ The CBR for the project is greater than one, ranging from 1.64 to 5.47. The associated IRR is 11 percent to 34 percent with NPV of US\$ 37.30 million (Table 6).
4. Sensitivity analysis shows that the project is economically sound under different discount rates and scenarios. The full cost of the project (all four components) is supported by the quantified benefits from the Component 1 alone. Additional benefits may arise from new investments in sport fishing in Kiritimati. In 2014, an estimated total

³⁸ Kiribati Government (2017) 2018, Budget, National Economic Planning Office, Ministry of Finance and Economic Development, Bairiki, Tarawa

³⁹Average per capita increase over a 20 year period Source: <https://www.macrotrends.net/countries/KIR/kiribati/gdp-per-capita>



economic benefit of US\$ 2 million (2018) was generated from sport-fishing license fees and tourist expenditure.⁴⁰ Doubling of current economic benefits from recreational fishing alone (over the next 20 years) would justify the cost of the investment of Component 2. The project is also expected to generate a range of non-quantifiable (non-market) benefits from abatement of coastal pollution, overfishing and deterioration of coastal habitat. These benefits include positive impacts on public health, aesthetics of coastal areas, biodiversity and recreational use of the marine environment. However, an assessment of the scope and scale of the impacts of marine pollution and overfishing on the environment and the recreational use values is required for an economic valuation of potential non-quantifiable (in dollar terms) benefits of the Project. Currently, limited data exist to value the environmental, social and recreational benefits of the project. In order to assess potential benefits generated by investments in coastal fisheries management, local community socio-economic data, catch and effort data, biological assessments of fish stock, seafood toxicology impact assessments and non-market valuation of the coastal environment are required.

Table 6: Cost benefit ratio (CBR), net present value (NPV) and internal rate of return (IRR)

| Increase in revenue over 20 years ⁴¹ | IRR | CB | 2% | | 5% | | 10% | |
|---|-----|------|-----------------|------|-----------------|------|-----------------|--|
| | | | NPV (US\$,2019) | CB | NPV (US\$,2019) | CB | NPV (US\$ 2019) | |
| 3% | 11% | 2.21 | 17.19 million | 1.64 | 8.45 million | 1.06 | 0.72 million | |
| 7% | 25% | 5.16 | 59.03 million | 3.83 | 37.30 million | 2.48 | 17.34 million | |
| 10% | 34% | 7.37 | 90.42 million | 5.47 | 58.94 million | 3.54 | 29.81 million | |

⁴⁰ Campbell, B. & Hanich, Q. 2014. Fish for the future: Fisheries development and food security for Kiribati in an era of global climate change. WorldFish, Penang, Malaysia. Project Report: 2014-47.

⁴¹ Under a predicted IPCC warming scenario, Kiribati is expected to gain 17.7 percent increase in revenues from tuna fees. Source: SPC policy brief #332, 2019, Implications of climate-driven redistribution of tuna for Pacific Island economies.



ANNEX 4: Map of Kiribati

