

QUEBEC MODEL UNITED NATIONS

FEBRUARY 12, 2022

COLLÈGE DE BOIS-DE-BOULOGNE



UNITED NATIONS ENVIRONMENT ASSEMBLY

BACKGROUND GUIDE

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Committee Overview

The United Nations Environment Assembly (UNEA) as the governing body of the United Nations Environment Programme (UNEP), was established in 2012 following the United Nations Conference on Sustainable Development (RIO+20¹), during which participants called for universal membership in UNEP². Its first session took place in 2014³. Before UNEA's creation, UNEP was presided over by the Governing Council, which was composed of 58 States⁴. The decision to expand UNEP to universal membership (meaning that all 193 Member States of the United Nations, along with its non-voting permanent observers, are represented⁵) reflects how decision-making, especially in issues concerning the environment, requires broad participation. The Assembly allocates an opportunity for all peoples to contribute to the search of solutions geared towards our planet's health."⁶ UNEP has seven thematic sub-programmes, which focus on "climate change, disasters and conflicts, ecosystem management, environmental governance, chemicals and waste, resource efficiency, and environment under review."⁷ UNEA meets every two years "to set priorities for global environmental policies and develop international environmental law"⁸, and offers support for the implementation of the *2030 Agenda for Sustainable Development*⁹. It allows Member States' governments to collaborate¹⁰ and engage with regional bodies, UN entities, and non-governmental organisations¹¹. The mandate of the Governing Council (now UNEA), which was established in General Assembly resolution 2997(XXVII), requires it to "promote international co-operation in the field of the environment and [...] recommend, as appropriate, policies to this end", to "provide general policy guidance for the direction and coordination of environmental programmes within the United Nations system", to "promote the contribution of the relevant international scientific and other professional communities to the acquisition, assessment and exchange of environmental knowledge and information", to "maintain under continuing review the impact of national and international

¹ Environment Assembly, *About the United Nations Environment Assembly*, <http://environmentassembly.unenvironment.org/about-united-nations-environment-assembly>.

² UN General Assembly, *The Future We Want (A/RES/66/228)*, 2012, par. 88 a).

³ Environment Assembly, *First Session of the United Nations Environment Assembly*, <https://environmentassembly.unenvironment.org/unea1>.

⁴ Environment Assembly, *Environment Assembly*, <http://environmentassembly.unenvironment.org/fr>.

⁵ UN Environment, *Directory: Committee of Permanent Representatives to the UN Environment*, 2019, <https://wedocs.unep.org/bitstream/handle/20.500.11822/14397/CPR%20directory%20new.pdf?sequence=1&%3BisAllowed=>.

⁶ Environment Assembly, *About the United Nations Environment Assembly*, <http://environmentassembly.unenvironment.org/about-united-nations-environment-assembly>.

⁷ UN Environment, *What We Do*, <http://www.unenvironment.org/about-un-environment/what-we-do>.

⁸ Environment Assembly, *Environment Assembly*, <http://environmentassembly.unenvironment.org/fr>.

⁹ *United Nations Environment Assembly of UNEP: Sustainable Development Knowledge Platform*, <https://sustainabledevelopment.un.org/index.php?page=view&type=30022&nr=243&menu=3170>.

¹⁰ Environment Assembly, *Environment Assembly*, <http://environmentassembly.unenvironment.org/fr>.

¹¹ UN Environment, *Engaging with UN Environment Assembly and Member States*, April 26, 2018, <http://www.unenvironment.org/civil-society-engagement/participation-and-engagement/engaging-un-environment-assembly-and-member>.



environmental policies and measures on developing countries”, and to “review and approve annually the programme of utilization of resources of the Environment Fund”¹². The mandate of the Governing Council was expanded in the *Agenda 21* (1992), which recognized the need for a stronger role for UNEP, including “access to greater expertise”, “adequate financial resources”, and “closer cooperation” with other UN entities¹³. The foci of UNEP are detailed in paragraph 38.22 of *Agenda 21*. UNEP reports annually to the General Assembly and the Economic and Social Council (ECOSOC)¹⁴. Its subsidiary organ, the Committee of Permanent Representatives (CPR), “prepares the meetings of the UN Environment Assembly and regularly reviews the implementation of its decisions.”¹⁵ The Governing Council decision 27/2 assigned duties to the CPR such as preparing the UNEP’s agenda, offering advice on policy matters, overseeing the implementation of its decisions, organizing thematic debates and encouraging the participation of non-resident members¹⁶. UNEP enjoys funding from three separate sources. First, the UN Regular Budget, which is the smallest source of income of UNEP, “supports the functions of the Secretariat, including the Governing Bodies, coordination in the UN system, and cooperation with global scientific communities.”¹⁷ Second, the Environment Fund is supported by the Member States where the Voluntary Indicative Scale of Contributions (a set of criteria) determines the share each Member State should contribute to UNEP¹⁸. The Fund is used to support “the essential capacity needed for the balanced and efficient delivery of UNEP’s programme of work”¹⁹. Third, earmarked contributions, which are UNEP’s most important source of income, are funds that are earmarked by the donor to be used in specific states or geared towards specific projects, a specific theme or sub-programmes.²⁰ The main purpose of earmarked contributions is linked to “the expansion and replication of results of our core work, including building capacity in more countries and with more partners.”²¹ Top donors in 2019 included the Global Environment Facility, the Green Climate Fund, Germany, the European Commission, and Saudi Arabia²².

¹² UN General Assembly, *Institutional and Financial Arrangements for International Environmental Cooperation (A/RES/2997(XXVII))*, 1972, par. 2 a)-g).

¹³ UN Conference on Environment and Development, *Agenda 21*, 1992, par. 38.21-38.23.

¹⁴ Environment Assembly, *Media Fact Sheet: The United Nations Environment Assembly*, 2014, <https://www.cbd.int/ldb/image/2014/celebrations/wed-2014-factsheet-unea.pdf>.

¹⁵ UN Environment, *Committee of Permanent Representatives*, September 17, 2018, <http://www.unenvironment.org/cpr>.

¹⁶ UN Environment Governing Council, *Implementation of Paragraph 88 of the Outcome Document of the United Nations Conference on Sustainable Development (Decision 27/2)*, 2013, par. 9.

¹⁷ UN Environment, *Funding Facts*, <http://www.unenvironment.org/about-un-environment/funding-and-partnerships/funding-facts>.

¹⁸ UN Environment, *Environment Fund*, <http://www.unenvironment.org/about-un-environment-programme/funding-and-partnerships/funding-facts/environment-fund>.

¹⁹ UN Environment, *Funding Facts*, <http://www.unenvironment.org/about-un-environment/funding-and-partnerships/funding-facts>.

²⁰ *Ibid.*

²¹ UN Environment, *Earmarked Contributions*, <http://www.unenvironment.org/about-un-environment/funding-and-partnerships/funding-facts/earmarked-contributions>.

²² *Ibid.*



I. Preventing the Loss of Biodiversity

Introduction

Biodiversity is defined as “the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems²³.” The preservation of biodiversity is crucial because a broad range of human rights directly depend on thriving biodiversity and healthy environments²⁴. Specifically, biodiversity supplies humans with the raw materials for consumption and production. Biodiversity loss, on the other hand, refers to a decrease in the quantity, genetic diversity, and variety of species, as well as the biological communities in a specific region. Biodiversity is deteriorating at rates unmatched in human history and the pace of species extinction is accelerating, with serious consequences for the world’s ecosystems and for humans all around the world. Since 1900, the average abundance of native species in most major land-based ecosystems decreased by at least 20%²⁵. More than 1 million animal and plant species are currently threatened with extinction, many within decades, which is the highest number ever recorded in human history²⁶. The long-term protection of biodiversity is essential for the proper functioning of ecosystems that are vital for human welfare and survival. When the loss of biodiversity takes place, the ecosystem becomes undermined thereby destroying the basic underpinnings of the worlds’ economies, livelihoods, food security and quality of life. The importance of biodiversity and its rapid decline pressured the General Assembly in 2010 to declare the years from 2011 to 2020 “the United Nations Decade on Biodiversity”²⁷ and the 2021-2030 decade “the United Nations Decade on Ecosystem Restoration.” From 12 to 13 October 2021, the Convention on Biological Diversity (CBD) hosted the 2021 UN Biodiversity Conference (Fifteenth meeting of the Conference of the Parties (COP-15)) in Kunming, China, with the participation of almost 2918 delegates in Kunming, and 2478 virtually connected thereby setting the stage for the adoption of an effective post-2020 global biodiversity framework. Important initiatives and pledges made during the meeting, informed by the Global Environment Facility, in collaboration with the United Nations Development Programme (UNDP) and UNEP, included fast-track financial and technical assistance to developing states in order to improve society's relationship with biodiversity and ensure that the common vision of living in harmony with nature is realized by 2050.²⁸

²³ *Convention on Biological Diversity*, June 5, 1992, United Nations, Treaty Series, vol. 1760, p. 79, art. 2.

²⁴ UN Environment, Report July 19, 2021

<https://wedocs.unep.org/bitstream/handle/20.500.11822/35407/KMBio.pdf?sequence=1&isAllowed=y>

²⁵ UN Report 06 May 2019|

²⁶ Ibid.

²⁷ UN General Assembly, *Convention on Biological Diversity (A/RES/65/161)*, 2010, par. 19.

²⁸ *Convention on Biological Diversity (CBD/WG2020/3/3)*, 2021, annex, par.1.

International and Regional Framework

One of the first international conventions targeting biodiversity was the *Convention on Wetlands of International Importance especially as Waterfowl Habitat* (1971)²⁹, also known as the Ramsar Convention, which today protects over 2330 sites around the world. The record of protected wetlands remains with the International Union for Conservation of Nature (IUCN)³⁰ and Member States. Without prejudice to their sovereignty on those lands³¹, IUCN must promote the conservation of those areas³². The adoption of the *World Heritage Convention* (1972) indirectly protects biodiversity where natural areas that become world heritage sites benefit from the protection granted to such sites.³³ The *Convention on International Trade in Endangered Species of Wild Fauna and Flora* (CITES) (1973)³⁴ is a major convention aimed at the protection of biodiversity. It regulates the import and export of certain species, by establishing lists containing endangered and vulnerable species³⁵, as well as imposing sanctions for their illegal trade³⁶. The final convention on the matter in the 1970s is the *Convention on the Conservation of Migratory Species of Wild Animals* (1979)³⁷, which aims to protect both the migratory species and their habitats. It encourages Member States to elaborate bilateral agreements between them for species on a case-by-case basis³⁸.

The *Convention on Biological Diversity* (CBD) (1992)³⁹ remains the most crucial mechanism in advocating for the protection of biodiversity. The objectives of the convention are, but not limited to, “the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources [...]”⁴⁰ The convention aims to protect biodiversity, but also engages with economic outputs, such as the distribution of benefits generated from environmental exploitation. Two following protocols are found within this convention: the *Cartagena Protocol on Biosafety* (2000)⁴¹ and the *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising*

²⁹ *Convention on Wetlands of International Importance especially as Waterfowl Habitat*, February 2, 1971, United Nations, Treaty Series, vol. 996, p. 245.

³⁰ *Ibid.*, art. 2.

³¹ *Ibid.*, art. 2(3).

³² *Ibid.*, art. 3(1).

³³ *Convention for the Protection of the World Cultural and Natural Heritage*, November 16, 1972, United Nations, Treaty Series, vol. 1037, p. 151.

³⁴ *Convention on International Trade in Endangered Species of Wild Fauna and Flora*, March 3, 1973, United Nations, Treaty Series, vol. 993, p. 243.

³⁵ *Ibid.*, Appendix I, II.

³⁶ *Ibid.*, art. VIII.

³⁷ *Convention on the Conservation of Migratory Species of Wild Animals*, June 23, 1979, United Nations, Treaty Series, vol. 1651.

³⁸ *Ibid.*, art. 2(3).

³⁹ *Convention on Biological Diversity*, 5 June 1992, United Nations, Treaty Series, vol. 1760, p. 79.

⁴⁰ *Ibid.*, art. 1.

⁴¹ *Cartagena Protocol on Biosafety to the Convention on Biological Diversity*, January 29, 2000, United Nations, Treaty Series, vol. 2226, p. 208.



from their Utilization (2010)⁴². The former aims to regulate the transfer and use of living modified organisms to limit adverse effects on biodiversity and human health⁴³, while the latter focuses on a “fair and equitable sharing of the benefits arising from the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies [...]”⁴⁴. A third protocol, the *Nagoya - Kuala Lumpur Supplementary Protocol on Liability And Redress to the Cartagena Protocol on Biosafety* (2010)⁴⁵ addresses the liability and reparations in case of damages in relation to the *Cartagena Protocol*⁴⁶.

In addition to the convention and its three protocols, the Conference of Parties (COP) adopted the *Strategic Plan for Biodiversity 2011-2020* (2010) which provides a global framework regarding biodiversity where parties agreed to implement in their respective national action plans⁴⁷. It includes the Aichi Biodiversity Targets which are the 20 targets divided into five strategic goals to be achieved by 2020; 6 were partially achieved while the remaining 14 were not⁴⁸. The Post-2020 Global Biodiversity Framework builds on the *Strategic Plan for Biodiversity 2011-2020* to transform society's relationship with biodiversity and to ensure the shared vision of living in harmony with nature by 2050. The 15th meeting of the COP adopted the Post-2020 Global Biodiversity Framework in order to achieve the goal of building sustainable relationship between humanity and nature in a world where “biodiversity is valued, conserved, restored and wisely used [...]”⁴⁹. This framework seeks to “galvanize urgent and transformative action by Governments and all of society, including indigenous peoples and local communities, civil society, and businesses, to achieve the outcomes it sets out in its vision, mission, goals and targets, and thereby to contribute to the objectives of the Convention on Biological Diversity, its Protocols, and other biodiversity related multilateral agreements, processes and instruments.”⁵⁰

The *United Nations Framework Convention on Climate Change* (UNFCCC) (1992)⁵¹ and the *Paris Agreement* (2015)⁵² (an extension of the UNFCCC) remain important frameworks revealing

⁴² *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity*, 29 October 2010, United Nations, Treaty Series, vol. 3009.

⁴³ *Cartagena Protocol on Biosafety to the Convention on Biological Diversity*, January 29, 2000, United Nations, Treaty Series, vol. 2226, p. 208, art. 1.

⁴⁴ *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity*, 29 October 2010, United Nations, Treaty Series, vol. 3009, art.1.

⁴⁵ *Nagoya - Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety*, October 15, 2010, United Nations, No. 30619.

⁴⁶ *Ibid.*, art. 1.

⁴⁷ Conference of the Parties to the Convention on Biological Diversity, *The strategic plan for biodiversity 2011-2020 and the Aichi Biodiversity Targets* (UNEP/CBD/COP/DEC/X/2), October 29, 2010.

⁴⁸ Secretariat of the Convention on Biological Diversity, *Global biodiversity outlook 5*, September 15, 2020, p. 36 – 120.

⁴⁹ Conference of the Parties to the Convention on Biological Diversity, *The strategic plan for biodiversity 2011-2020 and the Aichi Biodiversity Targets* (UNEP/CBD/COP/DEC/X/2), October 29, 2010, Annex, art. 11.

⁵⁰ UN General Assembly, *Convention on Biological Diversity* (A/RES/65/161), 2010, par. 19.

⁵¹ *United Nations Framework Convention on Climate Change*, May 9, 2002, No. 541131771, p. 107.

⁵² *Paris Agreement*, December 12, 2015, United Nations, Treaty Series, vol. 3009, art.1.



the pressuring issue surrounding climate change. The Paris Agreement on Climate Change is a legally binding international agreement on the subject of climate change. Adopted by 196 Parties at the United Nations Conference on Climate Change (COP 21) in Paris on December 12, 2015 and entering into effect on November 4, 2016, its objective is to keep global warming considerably below 2 degrees Celsius, ideally 1.5, relative to pre-industrial levels.⁵³ In order to meet this long-term objective, states aspire to reach global peaking of greenhouse gas emissions as soon as possible to produce a climate neutral world by mid-century.⁵⁴

Role of the International System

The UNEA is the main governing body for the UNEP with 193 Member States making the UNEA the highest-level and most universal body on the topic of the environment. As a subsidiary of the General Assembly and the Economic and Social Council, all decisions taken by the UNEA are reported to these two main organs. While the UNEA's decisions are not legally binding, it nonetheless plays an important role in setting priorities for environmental policies worldwide and works in collaboration with other UN bodies and specialised agencies to protect the environment. The fifth session of the Assembly took place from the 22nd to the 26th of February 2021 and tackled the protection and restoration of nature, thus tying in with biodiversity. The Environment Assembly adopted by consensus the following decisions: management of trust funds and earmarked contributions 5/2, medium-term strategy for the period 2022–2025 and programme of work and budget for the biennium 2022–2023 and adjournment and resumption of the fifth session of the United Nations Environment Assembly⁵⁵. Many representatives emphasized the importance of cooperation and increased multilateral efforts, as well as their willingness to collaborate with other Member States, regional groups, the Bureau, and the secretariat in the run-up to the fifth session of the Environment Assembly's in-person resumed meeting⁵⁶. Substantive issues that necessitate in-depth talks will be delayed to UNEA 5.2, which will take place from February 28 to March 2, 2022⁵⁷.

Another important body involved in the protection of biodiversity is the COP of the CBD. The COP is the body that governs the CBD⁵⁸ where it reviews decision-making and resolutions, promotes the implementation of the CBD, and sets priorities. Its tasks include, but are not limited to, reviewing scientific, technical and technological advice⁵⁹, establishing subsidiary bodies for

⁵³ UN Climate Change, The Paris Agreement, <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

⁵⁴ *Ibid.*

⁵⁵ UN, *Proceedings of the United Nations Environment Assembly at its fifth session (UNEP/EA.5/25)*, 24 February 2021

⁵⁶ *Ibid.*

⁵⁷ *Ibid.*

⁵⁸ *Convention on Biological Diversity*, June 5, 1992, United Nations, Treaty Series, vol. 1760, p. 79, art. 23.

⁵⁹ *Ibid.*, art. 23(4)a).



scientific and technical advice⁶⁰ and cooperating with the bodies of other conventions dealing with biodiversity⁶¹. Every Party State to the CBD is represented at the COP and takes part in the decision-making process. Based in Montreal, the CBD Secretariat organizes the meetings of the COP⁶² and coordinates with fixed international bodies⁶³. The CBD also established the Subsidiary Body on Scientific, Technical and Technological Advice⁶⁴. This multidisciplinary body's main role is to advise the COP by providing scientific and technical assessments on biodiversity⁶⁵, analyzing the impact of different measures put in place⁶⁶ and providing advice on scientific research about biodiversity⁶⁷.

The COP is the UNFCCC's top decision-making body, and it evaluates progress in combating climate change. Since the first COP in Berlin in 1995, COPs have been used to assess and measure progress made by Parties (the nations that signed up). COPs also permit the negotiations of the next round of emissions reductions. They are an essential tool for tracking progress and determining future goals in order to meet the Paris Agreement's objectives. Additionally, the COP examines the obligations of the Parties⁶⁸, helps with information exchange⁶⁹ and generally examines the implementation of the UNFCCC and takes any fundamental decision. The COP also adopts agreements within the UNFCCC, such as the *Kyoto Protocol* (1998)⁷⁰ and its successor, the *Paris Agreement* (2015).⁷¹

Tackling Direct and Indirect Causes of Biodiversity Loss

Biodiversity loss has led to a breakdown in the ecosystem's functioning. From the alteration of 75% of the land surface, the cumulative impacts on 66% of the ocean area, the loss of 85% of wetlands area to the decline of native species by 20%, few signs are positive⁷². Over 40% of amphibian species, over 33% of reef-forming corals, and more than a third of all marine animals face an extremely high risk of extinction. Since the 16th century, at least 680 vertebrate species have been pushed to extinction and more than 9% of all domesticated mammalian breeds used for food and agriculture are expected to become extinct by 2016, with at least 1,000 more breeds still

⁶⁰ *Ibid.*, art. 23(4)g).

⁶¹ *Ibid.*, art. 23(4)h).

⁶² *Ibid.*, art. 24(1)a).

⁶³ *Ibid.*, art. 24(1)d).

⁶⁴ *Ibid.*, art. 25.

⁶⁵ *Ibid.*, art. 25(2)a).

⁶⁶ *Ibid.*, art. 25(2)b).

⁶⁷ *Ibid.*, art. 25(2)d).

⁶⁸ *United Nations Framework Convention on Climate Change*, May 9, 2002, No. 541131771, p. 107, art. 7(2)a).

⁶⁹ *Ibid.*, art. 7(2)b).

⁷⁰ *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, 11 December 1997, United Nations, Treaty Series, vol. 2303, p. 162.

⁷¹ UN Climate Change, The Paris Agreement, <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

⁷² IPBES, *The Global Assessment Report on Biodiversity and Ecosystem Services Summary for Policymakers* (IPBES/7/10/Add.1), 2019, p. 11, https://ipbes.net/sites/default/files/2020-02/ipbes_global_assessment_report_summary_for_policymakers_en.pdf.



endangered. Around one million species already face extinction because of human actions, which is ten to a hundred times higher than the average in the past 10 million years⁷³ illustrating pressing urgency to act.

In the past 50 years, there were five direct drivers of changes that impacted biodiversity where for the most part, they were human-induced changes. These five direct causes are the following: (1) changes in land and sea uses, (2) direct exploitation of organisms, (3) climate change, (4) pollution and (5) invasive alien species⁷⁴. Underlying these direct drivers are the human behaviours or traces of human evolution that trigger changes in nature such as evolution of values, production and consumption patterns such as market preferences, human population dynamics and trends (demographics, migrations, urbanization), trade and technological innovations⁷⁵. Changes in land use, such as the expansion of agriculture and the tremendous increase in the spatial size of urban areas since 1992, driven by the quick rise of population in the past 50 years and consumption, constitutes the environmental devastation since 1970, mostly at the expense of forests. Overexploitation is the second most impactful activity on both terrestrial and marine ecosystems⁷⁶. Global warming continues to accelerate the intensity of forest fires, floods and drought therefor impacting species distributions and population dynamics. Pollution negatively impacts soil, water quality and the atmosphere. For example, plastic pollution, which increased by tenfold in a period of 30 years, negatively impacted 86% of marine turtles and 44% of seabirds.⁷⁷ Half of the threatened terrestrial mammals and one quarter of threatened birds are affected by climate change⁷⁸. Since 1980, the environment also witnessed the expansion of alien species by 40% due to the increase of trade and dynamic, consequently placing one fifth of the native species on Earth at risk⁷⁹. The loss of biodiversity begets negative effects on ecosystems all around the world.

Biodiversity Loss, Ecosystem Preservation, and Sustainable Development Goals

The multiple relations inside an ecosystem, between ecosystems and the human population that live in it, make it evident that fluctuations of the biodiversity that composes an ecosystem. There are multiple Sustainable Development Goals (SDGs) provided by the 2030 Agenda that link the

⁷³ *Ibid.*, p. 12.

⁷⁴ *Ibid.*, p. 11. Similar drivers had been identified in the *Millennium Assessment*, see “Chapter 4: Biodiversity”, in *Global Assessment Reports Volume 1: Current State & Trends*, ed. Rashid Hassan, Robert Scholes, Neville Ash (Washington, Covelo, London: Island Press, 2005), <http://www.millenniumassessment.org/documents/document.273.aspx.pdf>.

⁷⁵ See generally IPBES, “Chapter 2.1. Status and Trends – Drivers of Change”, in *IPBES Global Assessment on Biodiversity and Ecosystem Services*, 2019, https://ipbes.net/sites/default/files/ipbes_global_assessment_chapter_2_1_drivers_unedited_31may.pdf.

⁷⁶ IPBES, *The Global Assessment Report on Biodiversity and Ecosystem Services Summary for Policymakers (IPBES/7/10/Add.1)*, 2019, p. 12 and 29, https://ipbes.net/sites/default/files/2020-02/ipbes_global_assessment_report_summary_for_policymakers_en.pdf.

⁷⁷ *Ibid.*, p. 29.

⁷⁸ *Ibid.*, p. 13.

⁷⁹ *Ibid.*



loss of biodiversity to the exacerbation of humanity's challenges⁸⁰, and the social and economic development to the protection of biodiversity and ecosystems⁸¹. While SDG 15 (Life on Land) specifically tackles biodiversity loss, notably by reducing the degradation of natural habitats (target 15.5) and integrating related policy to national and local planning, development processes and poverty reduction strategies (target 15.9), marine biodiversity is explicitly underlined in SDG 14 (Life Below Water). However, biodiversity is key in achieving SDGs 2 (Zero Hunger) and SDG 6 (Clean Water and Sanitation)⁸². Other SDGs address direct causes of biodiversity loss, such as climate change (SDG 13), pollution (SDGs 6, 12, 14 and 15), overexploitation (SDGs 6, 12, 14), or underlying causes, such as building necessary institutions and human capital (SDG 3, 4, 16), enhancing gender equality (SDG 5) and ending inequalities (SDG 10).

The concept of *ecosystem services*, reflects well the interconnection between biodiversity and human development⁸³, as the services ecosystems provide are typical to human well-being⁸⁴. The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) identifies 18 main categories of “nature’s contributions to people” (NCP) such as pollination and dispersal of seeds (NPC 1); regulation of air quality (NPC 2), climate (NPC 3) and freshwater (NPC 6 and 7); protection against hazards and extreme events (NPC 9), and organisms detrimental to humans (NPC 10); energy (NPC 11); food and feed (NPC 12), material (NPC 13) and medicinal (NPC 14); lastly, learning and inspiration (NPC 15), experiences (NPC 16), identities (NPC 17) and maintenance of options (NPC 18)⁸⁵. Under these indicators, “although the outputs of co-production have increased for most material NCP, the long-term ability of nature to continue producing these NCP has declined”⁸⁶, where tropical and subtropical regions have faced an impact.

In these circumstances, the complexity of the interactions inside an ecosystem and its effects on people are the relationship between pandemics and their relationship with biodiversity. In a 2020 workshop, the IPBES states that climate change and biodiversity have the same underlying causes as pandemics⁸⁷: A similar unsustainable wildlife consumption and trade, agriculture expansion and intensification are in an interconnected world. The workshop underlines that biodiversity loss paired with landscape transformation is directly linked to the increase of diseases in some species.

⁸⁰UN General Assembly, *Transforming our World: The 2030 Agenda for Sustainable Development* (A/RES/70/1), 2015, p.5.

⁸¹UN General Assembly, *Transforming our World: The 2030 Agenda for Sustainable Development* (A/RES/70/1), 2015, p.9.

⁸² Secretariat of the Convention on Biological Diversity, *Global Biodiversity Outlook 5*, 15 September 2020, <https://www.cbd.int/gbo/gbo5/publication/gbo-5-en.pdf>.

⁸³ *Ibid.*

⁸⁴ *Ibid.*, p. 28.

⁸⁵ For a summary, see IPBES, “Chapter 2.3. Status and Trends - Nature’s Contributions to People (NCP)”, in *IPBES Global Assessment on Biodiversity and Ecosystem Services*, 2019, p. 9, https://ipbes.net/sites/default/files/ipbes_global_assessment_chapter_2_3_ncp_unedited_31may.pdf.

⁸⁶ *Ibid.*, p. 79.

⁸⁷ IPBES, *IPBES Workshop on Biodiversity and Pandemics: Executive Summary*, 2020, p. 5, https://ipbes.net/sites/default/files/2020-11/201104_IPBES_Workshop_on_Diversity_and_Pandemics_Executive_Summary_Digital_Version.pdf



Although, others are able to adapt well to these changes and be the source of transmission of new kinds of pathogens adaptation.

The approach in analyzing biodiversity as part of an ecosystem provides a relevant framework valuable to analyzing the complexity that governs relationships between people and their environment. Furthermore, there's also the impact that the diversity of genes has on the functional dynamic interaction between plant, animal, micro-organisms, the non-living and humans⁸⁸. It is in this perspective that continual assessment becomes vital; the need to understand the effects of policies on the ecosystem, hence biodiversity, always requires more knowledge of those interactions⁸⁹.

Gaps in Knowledge and Data and Indigenous People

The IPBES's Global Assessment Report Summary for Policymakers offers an overview of the knowledge gap to better address biodiversity loss and its impact. For example, the urge for data to determine the effectiveness of area-based conservation, restoration methodologies. Another example is wildlife trafficking by identifying various ecosystems and their interactions, and the impacts of climate change on marine life. Human activities have induced not only fast ecological changes, but also fast biological evolution, which leads to unpredictable trends on the sustainability of species and their contributions to people. Further analysis is needed to craft relevant policies in order to control evolutionary trajectories, protecting threatened species and reducing the distribution of unwanted species⁹⁰. The extent to which biodiversity contributes to well-being is not yet well accessed for some NPC⁹¹. It is still not clear what consequences biodiversity loss has on people and their well-being, due to lack of socioeconomic data, including gender-specific data⁹². Moreover, the biodiversity knowledge we have is still limited in decision-making⁹³. Better indicators and more data of this kind must be taken into account to assess the concrete consequences of the loss of biodiversity on the SDGs⁹⁴. The knowledge gap must be tackled by

⁸⁸ See the definition of ecosystem, and its relations with biodiversity and human well-being in "Chapter 1 MA Conceptual Framework", in *Global Assessment Reports Volume 1: Current State & Trends*, ed. Rashid Hassan, Robert Scholes, Neville Ash (Washington, Covelo, London: Island Press, 2005), p. 29, <http://www.millenniumassessment.org/documents/document.765.aspx.pdf>.

⁸⁹ The CBD defines the ecosystem as "a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit." *Convention on biological diversity*, 5 June 1992, United Nations, Treaty Series, vol. 1760, p. 79, art. 2, cbd.int/doc/legal/cbd-en.pdf.

⁹⁰ *Ibid.*, p. 12.

⁹¹ IPBES, "Chapter 2.3. Status and Trends - Nature's Contributions to People (NCP)", in *IPBES Global Assessment on Biodiversity and Ecosystem Services*, 2019, p. 77, https://ipbes.net/sites/default/files/ipbes_global_assessment_chapter_2_3_ncp_unedited_31may.pdf.

⁹² Secretariat of the Convention on Biological Diversity, *Global Biodiversity Outlook 5*, September 15, 2020, p. 118, <https://www.cbd.int/gbo/gbo5/publication/gbo-5-en.pdf>.

⁹³ *Ibid.*, p. 116.

⁹⁴ IPBES, *The Global Assessment Report on Biodiversity and Ecosystem Services Summary for Policymakers (IPBES/7/10/Add.1)*, 2019, p. 15, https://ipbes.net/sites/default/files/2020-02/ipbes_global_assessment_report_summary_for_policymakers_en.pdf.



integrating a diversity of stakeholders' points of view. The indigenous peoples and local communities constitute in this respect a rich source of perspectives to find ways to limit biodiversity loss⁹⁵. As a matter of fact, IPBES underlines that they “have long histories of observation, experimentation, prediction, testing, investigating causality, and interpretation and explanation.”⁹⁶ Their emphasis on a relational view has acknowledged the relationship between knowledge and the people and made it a unique insight that must be protected.⁹⁷ It has been recognized that, to achieve the goals of the Strategic Plan for Biodiversity 2011-2020 and the CBD 2050 Strategic Vision for Biodiversity, indigenous peoples and local communities must be integrated into the scientific approach regarding environmental management.⁹⁸

Implementation and National Biodiversity Strategies and Action Plans

The National Biodiversity Strategies and Action Plans (NBSAPs) required by article 6(a) of the CBD, are the way through which Member States implement the Convention at national levels.⁹⁹ Per target 17 of the Aichi Biodiversity Targets, about 69 had prepared an NBSAP in accordance with the targets by 2015. By July 2020, 170 State Parties had submitted it.¹⁰⁰ However, only 69 NBSAPs were developed as a government instrument, as to be mainstreamed into all its policies, and only a few have integrated resource mobilization (25), public awareness (38) or gender considerations (76).¹⁰¹ Biodiversity strategies have not been mainstreamed into poverty eradication or sustainable development policies.¹⁰² The NBSAPs have to be the foundations to a whole combination of policies at all levels of government which addresses biodiversity loss and nature deterioration. As well, it ensures biodiversity restoration and conservation, sustainable production and management of ecosystems and planning. In that perspective, it has to be part of a multi-stakeholder and community-based approach.¹⁰³

⁹⁵ Conference of the Parties to the Convention on Biological Diversity, *Updated Assessment of Progress towards Selected Aichi Biodiversity Targets and Options to Accelerate Progress PCBD/COP/DEC/14/1*, Annex, 2018 art.1(h), <https://www.cbd.int/doc/decisions/cop-14/cop-14-dec-01-en.pdf>.

⁹⁶ IPBES, “Chapter 2.3. Status and Trends - Nature’s Contributions to People (NCP)”, in *IPBES Global Assessment on Biodiversity and Ecosystem Services*, 2019, p. 26, https://ipbes.net/sites/default/files/ipbes_global_assessment_chapter_2_3_ncp_unedited_31may.pdf.

⁹⁷ *Ibid.*

⁹⁸ *Ibid.*, p. 42; See generally the Forest Peoples Programme, *Local Biodiversity Outlook 2: The Contributions of Indigenous Peoples*, 2020, <https://localbiodiversityoutlooks.net/wp-content/uploads/2020/09/Local-Biodiversity-Outlooks-2.pdf>.

⁹⁹ Secretariat of the Convention on Biological Diversity, *Global Biodiversity Outlook 5*, 15 September 2020, p. 34, <https://www.cbd.int/gbo/gbo5/publication/gbo-5-en.pdf>.

¹⁰⁰ *Ibid.*, p. 16.

¹⁰¹ *Ibid.*, p. 109.

¹⁰² Conference of the Parties to the Convention on Biological Diversity, *Updated assessment of progress towards selected Aichi Biodiversity Targets and options to accelerate progress PCBD/COP/DEC/14/1*, 2018 art.5(d), <https://www.cbd.int/doc/decisions/cop-14/cop-14-dec-01-en.pdf>.

¹⁰³ IPBES, *The Global Assessment Report on Biodiversity and Ecosystem Services Summary for Policymakers (IPBES/7/10/Add.1)*, 2019, p. 41, https://ipbes.net/sites/default/files/2020-02/ipbes_global_assessment_report_summary_for_policymakers_en.pdf.



Conclusion and Further Research

Despite all the measures trying to be established and the importance of maintaining healthy ecosystems and preventing biodiversity loss, this phenomenon has only increased. The UNEA continues to encourage the Member States to be involved in the negotiations and consultations. It also continues to incorporate biodiversity protection measures into national policies which will effectively protect ecosystems and allow us to continue benefiting from them. These steps are essential to reach the biodiversity goals set out for 2050 but also to align ourselves to the SDGs and help attenuate the impacts of climate change.

In considering the Post-2020 Global Biodiversity Framework, it will be fundamental to consider that none of the Aichi Biodiversity Targets were fully achieved¹⁰⁴. Delegates may look into the outcome of the fifth session of the UNEA (22nd to the 26th of February 2021) but also analyze what steps the UNEA can take to stop the rapid decline of biodiversity. Those steps could be how to better protect ecosystems and biodiversity, how the UNEA can bring States to reach a consensus and collaborate in the global fight against biodiversity loss, especially in making them take part in the Post-2020 Framework. Also, it needs to consider what are the elements to be achieved in order to reach the 2050 objectives. Delegates may ponder on what role locals and inhabitants of certain regions can have in the fight against the loss of biodiversity, especially indigenous peoples. Moreover, it would be interesting to address how we can better integrate scientific research and find it through the process.

¹⁰⁴ Secretariat of the Convention on Biological Diversity, *Global Biodiversity Outlook 5*, September 15, 2020, p. 10, <https://www.cbd.int/gbo/gbo5/publication/gbo-5-en.pdf>.



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II. Sustainable production and consumption

Introduction

The availability of energy has transformed the course of humanity over the last centuries. Not only have sources of energy been first unlocked (e.g., fossil fuels), but also diversified to other renewable technologies. As part of the industrialization process, production and consumption have been important for worldwide economic and social development¹⁰⁵, with millions of people lifted out of poverty and a number of countries reaching middle income status. It is estimated that in the 25 years from 1990 to 2015, the extreme poverty rate dropped from nearly 36% to 10%¹⁰⁶. In many countries, these trends have contributed immensely to economic growth with the creation of jobs, the enablement of investment in public infrastructure, and many more. With that being said, such increase in resource production and consumption has come at a significant cost to the environment, ranging from pollution to air, water and soil to increased resource depletion and degradation. increase in population growth. The use of natural resources (biomass, minerals, water...) has grown exponentially from less than 10 billion tonnes in 1950 to over 70 billion tonnes in 2010¹⁰⁷. This level of resource use was largely based on the assumption of limitless resources and overlooked the connections between resource use and environmental impacts including climate change and water scarcity. Matched with an increase in population growth, the global energy demand has almost tripled between 1971 and 2010¹⁰⁸. Consequently, non-renewable resources are being rapidly depleted and renewable resources are consumed at a faster rate than Earth's ability to replenish them. In 2018, humanity consumed in only eight months what it takes the Earth a year to produce¹⁰⁹. Henceforth, current patterns of development are not sustainable. In order to ensure high human development while simultaneously protecting the environment, it is vital to assess the situation and take responsibility for sustainable consumption and production (SPC) patterns. SPC has been defined in a number of different ways, most recently by the United Nations Environment Programme (UNEP) as a “holistic approach to minimizing the negative environmental impacts from consumption and production systems while promoting quality of life for all”¹¹⁰. UNEP's Economy Division has a project on Global Opportunities for Sustainable Development Goals (GO

¹⁰⁵ Gabriel Blanco *et al.* Chapter 5: Drivers, Trends and Mitigation. in *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, p. 376.

¹⁰⁶ The World Bank. *Piecing Together the Poverty Puzzle*. Poverty and Shared Prosperity 2018. URL: <https://www.worldbank.org/en/publication/poverty-and-shared-prosperity-2018>

¹⁰⁷ European Commission. *Competence Centre on Foresight*. Developments and Forecasts of Aggravating Resource Scarcity. URL: https://knowledge4policy.ec.europa.eu/foresight/topic/aggravating-resource-scarcity/more-developments-relevant-aggravating-resource-scarcity_en

¹⁰⁸ *Ibid.*

¹⁰⁹ Global Footprint Network (2020). Ecological Footprint. URL: <https://www.footprintnetwork.org/our-work/ecological-footprint/>

¹¹⁰ Hoballah & Averous, Goal 12—Ensuring Sustainable Consumption and Production Patterns: An Essential Requirement for Sustainable Development, 2015.



for SDGs), which aims to tie and strengthen SCP into the wider concept of sustainable development through the 17 SDGs. Thus, SCP is an integral part of accomplishing sustainable development. Despite recent progress, numerous challenges to the implementation of SCP remain, particularly in terms of greater access to cleaner energy around the world. Better management of resources through sensible policies will help create an alternative model of economic growth, in which the needs of the many are improved¹¹¹.

International and Regional Framework

A number of conferences took place to tackle the growing unsustainable production and energy uses leading to the development of the 10-year *Framework of Programmes on Sustainable Consumption on Sustainable Consumption and Production* (10YFP) and the aforementioned SDGs¹¹². Foremost, the 1972 United Nations Conference on the Human Environment (UNCHE) held in Sweden placed environmental issues at the forefront of international concerns. The participants adopted the Stockholm Declaration, which contained 26 principles concerning the link between economic growth, environmental degradation and the well-being of people around the world. It additionally contained policy recommendations to protect and properly manage resources, notably by massive investment in environmental education. Another of the major results of the Stockholm conference was the creation of the UNEP¹¹³.

As the UNCHE secured a permanent place for the environment on the world's agenda, the conference and its aftermath led to a series of international environmental consultations. For example, the 1992 UN Conference on Environment and Development (UNCED), also known as Earth Summit, introduced the concept of sustainable development as a strategy for the future. The summit also produced the Rio Declaration on Environment and Development and Agenda 21, both milestones on the path towards sustainability¹¹⁴. The Commission on Sustainable Development (CSD) was also envisioned in Agenda 21 to enhance international cooperation and facilitate intergovernmental decision-making capacity. The Commission, which was formally established in 1992 by UN General Assembly Resolution 47/191, held its first substantive session in June 1993 and has met annually since then. From its inception, the CSD was there to ensure effective follow-up of UNCED¹¹⁵.

¹¹¹ UN DESA, The Millennium Development Goals Report 2015, 2015, pp. 8-9

¹¹² UN Environment, Marrakech Process on Sustainable Consumption and Production

¹¹³ United Nations, Report of the United Nations Conference on the Human Environment, A/CONF.48/14, Stockholm, 5-16 June 1972, <https://undocs.org/en/A/CONF.48/14/Rev.1>.

¹¹⁴ Agenda 21, 19th plenary meeting, June 14th 1992, A/CONF.151/26/Rev.1 (Vol. I).

¹¹⁵ United Nations. Sustainable Development. Commission on Sustainable Development (CSD). URL: <https://sustainabledevelopment.un.org/csd.html#:~:text=The%20United%20Nations%20Commission%20on,known%20as%20the%20Earth%20Summit>



The international regional framework for sustainability carried on with the 2002 World Summit on Sustainable Development (WSSD) in Johannesburg¹¹⁶. The conference brought together tens of thousands of participants, including heads of State and Government, leaders from non-governmental organizations (NGOs), the private sector and academia. Unlike its predecessor, it was primarily concerned with implementation of the outcomes of UNCED rather than with new treaties and targets, although a number of new targets were agreed¹¹⁷. Although having difficulties in achieving consensus in key areas such as energy and globalisation, WSSD nevertheless succeeded in placing a strong focus on local issues like household energy, water and sanitation. Health was singled out as one of five priority areas, along with water, energy, agriculture and biodiversity¹¹⁸. The WSSD adopted two main documents: the Johannesburg Plan of Implementation and the Johannesburg Declaration on Sustainable Development. The former strengthened the role of the Commission on Sustainable Development in continuing international oversight and monitoring progress on sustainability agreements. The latter outlined the path taken from UNCED to the WSSD and emphasized the need for SPC implementation. To accelerate the shift towards SPC, the Johannesburg Plan of Implementation called to promote the development, as mentioned, of 10YFP¹¹⁹.

Behind this framework was an international collective effort called the “Marrakech Process”¹²⁰. Launched in 2003, their main objective is to provide inputs to the elaboration of 10YFP. The current activities of the Marrakech Process include expert meetings and roundtables held at the international, regional and national levels and “Cooperation Dialogue” that engages development agencies into SCP activities. Built on the work of all SCP stakeholders, the 10-year Programmes was officially implemented in 2012, at the Rio+20 UN Conference on Sustainable Development¹²¹. 10YFP consists of six programmes: Sustainable Public Procurement, Consumer Information for SCP, Sustainable Tourism, Sustainable Lifestyles and Education, Sustainable Buildings and Construction, and Sustainable Food Systems¹²².

¹¹⁶ UN General Assembly resolution 57/253, World Summit on Sustainable Development, A/RES/57/253 (2003), <https://digitallibrary.un.org/record/482206?ln=en>. U.N, Report of the World Summit on Sustainable Development, A/CONF.199/L.1, Johannesburg, 26 August-4 September 2002, <https://undocs.org/pdf?symbol=en/A/Conf.199/20>.

¹¹⁷ United Nations. United Nations Conference on Environment and Development, Rio de Janeiro, Brazil, 3-14 June 1992. Conferences: Environment and sustainable development. URL: <https://www.un.org/en/conferences/environment/rio1992>

¹¹⁸ Food and Agriculture Organization of the United Nations. One Planet – FAO’s work on biodiversity, One Health and climate. URL: <https://www.fao.org/news/story/en/item/1369372/icode/>

¹¹⁹ World Summit on Sustainable Development (WSSD), Johannesburg Summit. Sustainable Development Goals: Knowledge Platform. URL: <https://sustainabledevelopment.un.org/milestones/wssd>

¹²⁰ UNEP, *Marrakech Process: Towards a Global Framework for Action on Sustainable Consumption and Production*, <http://www.unep.fr/scp/marrakech/>.

¹²¹ UN General Assembly resolution 66/288, The Future We Want, A/RES/66/288, September 11, 2012, https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/66/288&Lang=E.

¹²² UN General Assembly resolution 66/288, The Future We Want, A/RES/66/288, September 11, 2012, https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/66/288&Lang=E.



The recent international and regional framework directly linked to the SCP has been deeply rooted in the various SDGs projects from the UN¹²³. The aforementioned 10YFP, for instance, aims in fostering international cooperation between both developed and developing countries¹²⁴. Their main objectives are to support implementation of SCPs into regional and national policies, provide financial help and capacity-building support, and promote information-sharing regarding SCPs between all participating stakeholders. These SCP initiatives can also be seen at a regional level with the ASEAN Forum and the Partnership for SCP Programmes in Africa¹²⁵. Successfully implementing SCP will have positive and joint effects upon accomplishment of the 2030 Agenda and the 17 SDGs. Two SDGs with particular relevance for SCP are SDG 1 on “no poverty” and SDG 10 on “reduced inequalities”. These goals are important for understanding the approach taken by the international community to increasing resource efficiency in an attempt to reduce poverty and economic inequality¹²⁶.

Role of the International System

UNEP is playing an important role in ensuring the SCP framework’s implementation at a regional and international level. It serves as the 10YFP Secretariat, as well as the administrator of a Trust Fund overseeing SCP’s implementation in developing countries¹²⁷. UNEP also takes part in the Inter-Agency Coordination Group (IACG) in the 10YFP. The IACG is made of 19 various UN bodies and chaired by UNEP, which aims to increase visibility of SCP both inside and outside of the UN, and support inter-agency partnerships in the implementation of SCP programmes¹²⁸.

Moreover, the concept of cleaner production was first outlined by UNEP in 1989 with the immediate task to create awareness around its environmental strategy. This includes the links between SCP and green circular economy, sustainable tourism and “Corporate Social Responsibility” (CSR)¹²⁹. During the past 30 years, the concept has changed in scope, methods and application area. To give an example, it was expanded to Resource Efficient and Cleaner Production (RECP), defined as: “integrated and continued application of preventive environmental

¹²³ UNEP, *Ibid*.

¹²⁴ UNEP, *The 10 Year Framework of Programmes on Sustainable Consumption and Production*, <https://sustainabledevelopment.un.org/topics/sustainableconsumptionandproduction>.

¹²⁵ UNEP (2011), *The Global Outlook on SCP Policies. Taking Action together*. URL: http://ricg.org/wp-content/uploads/legacy_content/archivos/Contenidos/es/38/UNEP%20GO%20SCP%20brochure.pdf

¹²⁶ UN General Assembly, *Transforming our world: the 2030 Agenda for Sustainable Development* (A/RES/70/1), 2015, p. 24; UN Conference on Sustainable Development, *A 10-year framework of programmes on sustainable consumption and production patterns*, 2012, p. 2

¹²⁷ UN General Assembly resolution 67/203, *Implementation of Agenda 21*, A/RES/67/203, February 27, 2013, https://digitallibrary.un.org/record/745120?ln=zh_CN.

¹²⁸ UNEP, *The 10 Year Framework of Programmes on Sustainable Consumption and Production*, <https://sustainabledevelopment.un.org/topics/sustainableconsumptionandproduction>.

¹²⁹ United Nations Industrial Development Organization. *What is CSR?*. URL: <https://www.unido.org/our-focus/advancing-economic-competitiveness/competitive-trade-capacities-and-corporate-responsibility/corporate-social-responsibility-market-integration/what-csr>



practices and total productivity techniques to processes, products and services to increase efficiency and reduce risks to humans and environment¹³⁰". Simply put, RECP is best understood as installing a virtuous cycle of improving the efficient use of natural resources (energy, water and materials), thereby reducing environmental degradation and improving the well-being of people. In turn, this enables more productive use of natural resources. RECP serves as a guiding principle for many activities undertaken by the United Nations Industrial Development Organization (UNIDO). The latter works in close cooperation with UNEP, notably to advance the principles of cleaner production¹³¹.

In 1994, both organizations launched the International Programme of National Cleaner Production Centres (NCPC), which operates in 63 states¹³². The NCPC aims to promote the best practices in resource management and to facilitate effective international collaboration. The program has operated in developing and transition countries, where awareness has been raised about the benefits of RECP to any industrial sector, as well as national experts have been trained. Furthermore, UNIDO and UNEP work with governments and the private sector to make them more economically competitive through the use of openly accessible "Environmentally Sound Technologies" (EST)¹³³.

NCPCs have now become a part of a network established in 2010 by UNIDO and UN Environment called RECPnet. This network comprises 70 providers of RECP services and covers 60 countries with developing and transition economies¹³⁴. It aims at the effective and efficient development, application and adaptation of RECP concepts, methods and practices in industry. Additionally, RECPnet commits to assist its members in the spirit of international collaboration and knowledge exchange. UNIDO and UNEP also work with the European Union, and the Regional Action Centre for Sustainable Consumption and Production (SCP/RAC) on the project Switchmed¹³⁵. The objective is to assist countries in the Mediterranean region to transition toward SCP both in the productive sector and civil society. To accomplish this, Switchmed demonstrates the potential of SCP by developing new business models while simultaneously creating new jobs. From 2014-2018, the UNIDO TEST methodology showed promising results, as investments in RECP has proven to be an effective mechanism in being resource-efficient, cost-effective and with a better environmental footprint. These results have helped generate national roadmaps¹³⁶ on how to

¹³⁰ Berkel, Rene. (2016). Resource Efficient and Cleaner Production for Competitive, Clean and Innovative Industry.

¹³¹ UNIDO, Promoting sustainable production and consumption in the Southern Mediterranean region, 2018.

¹³² UNIDO & UN Environment, Joint UNIDO-UNEP Programme on Resource Efficiency and Cleaner Production (RECP), p. 2; UNIDO, Annual Report 2017, 2017, p. vii.

¹³³ UNIDO & UN Environment, Joint UNIDO-UNEP Programme on Resource Efficient and Cleaner Production (RECP) in Developing and Transition Countries, 2009, pp. 7-8.

¹³⁴ UNIDO & UN Environment, RECPnet: The Global Network for Resource Efficient and Cleaner Production, 2015, pp. 2-3.

¹³⁵ UNIDO, Promoting sustainable production and consumption in the Southern Mediterranean region, 2018.

¹³⁶ United Nations Industrial Development Organization. *SwitchMed - Enabling the Switch to resource-efficient and circular economies in the Southern Mediterranean*. URL: <https://www.unido.org/our-focus-safeguarding->



address an important number of challenges, notably the rising energy and raw material costs, water consumption and waste management.

More recently, the High-Level Political Forum on Sustainable Development (HLPF) reviewed, in 2018, the implementation of SDG 12 on “sustainable production and consumption”. It notes that while progress has been made, “implementation efforts are seriously under-resourced”¹³⁷. Despite that the amount of natural resources per unit of economic value has decreased, the absolute amounts of natural resources used per year has increased¹³⁸. Coupled with the lack of coordination across and between governments with regard to their national implementation mechanisms, the HLPF raises concerns as this endangers efforts to reduce overall natural resource consumption. It further mentions that there is not enough compliance with international treaties on hazardous materials, such as the Stockholm Convention. In light of these issues, the review emphasizes multi-stakeholder partnerships, especially with the private sector because of the capital and technologies it possesses¹³⁹.

HLPF also discusses the need to provide greater support to the One Planet network (the network of the 10YFP on SCP), particularly in its One Plan for One Planet: Strategy 2018-2022. The One Planet network is an open partnership, meaning countries and all relevant actors are invited to join and actively participate¹⁴⁰. One Planet’s five-year strategy concentrates on SDG 12 by collaboratively supporting and accelerating the shift to SCP. To achieve this, there are four main objectives: creating an implementation mechanism for SDG 12, providing tools and solutions to help with the transition to SCP, leading a cohesive implementation of SCP, and demonstrating SCP’s environmental and social benefits¹⁴¹.

Energy in Sustainable Consumption and Production

Keeping SDGs 12 (Sustainable Consumption and Production) and 7 (Affordable and Clean Energy) in mind, mitigating and adapting to climate change are key challenges of the 21st century. At the core of these challenges is the question of energy and, more precisely, our overall energy consumption and our dependence on non-renewable resources. Globally, the use of energy represents by far the largest source of greenhouse gas emissions from human activities. Statistics indicate that about two thirds of global greenhouse gas emissions are linked to burning fossil fuels

environment-resource-efficient-and-low-carbon-industrial-production/switchmed-enabling-switch-resource-efficient-and-circular-economies-southern-mediterranean

¹³⁷ UN DESA, 2018 HLPF Review of SDGs implementation: SDG 12 -Ensure sustainable consumption and production patterns, 2018, pp. 1-2.

¹³⁸ *Ibid.*

¹³⁹ UN DESA, 2018 HLPF Review of SDGs implementation: SDG 12 -Ensure sustainable consumption and production patterns, 2018, p. 6.

¹⁴⁰ One Planet Network, One Plan for One Planet: 5 year strategy 2018-2022, 2018, p. 3.

¹⁴¹ *Ibid.*



for energy to be used for heating, electricity, transport and industry¹⁴². Therefore, it is necessary to achieve sustainable production and energy usage, especially from renewable sources. However, universal access to affordable, reliable and sustainable energy is yet to be implemented. In fact, 13% of the world (940 million people) do not have access to electricity in 2021¹⁴³, which is a need for poverty alleviation, economic growth and improved living standards.

It is well known that unsustainable production and energy usage have detrimental consequences not only on the environment, but also on the wellbeing of people. The problem lies in the world's dependence on raw materials. Between 2010 and 2017, there was a 17.4% increase in the global material footprint, which refers to “the amount of primary materials required to meet basic needs for food, clothing, water, shelter, infrastructure and other aspects of life”¹⁴⁴. It is one indication “of the pressure put on the environment to support economic growth and to satisfy the material needs of people.”¹⁴⁵ Furthermore, the global material footprint is not equally distributed: high-income countries’ material footprint is ten times higher than the low-income countries¹⁴⁶.

As previously mentioned, the fossil fuel industry’s continued consumption of coal, oil and gas is driving global warming to dangerous levels. Nonetheless, States continue to subsidize this industry at a reported total of over 400 billion dollars worldwide in 2018¹⁴⁷. To succeed in limiting global warming and the fulfilment of the SDGs, the world urgently needs to use energy efficiently while embracing clean energy sources. With that being said, the world is nevertheless making good progress on increasing access to electricity and improving energy efficiency. As part of the SDG 7 on Affordable and Clean Energy, the projected energy efficiency improvement for target 7.3 is at an average of 2.4% per year for 2017-2030¹⁴⁸. The International Energy Agency estimates that maximised energy efficiency could fully reach an improvement of 3.6% annually¹⁴⁹.

Clean renewable energy development will play a central role in achieving the emissions cuts required and carbon policy targets. As of now, most policies throughout the world focus on renewable electricity. Still, there remains a serious need for implementing policies regarding renewable sources in heating and transportation¹⁵⁰. Renewable energy represented a total of 24.1%

¹⁴² European Environment Agency. *Energy and climate change*. URL: <https://www.eea.europa.eu/signals/signals-2017/articles/energy-and-climate-change#:~:text=About%20two%20thirds%20of%20global,total%20EU%20emissions%20in%202015>.

¹⁴³ Our World in Data (2021). *Access to Energy*. URL: <https://ourworldindata.org/energy-access#:~:text=work%20on%20Energy-,Summary,cost%20for%20indoor%20air%20pollution>.

¹⁴⁴ United Nations, *The Sustainable Development Goals Report 2020*, <https://unstats.un.org/sdgs/report/2020/The-Sustainable-Development-Goals-Report-2020.pdf>, 2020, p. 48.

¹⁴⁵ United Nations, *The Sustainable Development Goals Report 2020*, <https://unstats.un.org/sdgs/report/2020/The-Sustainable-Development-Goals-Report-2020.pdf>, 2020, p. 48.

¹⁴⁶ *Ibid.*

¹⁴⁷ *Ibid.*, p. 49.

¹⁴⁸ UN Statistics Division *et al.*, *Tracking SDG 7: The Energy Progress Report 2019*, Washington DC, <https://trackingsdg7.esmap.org/data/files/download-documents/2019-Tracking%20SDG7-Full%20Report.pdf>, 2019, p. 10.

¹⁴⁹ *Ibid.*

¹⁵⁰ United Nations Statistic Division *and al.*, *Ibid.*, p. 74.



out of all heat generation in 2016. Over half of the renewable energy derived from biomass materials¹⁵¹. As biomass is mainly used for heat and electricity purposes, the fumes emanating from burning biomass is toxic and dangerous for the planet and can cause negative health impacts for humans. On another note, transforming the transport industry to run on renewable energy is vital for a more sustainable society. However, policymakers currently face multiple challenges in the implementation of renewables such as biofuels, electric vehicles and renewable energy-based synthetic fuels¹⁵². Biofuels and electric vehicles remain expensive as the current infrastructures are inadequate for such production.

Prospect policies have hinted towards more competitive prices for biofuels, as well as subsidies and support for the distribution and use of biofuels. A transition towards biofuels produced from non-food crop feedstocks would be key in the fight for a reduction of greenhouse gas emissions¹⁵³. It is worth noting that significant progress has been made since 2010 on various aspects of SDG 7, but progress has been unequal across regions. More than one billion people indeed gained access to electricity globally over the last decade. However, data shows that residents from the sub-Saharan African region accounted for 75% of those without access to electricity¹⁵⁴. Additionally, COVID-19's financial impact has made basic electricity services unaffordable for 30 million more people, the majority located in Africa¹⁵⁵. Energy affordability has been an important issue around the world. The Regulatory Indicators for Sustainable Energy (RISE) estimates that the poorest 40% of households in 26 access-deficit countries spent more than 5% of their monthly household expenditure on only 30 kilowatt-hours (kWh)¹⁵⁶. At a rate of 0.15\$/kWh, 30 kWh costs 4.50\$ per month in addition to the installation fee that accounts for over 100\$. The average daily income of the 10% poorest world population, mostly residing in the sub-Saharan region, is approximately 1.90\$¹⁵⁷. Certain steps, such as the implementation of subsidies to build electricity connections, have already been taken to improve electricity accessibility and to reduce the financial burden on poor households. Moreover, electrification through decentralized renewable-based solutions gained momentum. The number of people connected to mini grids has more than doubled between 2010 and 2019, growing from 5 to 11 million people¹⁵⁸. However, under current and planned

¹⁵¹ *Ibid.*

¹⁵² *Ibid.*, p. 75.

¹⁵³ BR&Di. *Increasing Feedstock Production for Biofuels*. URL: https://afdc.energy.gov/files/pdfs/increasing_feedstock_revised.pdf

¹⁵⁴ *Ibid.*

¹⁵⁵ IEA (2020). *The Covid-19 crisis is reversing progress on energy access in Africa*. URL: <https://www.iea.org/articles/the-covid-19-crisis-is-reversing-progress-on-energy-access-in-africa>

¹⁵⁶ UN Statistics Division *and al.*, *Ibid.*, p. 4

¹⁵⁷ United Nations, *World Economic Situation Prospects*, https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/WESP2020_FullReport.pdf, 2020, p. 22.

¹⁵⁸ Africa Renewal (2021). Universal Access to Sustainable Energy Will Remain Elusive Without Addressing Inequalities. URL: <https://www.un.org/africarenewal/news/universal-access-sustainable-energy-will-remain-elusive-without-addressing-inequalities>



policies and further affected by the COVID-19 crisis, an estimated 660 million people would still lack access to electricity in 2030, most of them in Sub-Saharan Africa¹⁵⁹.

Efforts are being made to improve the world's sustainable energy production, as outlined in the 10YFP. These are important steps to achieve SCP in general, but especially in regards to energy. Nevertheless, multiple problems remain unresolved regarding SDG 12 as well as SCP policies. Due to the lack of high-quality reliable data, mainly from small-scale communities, SDG 12 remains one of the least monitored goals¹⁶⁰. As HLPF report mentions, technical assistance on data collection must be a high priority point, considering it remains a challenge to evaluate States participating in SCP policies¹⁶¹.

Water in Sustainable Consumption and Production

Two billion people lack safe drinking water.¹⁶² Often referred to as “blue gold”, water is likely to become one of the key resources of the 21st century. The water-food-energy nexus is central to sustainable development. Demand for all three is increasing, driven by a rising global population, rapid urbanization and economic growth. Water distribution on Earth is also a fundamental topic: less than 3% of the world's available water is drinkable (considered “freshwater”) and more than half of it is locked up in ice and in the ground. A little more than 1% of all freshwater is surface water, which serves most of life's needs.¹⁶³

In the same vein, the insufficiency of water causes food insecurity and sanitation issues. Some 2.2 billion people around the world do not have safely managed sanitation services. Gaps in access to water supply and sanitation, as well as pollution are combining in many places to make water one of the greatest risks to poverty eradication, economic growth and sustainable development¹⁶⁴. The consequences of such stress are local, national, regional and global in today's interconnected world. Moreover, the agricultural sector is by far the biggest user of freshwater. According to estimates for the year 2000, agriculture accounted for 67% of the world's total freshwater

¹⁵⁹ IEA. *Access to electricity*. URL: <https://www.iea.org/reports/sdg7-data-and-projections/access-to-electricity>

¹⁶⁰ United Nations, *An expert group meeting in preparation for HLPF 2018: Transformation towards sustainable and resilient societies*, United Nations Division for Sustainable Development Department of Economic and Social Affairs, <https://sustainabledevelopment.un.org/content/documents/19990EGMSDG12advanceuneditedoutcomeFORWEB9July2018.pdf>, May 2018, p. 2.

¹⁶¹ United Nations, *An expert group meeting in preparation for HLPF 2018: Transformation towards sustainable and resilient societies*, United Nations Division for Sustainable Development Department of Economic and Social Affairs, <https://sustainabledevelopment.un.org/content/documents/19990EGMSDG12advanceuneditedoutcomeFORWEB9July2018.pdf>, May 2018, p. 2.

¹⁶² United Nations, *Goal 12: Ensure sustainable consumption and production patterns*, Sustainable Development Goals, URL address: <https://www.un.org/sustainabledevelopment/sustainable-consumption-production/>.

¹⁶³ *Ibid.*

¹⁶⁴ Centers for Disease Control and Prevention. Global WASH Fast Facts. URL: https://www.cdc.gov/healthywater/global/wash_statistics.html



withdrawal, and 86% of its consumption¹⁶⁵. Although a large percentage of the water returns from the field after irrigating crops, often it has been changed and is carrying soil and dissolved compounds. This means dissolved contaminants will eventually find their way into lakes, rivers, or the ocean. Other activities that present risks to water include manufacturing, forestry, mining, waste disposal and runoff from urban areas.

Developing countries are most affected by water shortages and poor water quality. Around 71% of all illnesses in the developing world are linked to inadequate water and sanitation conditions¹⁶⁶. The decade 2018-2028 has been declared by the UN as the Water Action Decade. The aim is to “bring a greater focus to sustainable development and a risk-informed integrated management of water resources for the achievement of social, economic and environmental objectives”¹⁶⁷. Moreover, UNEP has been working towards better access to water. As SDG 6 mentions¹⁶⁸, water use efficiency must be improved for developing countries by 2030¹⁶⁹. The goal not only addresses the issues relating to drinking water, sanitation and hygiene, but also the quality and sustainability of water resources worldwide. Despite numerous achievements, such as an increase from 28% in 2000 to 45% in 2017 relating to the global proportion of people using safely managed sanitation services¹⁷⁰, there are some difficulties that still lie ahead. A number of reports state poor policy implementation, staff shortages, inadequate funding and the limited impact of aid money as important obstacles for advancing SDG 6 around the world¹⁷¹.

Furthermore, hydropower is recognized as an essential renewable source of energy¹⁷². It is the single largest renewable electricity source, providing 16% of world electricity at competitive prices¹⁷³. Hydropower contributes to decarbonising the energy mix and often provides other benefits such as water supply, flood and drought control. In addition, water reservoirs can contribute to energy storage. Surplus electricity generation can be used to pump water into a reservoir, which can be released to generate electricity when needed¹⁷⁴. The United Nations Symposium on Hydropower and Sustainable Development took place in Beijing from 27-29 October 2004 and, after three days of discussion, concluded with the adoption by consensus of the

¹⁶⁵ UNESCO. World Water Resources. URL: <https://unesdoc.unesco.org/ark:/48223/pf0000112671>

¹⁶⁶ WHO. *Fact sheet: Drinking Water*, 2019. URL: <https://www.who.int/news-room/fact-sheets/detail/drinking-water>

¹⁶⁷ BCIT. SDG 6: Clean Water and Sanitation. URL: <https://www.bcit.ca/sustainability/sdgs-at-bcit/sdg-6-clean-water-and-sanitation/>

¹⁶⁸ Which emphasizes Clean Water and Sanitation.

¹⁶⁹ United Nations. “Goal 6: Clean water and sanitation”, 2020, *United Nations Environment Programme*, <https://www.unenvironment.org/explore-topics/sustainable-development-goals/why-do-sustainable-development-goals-matter/goal-6>.

¹⁷⁰ Centers for Disease Control and Prevention. Global WASH Fast Facts. URL: https://www.cdc.gov/healthywater/global/wash_statistics.html

¹⁷¹ United Nations. “The Sustainable Development Goals Report” (2021). p. 45-7. URL: <https://unstats.un.org/sdgs/report/2021/The-Sustainable-Development-Goals-Report-2021.pdf>

¹⁷² *Ibid.*

¹⁷³ Iha. *Facts about hydropower*. URL: <https://www.hydropower.org/iha/discover-facts-about-hydropower>

¹⁷⁴ *Ibid.*



Beijing Declaration on Sustainable Development. Essentially, the Declaration states that there is a need to develop hydropower that is socially, economically, and environmentally sustainable¹⁷⁵.

Finding applicable ways to alleviate water stress and secure sustainable water supply has been a monumental challenge for the international community. With that being said, the application of the United Nations Framework Classification for Resources (UNFC) can help define the environmental-socio-economic viability and technical feasibility of projects to develop resources. Sources, such as hydropower, could not only improve the view of energy sustainability but also greatly facilitate the economic evaluation of projects¹⁷⁶.

Conclusion and Further Research

UN bodies, Member States and actors from various sectors of society work closely together to advance SCP principles. There are a variety of different concepts and approaches, but all with the same aim: allowing economic development to take place without causing harm to human or environmental health and preserving the planet for coming generations¹⁷⁷. As mentioned, unsustainable energy usage has negative impacts on the planet and the well-being of people. Moreover, neglecting the environmental impact of economic development will prevent future economic development from being able to lift more people out of poverty, and could lead to increased conflicts over scarce resources. Many ways in which resource efficiency and waste and pollution management could be improved already exist, but the challenge lies in implementation, especially given the many challenges faced by states in different regions, such as a lack of knowledge transfer, resources, and coordination between stakeholders¹⁷⁸. Fully implementing the recommendations contained within the 10YFP will not only be a significant step toward accomplishing SDG 12, but the entirety of the 2030 Agenda.

Delegates are encouraged to reflect upon how to best balance the competing demands of poverty reduction and environmental preservation. Taking into consideration that all Member States have unique challenges related to safeguarding their environment, delegates should investigate how can we promote the implementation of UNEP policies. How should those international regulatory frameworks interact with those on a regional and national basis? How can UNIDO continue to strengthen its cooperation with partners such as UN bodies, governments and the private sector? How can Member States, UN bodies and all sectors of society involved continue to contribute to the execution of the 10YFP? Finally, how can the indicators contained within the SDGs be translated into tangible policies on an international, regional and national level?

¹⁷⁵ United Nations. "Beijing Declaration on Hydropower and Sustainable Development". URL: https://www.un.org/esa/sustdev/sdissues/energy/hydropower_sd_beijingdeclaration.pdf

¹⁷⁶ UNECE. (2019). "United Nations Framework Classification for Resources. URL: https://unece.org/DAM/energy/se/pdfs/UNFC/publ/UNFC_ES61_Update_2019.pdf

¹⁷⁷ Hoballah & Averous, Goal 12—Ensuring Sustainable Consumption and Production Patterns: An Essential Requirement for Sustainable Development, 2015.

¹⁷⁸ *Ibid.*



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