

The Very Nature of Economic Sectors



flickr.com/palazzoehigi

Biodiversity – the variety of life on Earth, including species and ecosystems – is essential for sustainable development and human well-being. It underpins our food, fibre, and water supplies, mitigates and provides resilience to climate change, supports human health, and provides jobs in agriculture, fisheries, forestry and many other sectors. Yet the threat of biodiversity loss and ecosystem collapse is cited as one of the top global risks in the coming decades¹. Without effective measures to conserve and sustainably use biodiversity, the 2030 Agenda for Sustainable Development will not be achievable.

¹ See www.weforum.org/reports/the-global-risks-report-2018

Biodiversity and the 2030 Agenda for Sustainable Development

Given the need for biodiversity and healthy ecosystems to achieve the 2030 Agenda, it is not surprising that many sustainable development goals (SDGs) include targets that reflect their important role. Biodiversity and ecosystems are included not only in SDG 14 on oceans and coasts, and SDG 15 on terrestrial ecosystems, but also in many other goals and targets. For an analysis of the role of biodiversity for the achievement of the SDGs, published jointly by the Secretariat of the Convention on Biological Diversity (CBD), the Food and Agriculture Organization of the United Nations, the World Bank, the United Nations Environment Programme, and the United Nations Development Programme, visit:

www.cbd.int/development/doc/biodiversity-2030-agenda-technical-note-en.pdf

Mainstreaming Biodiversity in Sectors and Cross-Sector Policies

Parties to Convention on Biological Diversity have increasingly focused on the need to “mainstream” biodiversity in the sectors and cross-sectoral policies that have the greatest relevance to biodiversity, considering both dependencies on biodiversity and potential adverse impacts. At its thirteenth meeting, the Parties adopted a decision on the mainstreaming of biodiversity with a particular focus on the agriculture, forestry, fisheries and tourism sectors (decision XIII/3). Parties will consider the mainstreaming of biodiversity in the sectors of energy and mining, infrastructure, manufacturing and processing, and health during the 2018 UN Biodiversity Conference taking place from 13-29 November 2018 in Sharm El-Sheikh, Egypt, including as part of the fourteenth meeting of the Conference of the Parties (COP14), the High-Level Segment, as well as in the Business and Biodiversity Forum.

Key Sectors to be Discussed at the 2018 UN Biodiversity Conference

Energy and Mining Sector²

Energy and mining are dependent on ecosystem services, either directly for their operations (e.g. water) as well as through the protection of infrastructure (e.g. roads, pipelines, dams, operational structures) from erosion effects, landslides, and natural disasters such as flooding and storm surges. For example, wet-cooled concentrated solar power plants require significant water for cooling and hydropower relies on the flow regime of natural river systems that are in some cases part of watersheds protected by national parks. The production of feedstocks for biofuels is however perhaps the sector with the greatest dependency on biodiversity for services such as pollination, disease control, and water supply. Under future climate change scenarios, factors such as increased water scarcity and frequency of extreme weather events are likely to amplify these dependencies.

Infrastructure Sector³

The infrastructure sector is dependent on ecosystem services, including the provision of water for construction (e.g. water required for the preparation of mortar, cement or other materials), and protection from landslides or flooding. Another example is the networks of habitats that support functioning ecosystems and populations of species, such as wildlife corridors and flyways, that have been shown to be important to maintain certain infrastructure services.⁴

Manufacturing and Processing Sector⁵

Manufacturing industries have multiple dependencies on ecosystems; e.g., water extraction from an aquifer or river at a factory, and ecosystems acting as recipients of air, water and soil pollution. Some manufacturers rely on the supply of renewable, biological raw/transformed materials (e.g., fibres, foods) while others use genetic resources and associated traditional knowledge, including the pharmaceutical, agriculture, industrial biotechnology, cosmetics, botanicals, and food and beverage sectors.⁶ These dependencies on ecosystems can be diverse and complex, contingent on the type of raw material extracted or produced for manufacturing transformation by raw material extractors and producers.

Health Sector⁷

According to the World Health Organization, over 23% of the global burden of disease is attributable to avoidable environmental factors.⁸ Biodiversity and ecosystem services are fundamental to human health. They contribute to the regulation of multiple ecosystem functions and processes which support nutrition and food security, clean air, the quantity and quality of fresh water, spiritual and cultural values, climate regulation, pest and disease regulation, and disaster risk reduction.

² CBD/SBI/2/4/Add.3, 26 May 2018. See <http://bit.ly/sbi2-4-add3>

³ CBD/SBI/2/4/Add.5, 18 May 2018. See <http://bit.ly/sbi2-4-add5>

⁴ Benedict, M. A. and McMahon, E. T. (2006). *Green Infrastructure: Linking Landscapes and Communities*. Island Press

⁵ CBD/SBI/2/4/Add.4, 27 May 2018. See <http://bit.ly/sbi2-4-add4>

⁶ A series of briefs and factsheets on these sectors have been prepared by the Secretariat in the Series "Bioscience at a Crossroads". See www.cbd.int/abs/resources/factsheets.shtml

⁷ CBD/SBSTTA/21/5, 12 October 2017. See <http://bit.ly/sbstta21-5>

⁸ See <http://bit.ly/whoPHEprev>

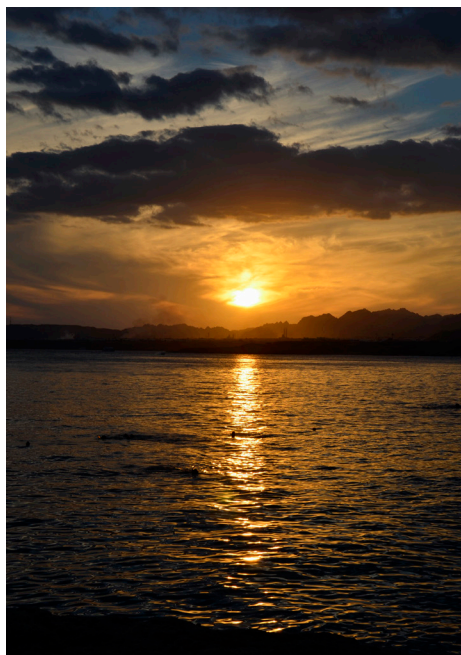


UN Biodiversity Conference

Investing in Diversity for People and Planet

COP14-COPMOP9-COPMOP3

SHARM EL-SHEIKH, EGYPT 2018



The State of Biodiversity

Despite the important linkages between biodiversity and the SDGs, biodiversity continues to be lost at an accelerated rate, largely due to human activities. A review of progress toward achieving the Aichi Biodiversity Targets as presented in the 2014 Global Biodiversity Outlook, projected that out of 53 target elements, only 5 were on track to be reached by 2020. Further, the recent regional assessment reports by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) found that biodiversity is in decline in all regions of the world.⁹ The above sectors can have significant negative impacts on biodiversity, and therefore, sustainable development. For instance, in the area of health, land use change, overharvesting, and habitat alteration and other drivers of biodiversity loss contribute to the emergence and prevalence of both non-communicable and communicable diseases, potentially posing major global health threats which cost hundreds of thousands of lives and tens of billions of dollars annually.¹⁰

Transforming Investment

According to research by Credit Suisse and McKinsey, approximately U.S.\$ 300-400 billion is needed annually to preserve healthy terrestrial and marine ecosystems; however, currently, just U.S.\$ 52 billion/year is flowing towards such projects.¹¹ However, the finance sector is increasingly realizing the benefits of investments in biodiversity, and the risks posed by failing to consider impacts on biodiversity.

The next UN Biodiversity Conference will be held on 13-29 November 2018 in Sharm El-Sheikh, Egypt.

⁹ Source: www.ipbes.net/outcomes (Unedited advance Summary for Policymakers of the four regional assessments of biodiversity and ecosystem services).

¹⁰ See www.cbd.int/health/stateofknowledge

¹¹ Conservation Finance, Rockefeller Foundation. See <https://bit.ly/2NMWQxx>

The Importance of Biodiversity and Ecosystems for Livable Cities

Seventy per cent of the world population will be urban by 2030, increasing from 55 per cent today. By 2030, this growing urban population will require the construction of more than the same amount of infrastructure humanity has built up until today. Two-thirds of infrastructure spending is expected to occur in the global South¹², with urban land areas located in or near biodiversity hotspots expected to increase fourfold.¹³ It is critically important that planning for expanding cities includes careful consideration of the potential impacts on surrounding ecosystems.

Food and nutrition, water, health and recreation: none of these can be ensured for urban citizens without biodiversity. And did you know?...

- Providing freshwater for cities is ten times cheaper through wetlands and forests than through water treatment plants.
- Being close to parks enhances people's immunity and psychological health, and reduces the incidence of non-communicable diseases like diabetes and obesity.
- Urban trees regulate temperature and clean city air, and natural permeable spaces reduce flood risk.
- To bring nature into cities, green infrastructure such as parkways and connected natural or restored areas, vertical and roof gardens, and bioswales can make the difference for liveable cities.
- Natural solutions for urbanization also attract innovative businesses and investments, and generate jobs
- The health benefits that we derive from direct contact with ecosystems range from improving immune function, mood, and concentration to reducing stress and enhancing the benefits of physical exercise.¹⁴
- Mental and physical health have been proven to increase in urban residents less than 100 m away from a park and urban real estate up to 50 m from a park has an average of 20 per cent higher value.¹⁴

¹² See <https://bit.ly/2uduJzM>

¹³ See <http://wcr.unhabitat.org>

¹⁴ 'Connecting Global Priorities: Biodiversity and Human Health—A State of Knowledge Review, World Health Organization and the Convention on Biological Diversity'. See www.cbd.int/health/SOK-biodiversity-en.pdf



Towards 2030 and Beyond

Against this backdrop, the Convention's mandate to launch a new global framework for biodiversity post-2020 is imperative for realizing bold and transformative actions in the way humans engage with nature. During the 2018 UN Biodiversity Conference, Parties will launch a process to develop such a new global framework, to be adopted in Beijing in 2020. A new approach is urgently needed if we are to achieve the 2030 Agenda for Sustainable Development.



United Nations Decade on Biodiversity

More information:
www.cbd.int
secretariat@cbd.int