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# **Biodiversity in Latin America and the Caribbean**

## **Elements for Session 2: Biodiversity in the 2030 Agenda**

## Background

1. Biodiversity is essential to life. Biodiversity is known as the variety of life forms including genes, species and ecosystems on Earth. It provides goods and services of significant importance and proportions for human's subsistence, development and well-being, as underscored by Rio+20.

2. Recent years has witness a growing recognition in the value of biodiversity and its potential sustainable use to address food security, social and economic growth, and an overall transformation of natural capital to serve national, regional and global economies. It is for this reason that emphasis is being placed in understanding the linkages between biodiversity, ecosystem services, human health, and development.

3. In Latin America and the Caribbean contains over 50% of the world's biodiversity. It includes some of the most species-rich biomes on Earth, such as lowlands forests, coral reefs, mangroves and wetlands, making the region one of the most endowed in terms of natural capital wealth: trees, water, minerals and fisheries. Around a quarter of the world's tropical forests are found in Latin America and the Caribbean, providing a critical element of the global climate regulation system.

4. Additionally, the region counts with some of the most megadiverse countries and is home to the biodiversity hotspot of the Amazon Basin, which in itself is of significant global importance in terms of ecosystem services, such as carbon sequestration and climate regulation, as well as local and regional cultural, recreational and eco-tourism values.

5. In a region with an approximate population of 595 million inhabitants, it is understandable to see the challenges faced in balancing the promotion of human development with the preservation of natural capital and sustainable use of natural resources.

### Sustainable Development Goals (SDGs) and 2030 Development Agenda

6. Biodiversity is represented in the Sustainable Development Goals as Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainable manage forest, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

7. While Goal 15 provides a critical element underpinning the importance of biodiversity, it is the holistic approach in the context of the wider 2030 Agenda for Sustainable Development and SDGs which merits recognition of the role of biodiversity in the framework of sustainable development.

8. For instance, it is undeniable that Goal 15 impacts directly or indirectly the delivery of other SDGs such as food security (Goal 2), water (Goals 6), economic growth (Goal 8) and climate (Goal 13). This understanding implies that efforts to scale up climate change adaptation and mitigation, as well as the delivery of improved water and ocean governance depends heavily on how the international community responds to the challenges of physical alteration and destruction of habitats, and the unprecedented loss of biodiversity and ecosystems.

### Oceans and coastal ecosystems

9. Oceans cover 70% of the earth's surface and produce over half of the oxygen in the atmosphere that humans breathe. It is considerable how much humans depend on the vast variety of ecosystems services that oceans, coast and seas provide on a daily basis in terms of food, energy, climate regulation, transport and recreation.

**10.** Various regions around the world are seeing the importance of the oceans as a resource that can offer a path for development. Approximately 350 million jobs are linked to oceans: the international trade in fish products spans 85 nations and involves an estimated USD 102 billion per year; and about USD 9 billion is made in ecotourism related to coral reefs.

**11.** In a context where scientists point out that only 5% of the world's oceans has been explored and its potential to supply living and non-living resources are high, it is understandable that countries are seeking to exercise their sovereignty over their territorial waters (200 nautical miles).

**12.** In the Caribbean, the total area of the Caribbean States (ACP) amount to 484,716 km<sup>2</sup> while the total area of their Exclusive Economic Zone (EEZ) is 2,205,407 km<sup>2</sup>. This means that 82% of the area occupied by States is within the maritime space that contains different ecosystems, living and non-living resources.

**13.** Fisheries in the Caribbean is an important contributor to the Gross Domestic Product (GDP) and also an important source of livelihoods, employing approximately 182,000 persons, most of whom are socio-economically disadvantaged and least educated, rural poor and women. In the rest of Latin America fisheries is a major contributor to the economy, food security and employment, both directly and indirectly. Some countries are references to determine global quotas, availability and state of fisheries, as is the case of the anchovy in the South-eastern Pacific.

**14.** However, the health of oceans is at a crossroad. Today, more than 30 per cent of the world's fish stocks are overexploited, depleted or recovering from depletion. Pollution has caused over 400 dead zones across 95,000 square miles of ocean. An estimated 46,000 pieces of plastic are afloat on every square mile of ocean. Human impacts on coastlines and oceans have destroyed 20 per cent of mangroves, 30 per cent of sea grass beds and 20 per cent of coral reefs.

**15.** The scientific community coincides that oceans and coastal ecosystems are suffering perhaps more than any other ecosystem from principally 4 drivers of change: pollution, overfishing, habitat loss and climate change.

**16.** In Latin America and the Caribbean these drivers are damaging its oceans and coastal ecosystems. Rapid urbanization of coastal areas is an ongoing challenge, as is the pollution from nutrient run-offs due to the expansion of agriculture, wastewater from cities, and increasingly the problem of marine litter, including micro-plastics, which derives from insufficient waste management infrastructure. Additionally, the introduction of invasive species is also having a negative effect on the marine and coastal environment in the region.

**17.** In terms of climate change, the oceans and coastal ecosystems of the region are being impacted in the form of ocean acidification and the bleaching of coral reefs, particularly in the Caribbean, impacting the productive nature of these ecosystems.

**18.** In a growing population set to increase from 7 billion today to 9 billion by 2050, the pressure and impacts are likely to intensify unless the international community commits to the sustainable management of these fragile ecosystems.

### **Biodiversity and Climate Change**

**19.** Climate change and biodiversity are part of a same cycle in which alterations in one affects the other – climate change is a driver of biodiversity loss, and the loss of biodiversity and ecosystems contribute to climate change.

**20.** Unique ecosystems and the biodiversity that they house are being affected by rising temperatures, reduced rainfall and in marine and coastal areas, by rising sea levels and ocean acidification. It is estimated that 25% of all species on land might be threatened with extinction by 2050 due to climate change, which would be the biggest threat to biodiversity, even more so than habitat loss from human activities, which at the moment remains the main driver.

**21.** Signs of a warming climate can be appreciated in various biomes; in the Arctic through evidence in melting of glaciers, permafrost and sea ice; in the tropics coral reef bleaching and in various regions extreme weather events such as storms, floods droughts and heat waves. The consequence on biodiversity of these climatic variabilities is an area of ongoing investigation. However, what is known is that biodiversity has evolved over centuries to live within certain temperature ranges and exceeding those parameters will have an impact on the physical and geographical occurrence of certain species. In certain species exceeding the temperature ranges and the resulting changes in their habitats will result in extinction.

**22.** The consequence of loss of biodiversity and interruptions in the delivery of ecosystem services are affecting numerous communities around the globe, where the provision of goods and services are in a steep decline, particularly in the most vulnerable countries. In certain regions we are witnessing threats to food security both on land and in the marine environment where unprecedented fisheries decline are raising alarm bells amongst the scientific community and more recently in policy makers.

**23.** In a scenario where climate change will exponentially increase the loss of biodiversity and ecosystems it will be critical to understand the impacts that these changes will have on human well-being.

#### **Implementation of Aichi Targets**

**24.** The Latin America and the Caribbean region is making significant efforts to implement national policies and legislations that would allow plans and actions on the ground to achieve the 20 Aichi Biodiversity Targets. Particularly, recognition is made to the regional and national efforts to reach Target 11 on increasing protected areas by 2020 to 17% in terrestrial and inland water, and 10% of marine and coastal areas; Target 16 on the operationalization of the Nagoya Protocol on Access to Genetic Resources; and Target 17 on the implementation of effective, participatory and updated national biodiversity strategy and action plan.

**25.** At the same time, it is noticeable that there are significant differences and various degrees of success among countries in the region in reaching the internationally agreed targets. While capacities have been built in many areas such as design and management of protected areas, payment for ecosystem services, community-based and private conservation approaches, REDD+ for carbon, remote sensing of forest change and eco-tourism, it is also evident that some countries in the region have taken a downslide moving away from the desired Aichi Targets.

#### **Illegal Wildlife Trade (IWT)**

**26.** The illegal trade in wildlife is currently one of the most profitable forms of criminal activity. It is causing severe security, social, economic and environmental threats to many countries, therefore hampering their efforts towards sustainable development, the rule of law and the implementation of the 2030 Development Agenda.

**27.** The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) has been very active in the Latin American and Caribbean region in trying to control the causes of legal and illegal wildlife trade. Much of the illegal trade is in skins of reptiles and mammals, but there is also considerable trade in live birds, reptiles and other species. Furthermore, illegal trade in species such as sea cucumber, sea turtle eggs, shark fins and the iconic jaguar, continues in the region.

**28.** In addition to wildlife trading, illegal trade in timber and wood creates around USD 30 billion worldwide per year, with 32 million acres of natural forest logged illegally every year. In the Latin America and Caribbean region it is one of the most prolific illegal trade industries in natural resources.

**29.** Some of the major challenges in the region relate to the enforcement of national legislation which can be both complex and difficult to prosecute, or lacking. However, advancement is taking place through the creation of regional networks of environmental prosecutors and environmental rule of law i.e. Red de Fiscales Ambientales de Centroamerica y Republica Dominicana (ROAVIS); Red Latino Americana de Ministerio Publico Ambiental.

**30.** In order to face this problem, several responses have been proposed: promote enabling conditions to reduce the Consumer demand; development of Legal tools to support deterrence, transparency, legal clarity, strengthened environmental legislation, compliance and awareness, in support to enforcement agencies; facilitate alternatives and sustainable livelihoods; strengthen environmental management for sustainable development; and increase investment in capacity building of and technological support to national law of the enforcement agencies, among others.