



# SCOPING DOCUMENT FOR THE RAPID ASSESSMENT OF BIODIVERSITY AND ECOSYSTEM SERVICES IN THE AMAZON REGION



## SCOPING DOCUMENT

# RAPID ASSESSMENT OF BIODIVERSITY AND ECOSYSTEM SERVICES IN THE AMAZON REGION

Final Version  
December 10, 2021

## I. Introduction

The Amazon Cooperation Treaty Organization (ACTO) under its Biological Diversity Program for the Amazon Basin/Region duly approved by the Member Countries, attaches great significance to the conduction of a regional assessment report about the status of biological diversity and ecosystem services<sup>1</sup> in the Amazon Region<sup>2</sup>. This comprehensive report will be prepared under the methodology of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), of which the Member Countries of ACTO are part, and will encompass biophysical, economic, social, and cultural perspectives. It will also support the implementation of the objectives of the Convention on Biological Diversity (CBD) which are related to biodiversity conservation and the sustainable use of its components, and the fair and equitable sharing of the benefits resulting from the use of genetic resources. Moreover, the report will be aligned, where possible, with the CBD's management tools<sup>3</sup>, and socio-environmental processes led by the United Nations such as the United Nations Development Program, the United Nations Environment Program, and the World Food Program. The knowledge, roles, and participation of indigenous and local communities<sup>4</sup> in the management of biological diversity and ecosystem services will be included along with an analysis of the role of institutions in determining access, control, allocation, distribution of the components of nature and its contributions to people. Likewise, this report will be nourished by studies, conducted and in progress, from the governments, research institutes, regional networks for technical cooperation<sup>5</sup>, NGOs and academia, including the sixth National Reports on Biological Diversity to the CBD, and other forms of knowledge, to share experiences and knowledge to ensure a good quality analysis. Currently, the IPBES<sup>6</sup> has conducted a global and regional assessment of the Americas on the state of biological diversity and ecosystem services, in addition to other inputs from other national, regional, and global initiatives.<sup>7</sup>

In this context, the ACTO Member Countries are promoting a regional evaluation on biological diversity and ecosystem services in the Amazon Region, as an important

---

<sup>1</sup> The ecosystem services include the benefits of them ecosystems/environmental functions/environmental services

<sup>2</sup> Amazonian Basin/Region

<sup>3</sup> Within the management instruments, the Post-2020 Global Biodiversity Framework will be considered, once it is approved

<sup>4</sup> Indigenous Peoples and local communities also include other tribal communities.

<sup>5</sup> Includes the Latin American Network for National Parks-Redparques and the Trinational Conservation and Sustainable Development Program.

<sup>6</sup> Topics related with IPBES and its conceptual framework: <https://www.ipbes.net/>

<sup>7</sup> In Brazil, a national report on biodiversity and ecosystem services and reports on pollinators and ecological restoration of landscapes were prepared under the IPBES format. In June 2021, the National Evaluation on Biodiversity and Ecosystem Services was launched in Colombia under the IPBES methodology. On the other hand, and as a source of information, there is another regional initiative for the Amazon in charge of the Scientific Panel for the Amazon (SPA).

input to guide decision-making and public policies at multiple levels considering Amazonian stakeholders and territories, including different tools for territorial planning based on analyzed and current information, in accordance with their respective internal legal and administrative regulations and recommendations for coordinated actions in border areas, under the regional context.

## **II. Scope, geographic delimitation, utility, assumptions, and others**

### **A. Scope**

1. According to the overall scope of the regional and subregional assessments of IPBES<sup>8</sup>, this assessment will decide the status and trends regarding biological diversity and Nature's contributions to people<sup>9</sup>, and their interlinkages, opportunities, and effectiveness of responses to the threats to biodiversity and ecosystem services that will impact on the human well-being, life quality and socio-economic and cultural development. It will also include the effectiveness of responses, particularly related to the Strategic Plan for Biodiversity 2011-2020 and its Aichi Biodiversity Targets, along with the National Biodiversity Strategies and Action Plans under the CBD. The assessment will address biological diversity and ecosystem services, and it will be linked to the process initiated by the countries towards the Post-2020 Global Framework of the CBD, and the implementation the Amazonian Strategic Cooperation Agenda<sup>10</sup> (ASCA), along with its programs and projects related to biodiversity. The Assessment will be based on secondary information, including traditional and ancestral knowledge of indigenous peoples and local communities.

2. The assessment report for the Amazon Region will focus on ethnic and cultural diversity, biodiversity, and ecosystem services, as it is a complex and heterogeneous region for its various geological, geomorphological, climatological, hydrological, biological, anthropic, sociocultural, political, economic, and territorial processes. Its megadiversity, multiculturalism, and variety of ecosystems, species richness and high endemism gives the Amazon region global prominence; in this sense, it is one of the wealthiest areas in terms of socio-biodiversity and it is home to approximately 10% of the planet's biological diversity. Inhabited for more than 10 thousand years<sup>11</sup>, currently, 511 indigenous peoples co-exist in the region and more than 66 peoples live in voluntary isolation and initial contact and/or natural state and/or initial contact.

---

<sup>8</sup> A key objective of the IPBES Intergovernmental Platform on Biodiversity and Ecosystem Services assessments is to "Strengthen the science-policy interface on biodiversity and ecosystem services". The overall scope of the IPBES (IPBES/3/6/Add.1) regional assessments is to "assess the status and trends regarding biodiversity and ecosystem services and their interlinkages, the impact of biodiversity and ecosystem services and threats to them on human well-being.

<sup>9</sup> In the conceptual framework of IPBES that will guide the analyses, reference is made to ecosystems and nature's contributions to people.

<sup>10</sup> The ASCA is the strategic and guiding instrument of cooperation initiatives and activities to achieve sustainable development in the Amazon Region. Its implementation horizon of eight years began in 2011 and ended in 2018. The ASCA 2020-2030 is currently being updated.

<sup>11</sup> Archaeological evidence from a sector, Beniânia biogeographic province (Bolivia), shows signs of human groups of hunter-gatherers from early Holocene, between 10,850. (Lombardo et al. 2020) to 10.600 years (Capriles et al. 2019).

3. It is worth emphasizing that the assessment will include, particularly, the reality of the boundary areas<sup>12</sup> of the ACTO Member Countries, as there is an important interaction and relationship among these populations; as well as the processes and dynamics of social, cultural, economic, environmental, political, and sectorial nature in these areas. The relevance of connectivity between terrestrial and aquatic ecosystems in the region will be addressed, considering the biological/ecological corridors that make up a biogeographic dynamic of biological diversity between the different jurisdictional arrangements of the lands and territories of indigenous peoples and local communities, along with other territorial planning figures.

4. The assessment shall take duly account of the relevant legal frameworks of the ACTO Member Countries related to biodiversity and ecosystem services, and especially those frameworks that incorporate inclusive social, institutional and legal pluralism into the mechanisms of social participation, delegation of functions and/or transfer of competences to local actors in the management of biodiversity and ecosystem services; including the political-administrative organization of the ACTO Member Countries as well as the use of concepts, terminologies, and territorial visions in the management of natural resources which are typical of indigenous peoples and local communities.

5. Environmental education and dissemination of information are essential for a good environmental/territorial governance and, therefore, the adequate management of biological diversity and ecosystem services and the strengthening of the Amazonian cultural identity. In this sense, the assessment must identify alternatives for education, generation and sharing of environmental information, supported by scientific research and traditional knowledge promoting public awareness of conservation and sustainable development for the Amazon Region.

## **B. Geographic delimitation**

6. The Amazon Region covers 44% of the land area of South America; it contains the largest tropical forest in the world and is the largest hydrographic basin on the planet. The Amazon Region is made up of eight Amazonian countries<sup>13</sup>: Bolivia, Brazil, Ecuador, Colombia, Guyana, Peru, Suriname, and Venezuela.

7. The ACTO Member Countries have their own definitions of the Amazonian areas within their territories, and these definitions and delimitations have been grouped into what we know as the Amazon Region, for the purposes of developing this assessment. These Amazonian areas refer to:

---

<sup>12</sup>They are areas where conservation or transformation activities of land use play an important role in maintaining the integrality and representativeness of ecosystems, as well as in environmental governance, shared and coordinated management of the territory, and displacement/mobility of people throughout those areas

<sup>13</sup>French Guyana is an overseas territory of France that is home to Amazonian ecosystems, but as it is not part of ACTO, it will not be considered in this evaluation.

<i>Country</i>	<i>Political-administrative Division or Territory</i>
Bolivia	It comprises the entire Department of Pando and the Amazonian territories of the Department of La Paz, Beni, and Santa Cruz.
Brazil	It comprises all the States of Acre, Amapá, Amazonas, Pará, Rondônia, Roraima, Tocantins, Mato Grosso and Maranhão.
Ecuador	It comprises the Provinces of Sucumbíos, Orellana, Napo, Pastaza, Morona Santiago y Zamora Chinchipe.
Colombia	It comprises the Departments of Amazonas, Caquetá, Guainia, Guaviare, Putumayo, Vaupés, Sur del Meta, Sur de T Vichada, Cuenca Oriental de Nariño, and Cauca.
Guyana	It covers the entire territorial extension of Guyana.
Peru	It comprises the Amazonian departments.
Suriname	It covers the entire territorial extension of Suriname.
Venezuela	It corresponds to the Rio Casiquiare/Rio Negro Basin.

8. Owing to the Amazon Region's size, varied physiography and diverse ecosystems and landscapes, the regional assessment may consider other subdivisions within this region according to the authors criteria and bearing in mind the complex socio-ecological system that represents the Amazon Region, which should be analyzed through multiple scales and dimensions, crossing political-administrative divisions.

### **C. Utility**

9. The strategic utility of this assessment provides timely and rigorous information for decision-making, strengthening the science/policy/society interface from the participatory contribution of experts from the Amazon Region and with the sovereign participation of the ACTO Member Countries, in accordance with the provisions of Article IV of the Amazon Cooperation Treaty, which states that “*the Contracting parties declare that the exclusive use and utilization of natural resources within their respective territories is an inherent sovereignty right of each State and that the exercise of this right shall not be subject of any restrictions other than those arising from International Law*”. This report will provide recommendations based on scientific evidence to contribute to the conservation and sustainable use of the biodiversity

components in light of the three CBD<sup>14</sup> objectives and the future agreement of the Post 2020 Global Biodiversity Framework. Likewise, within this collective, interdisciplinary, and plural forum, a technical and argumentative debate will be promoted focused on the construction of common socio-environmental and legal standards under biological diversity and ecosystem services management, in the perspective of being a regional contribution to the future of the Global Framework for Biodiversity post 2020. This assessment will also strengthen the results of the PIBES Global and Regional Assessment report of biodiversity and ecosystem services of the Americas within the Amazon Region, linking all the existing information and analysis on the subject in the ACTO Member Countries. The work carried out in the region within the framework of the implementation of the three CBD objective will become visible. In addition, it will be performed during an important moment for the Amazon Region such as the complete consolidation of a vision of sustainable development in the Amazon where biodiversity, nature's contributions to people (NCP)<sup>15</sup> and the contribution of the region to global climate stability are essential.

10. Likewise, once the rapid assessment is completed, the ACTO Member Countries, owners of the results, will be invited to follow up on the implementation of the results, supporting possible future assessments. Likewise, they can participate in the activities identified by the Communication and Disclosure Strategy for the Assessment, in order to socialize the findings at different levels and stakeholders and implement actions that influence decision-making.

#### **D. Assumptions**

11. The main assumption is about information available to conduct the assessment for the entire Amazonian territories of the ACTO Member Countries. The information includes at least data related to assessments of the ecosystem services of some Member Countries and about knowledge and wisdom of indigenous peoples and local communities. Likewise, in accordance with the IPBES evaluation format, the assessment will be developed by experts from the Member Countries; accordingly, it is assumed that regional experts in various disciplines will be involved, including those experts in knowledge about indigenous peoples and local communities, enabling an equitable territory and gender distribution of experts in this process. Another fundamental assumption is the commitment and political will of the national, subnational, and local governments of the ACTO Member Countries to follow the entire assessment process and its subsequent approval.<sup>16</sup>

#### **E. Strategic partnership**

12. To promote synergies, the assessment for the Amazon Region will be coordinated, to the extent possible, with similar processes developed in the region, as well as with

---

<sup>14</sup> The Convention on Biological Diversity (CBD) is an international legally-binding treaty with three main goals: conservation of biodiversity; sustainable use of biodiversity; and the fair and equitable sharing of the benefits arising from the use of genetic resources.

<sup>15</sup> Nature's contributions to people include ecosystem services, ecosystem benefits/environmental functions/services.

<sup>16</sup> According to the Work Plan the group of experts will deepen in the scope document's assumptions.

other ongoing initiatives that may contribute to this study. Also, to the extent possible, approaches with the private and the public<sup>17</sup> sector will be promoted, in addition to alliances with the academic sector and regional institutes specialized in research and analysis of biological diversity in the ACTO Member Countries. Key entities or the existing regional networks for technical cooperation will be identified to provide information, scientific, technical, and financial support, as well as to assist in the dissemination and communication of the assessment's results, such as the Convention on Biological Diversity (CBD) and the Intergovernmental Science-Policy Platform for Biodiversity and Ecosystem Services (IPBES). It is worth mentioning the financial support of the Federal Ministry for Economic Cooperation and Development of Germany (BMZ) to carry out this assessment within the framework of a technical cooperation with ACTO Member Countries.

## **F. Operational structure**

13. The Permanent Secretariat of ACTO (PS/ACTO) will be in charge of coordinating the assessment with the support of the Alexander von Humboldt Biological Resources Research Institute (IAvH). This Institute will provide technical and scientific advice observing the methodological and conceptual principles of IPBES. For this purpose, a Scientific Committee will be constituted by prominent academics from ACTO Member Countries (one man and one woman per each Member Country), who will follow and supervise the evaluation. Likewise, the assessment co-chairs, main authors, chapter coordinators, and review editors will be appointed to conduct the assessment based on this scoping document. The authors (experts) will participate in a personal and voluntary capacity, not formally representing the institutions or governments that have nominated them.

14. Following the process and work schedule, along with the IPBES methodology, the ACTO Member Countries will participate in the preparation and approval of the documents developed within the framework of the Rapid Assessment of Biological Diversity and Services Ecosystems in the Amazon Region. The Scientific Committee and the experts will carry out an independent assessment, in coordination and with the monitoring of the governments of the ACTO Member Countries, which will assume an important role in the entire evaluation process, starting with the appointment of the Committee's members. Regarding the scoping document, they will participate in the identification and appointment of experts to carry out the review of the draft scoping report and its final approval. Concerning the Rapid Assessment document, they will nominate the experts that will participate in the assessment, as well as in the review of the draft assessment, in the acceptance of the assessment's technical document, and in the approval of the summary by the decision-makers.

---

<sup>17</sup>Alliances with the private sector will be promoted where the criteria of transparency and accountability should prevail, and the conservation of natural resources be promoted.

### III. Chapters Outline

15. The assessment for the Amazon Region will be composed of (7) chapters, with the following scope:

16. **Chapter 1. Introduction and context.** This chapter will present the rationale and importance of the regional evaluation, together with the main questions that must be answered, the assumptions and limitations. Likewise, the relationship among this assessment, ACTO's strategic agenda, along with ongoing actions will be established. An explanation of the IPBES conceptual framework and relevant definitions will also be included. In this chapter, the main features of the Amazon Region and the units of analysis of the assessment will be presented, highlighting its main aspects (which aspects will be covered by the assessment, and which will not). Finally, the methodological and technical aspects, as well as the structure of the assessment will be presented. The geographical scope of the Rapid Assessment will be determined according to the Amazonian territories and the definitions and delimitations established by the Member Countries of ACTO, in accordance with point B of this document. Co-chairs and chapter coordinators of the assessment will be the authors of this chapter.

17. **Chapter 2. Status, trends and dynamics of biological diversity and nature's contributions to people.** This chapter will assess the past and current trends along with the future dynamics of biodiversity and ecosystems. It will also present the impacts of trends and dynamics on the assets and benefits at multiple scales of nature in the Amazon Region, highlighting the availability, abundance, and richness of biological resources for the survival of indigenous ancestral peoples and biomes connectivity. The countries share the Amazon Region so the biodiversity of biological populations, which move transnationally, is affected by various productive activities, by overexploitation and by the particular policies of each country, affecting the stability of the biological diversity of the region. The chapter will present a current overview of the Amazonian biological diversity and the knowledge gaps, mainly the gaps in geographic information that are relevant for the consolidation of inventories, monitoring and evaluations of the region's biological diversity. Restoration is a relevant issue, not only in terms of the restoration of ecosystem services, but also for indigenous peoples and local communities, in relation to their cultural assets such as festivals, traditions and ways of living. The restoration chain can be analyzed as an economic development opportunity, the creation of sustainable landscapes, and the improvement of the food security of these populations. The trends in land use change will also be considered in this chapter, identifying the main drivers of this change, deforestation increase, the growth of the agricultural frontier, monocultures, and their impact on biodiversity (genetic, biological, and cultural). The main benefits of ecosystem and cultural services will be identified and how the changes are affecting the quality of life and socio-economic development in different areas (local, territorial, and regional). Similarly, the multiple assessment of biological diversity, ecosystems and ecosystem services will be addressed as vital resources for the survival of indigenous peoples and local communities; and, to recognize their contribution to national economies, with special consideration for local economies and with respect to the livelihoods of indigenous peoples and local communities. The main future trends and prospective analysis will be outlined, with



special attention to aspects related to the role of biotechnology, bioeconomy<sup>18</sup>, and innovation in the future of the Amazon, identifying the position of indigenous peoples and local communities regarding their incursion into their territories; the benefits they would provide to the populations of the region; as well as the negative impacts and respect for ancestral knowledge and territorial rights of indigenous peoples and local communities; in addition to the search for a sustainable and equitable model. In this chapter an assessment will be performed focused on sustainable development, recognizing the complementarity among social, economic, environmental, and cultural spheres that interact and form the complexity of the Amazon Region, as well as the multiple values and knowledge systems, including indigenous peoples and local communities, and their rights over this knowledge according to the Nagoya Protocol. The analysis of biological diversity will consider both natural biological diversity and species domesticated over time by the autochthonous peoples, as a unique contribution to increase the region's biodiversity, with great potential for sustainable development. Articulation with Chapter 5 is recommended when discussing future trends in biodiversity and ecosystem services.

**18. Chapter 3. Drivers of threats, losses, opportunities, and transformation of nature.** In this chapter, the identification and a systemic analysis will be performed of the status, drivers of threat, losses, opportunities, and transformation of the biological diversity, in natural protected areas<sup>19</sup> or outside them, and its main connections with social, cultural, political, and economic variables, allowing the evaluation of regional challenges as well as the identification of species and ecosystems in real threat situation within these protected areas. The direct drivers (habitat conversion, change in land use, climate change, pollution, species introduction, non-sustainable exploitation of resources, illegal trade, environmental crime, biopiracy and improper access to traditional knowledge of indigenous peoples and local communities) and indirect drivers (socio-political, demographic, economic, technological, and cultural aspects, among others) are considered dynamic elements of a network of interdependent variables. Ecosystem services, as well as the pressures, are distinguished between the types of environments, and they are configured differently in the regional fractions (endemic areas). In this chapter, the Amazon in its different nuances needs to be revealed to guide more effective and plural public policies. This chapter will also address knowledge about the thresholds of ecosystem resilience and the achievement of the Aichi and Sustainable Development Goals (SDG) of the 2030 Sustainable Development Agenda. A comprehensive look will be provided in large landscapes connecting natural protected areas of ACTO Member Countries, identifying models from the exposed variables.

**19. Chapter 4. Dialogue of knowledge and traditional knowledge associated with biodiversity.** This chapter seeks to examine the concepts of biological diversity and ecosystem services from the perspectives and context of indigenous peoples and local communities in the Amazon Region, as well as examine the dialogue process of knowledge and how it is foreseen in the future. The knowledge and wisdom systems of

---

<sup>18</sup>Bioeconomy is understood as the economy of biological diversity, biotrade, the economy of Mother Earth, among others.  
Natural protected natural areas and other effective area-based conservation measures (OECMs)

indigenous peoples, peasants, natives, Afro-descendants, and others, will be taken into consideration in actions and perceptions related to biodiversity conservation and sustainable use, including the fair and equitable sharing of the benefits of the use of traditional knowledge associated with biodiversity, in accordance with current national legislation on ACTO Member Countries and nature's contributions to people. Community organization aspects; decision-making; management models (for example, community protocols) in relation to traditional knowledge and mechanisms for the protection, use and exploitation of intellectual property tools over traditional knowledge; among others, will be analyzed, with a view to strengthening the contribution of indigenous peoples and local communities to the knowledge of use and benefits of biological diversity components, all this as preventive and/or positive measures on the use of intellectual property that is currently promoted by the World Intellectual Property Organization-WIPO. On the other hand, the chapter will address the loss of cultural diversity, including traditional languages as an irreversible loss of knowledge. Also, a synthesis of the threats to knowledge and wisdom will be presented from areas of environmental, economic, and social pressures and territorial rights and self-representation included in the United Nations Declaration on Indigenous Peoples. This analysis will have a special gender consideration with the role of women as holders and transmitters of traditional knowledge and the conservation of genetic diversity. An evaluation will be conducted related to the experience and response of indigenous peoples and local communities on the management of biodiversity and ecosystems. The chapter will recognize the spatial and territorial management of indigenous peoples and local communities that have allowed genetic diversification; and it will consider indigenous peoples and afro-descendants territories and land ownership of local communities to identify water, soil, forest, and biological diversity management practices under ancestral and local knowledge.

20. **Chapter 5. Interactions between nature and society in the present and future: the path from sustainable development to the “good living.”** This chapter includes a holistic, multilevel, and multi-actor analysis of the set of flows and interactions between nature and society, considering the analysis of the previous chapters as input, and taking advantage of the prospective studies and scenarios developed for the Amazon Region. The analysis of demographic and socio-economic trends, such as the literacy rate and infant mortality and effective inter-regional communication among the Amazonian countries and their capitals, will allow the identification of sustainable scenario models for the region. Likewise, the ecosystem services generated by the Amazon will be considered for the benefit of the cities and societies living there in terms of food, water for human consumption and air quality, and other contributions of nature to people. In particular, the chapter will examine current and future trends in the relationship between society and nature for sustainable development and the paradigm of “Good Living” in the Amazon Region. An analysis will be performed considering the different realities of each ACTO Member Country on issues that transform the society-nature relationship, such as mining, agro-industry, livestock, migration, among others.

21. **Chapter 6. Policies, institutions, and governance at different scales and sectors.** This chapter aims to analyze and assess the interaction, influence, and mediation of policies<sup>20</sup>, planning instruments, initiatives, and cross-border cooperation agreements in the relationships between society with biological diversity and the contributions of nature to people in the Amazon Region, identifying their implementation success and weaknesses and/or lessons learned. It will also consider, particularly, regional policies and national regulations that affect other countries in the region. It will analyze the scope, conditions and roles assigned to society and local actors by public policies and regulations, influencing them favorably or unfavorably, resulting in effective social participation in the management of biological diversity and ecosystem services. The analysis will provide information on how sectoral policies function as management incentives for the region and how markets may transform the landscape. The chapter must identify and analyze the application and fulfillment of the ethnic-territorial rights (lands, territory, and territorialities) of indigenous peoples and local communities with a differential focus on the public policies of ACTO Member Countries. A relevant topic for this chapter refers to territorial management, governability, and governance<sup>21</sup> among governmental and non-governmental institutions and indigenous peoples and local communities. Moreover, different options will be provided to policy-makers at the regional, national, subnational, and local levels, from results and findings of previous chapter related to the horizon of sustainable development for the Amazon Region, at different levels (regional, national, and local). The contribution to the fulfillment of the CBD objectives and the guidelines from its management tools will be taken into account. Among the main instruments to be analyzed are the Amazon Cooperation Treaty (ACT), the Amazonian Strategic Cooperation Agenda (ASCA), trinational or regional agreements in Amazonian national protected areas such as the Amazon Vision Program (from 2008 in force); Indigenous Life Plans; priority regional policies to support science and technology; innovation; land regularization; payment for environmental ecosystem services; extractive, economic (e.g. agriculture, mining, energy, infrastructure, development, land use, hydrocarbons, forestry, etc.) and ecological zoning (e.g. protected areas, indigenous reserves, AICAS, etc.); as well as other tools and inspection, command and control measures. The enabling environments and constraints regarding the adoption of policies, the experience acquired in the region and, in particular, the solutions and existing methods to ensure success will also be determined. This chapter will incorporate environmental monitoring in ecosystems of high ecological sensitivity and ecoregions strongly affected by deforestation, forest fires; and national and international financing, aimed at biological diversity and ecosystem services for the ecological rehabilitation of these areas and for evaluation in general. Finally, the chapter will identify environmental education alternatives for better management of biological diversity and ecosystem services.

22. **Chapter 7. Conclusions and recommendations.** From the previous chapters, along with its executive summaries and key messages, with special attention to the scenarios analyzed in the preceding chapter, this chapter will present the main

---

<sup>20</sup>Regulations such as environmental, development, land management, management of pollutants, invasive species, use of pesticides, mining, among others.

<sup>21</sup> Governance of natural protected areas and other effective area-based conservation measures, lands, forests, water, territorial.

conclusions and specific actions for the integrated management of biodiversity and ecosystem services, as a contribution to policy-makers, with a focus on regional management. It will also identify specific actions related to financing and financial sustainability, costs, and implementation, prior to an opportunity-cost analysis regarding these specific actions. Key and short messages will be provided for decision making. Finally, the information gaps found in the assessment will be identified.

#### IV. Process and working schedule

The table below proposes the assessment process and working schedule

YEAR	GENERAL PROCESS AND ESTIMATED SCHEDULE
2021	Constitution of the Scientific Committee, with the participation of official representatives and prominent academics of the Member Countries (designation by the Member Countries and the PS/ACTO (March 2021).
	Meeting of the Scientific Committee to learn about the context of the Assessment and the IPBES methodology (May 2021)
	The PS/ACTO is calling to nominate experts that will be the authors (report co-chairs, coordinating head authors, head authors, and review editors) to conduct the assessment based on the results of the scoping document approved by the governments (includes experts and representatives of indigenous peoples, local communities, and other tribal communities (June-August 2021).
	Second meeting of the Scientific Committee for the selection of authors of the assessment (August - September 2021).
	First meeting of authors to learn about the context of the Assessment and following steps (October 2021).
	External review of the scoping document by authors and members of the Scientific Committee (October 2021).
	External review of the scoping document and adjustments for approval

<b>YEAR</b>	<b>GENERAL PROCESS AND ESTIMATED SCHEDULE</b>
2021	of authors and Scientific Committee (November 2021).  External review of the scoping document by authors and the Scientific Committee (December 2021).
	Translation of the scoping document (December 2021)
	Chapter meetings of authors and coordinators to identify the index and the groups of authors that will develop the agreed contents, the delivery schedule, and selection of the reviewing author of the chapter (October-November 2021)
	The report co-chairs, coordinating head authors, and other head authors will prepare an initial draft report and progress in the preparation of the summary for policy-makers (November 2021 to March 2022).
2022	Report co-chairs, coordinators, official representatives of the Member Countries and other authors considered relevant will meet with experts and representatives of indigenous peoples and other tribal communities to share information and insights on specific topics related to the report (January-February 2022).
	External review of the report's first draft and the summary for policy-makers by the members of the Scientific Committee, co-chairs, chapter coordinators and other experts (March 2022).
	External review of the first draft of the assessment technical document and corresponding adjustments to be reviewed by the authors (May 2022)
	Review authors and editors, with members of the Scientific Committee, will meet to prepare the report's final draft and will progress on the draft summary for policy-makers (September-October 2022).
	Final version of the assessment technical document and external review

<b>YEAR</b>	<b>GENERAL PROCESS AND ESTIMATED SCHEDULE</b>
2022	of the first draft of the summary document for policy makers (October 2022).
	The document for decision makers will be translated into the ACTO official languages and submitted to governments for review and approval (November 2022).
	Launching of the Assessment's technical document and the summary for policy-makers (December 2022).

