## Annex II to decision IPBES-10/1

## Scoping report for a methodological assessment of integrated biodiversity-inclusive spatial planning and ecological connectivity

# I. Scope, rationale, timeline, geographical coverage and methodological approach

## A. Scope and rationale

1.      The methodological assessment of integrated biodiversity-inclusive spatial planning and ecological connectivity will address the use and change in use of land, inland waters and sea, including areas beyond national jurisdiction. The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) *Global Assessment Report on Biodiversity and Ecosystem Services* identified land-use change as the first direct driver of biodiversity loss for terrestrial and freshwater ecosystems, and sea-use change as the second direct driver for marine ecosystems. The assessment will provide options for avoiding land and sea use change that negatively affects biodiversity and options for improving planning for effective conservation, restoration and sustainable use of nature and its contributions to people across spatial and temporal scales, with due attention paid to different regional and national situations and to the need to support sustainable livelihoods.

2.      The assessment will be directly relevant to the goals and targets of the Kunming-Montreal Global Biodiversity Framework. It will also support the implementation of the 2030 Agenda for Sustainable Development and its Sustainable Development Goals and inform other relevant multilateral environmental agreements, processes and efforts, including the Convention on the Conservation of Migratory Species of Wild Animals and the Convention on Wetlands of International Importance Especially as Waterfowl Habitat.

3.      The assessment will cover methods, guidance, tools, scenarios, models, data, knowledge and capacity-building for integrating biodiversity considerations into and promoting connectivity (both structural and functional) in spatial planning, across sectors and scales. It will also cover lessons learned and best practice for identifying, restoring and enhancing ecological connectivity, focusing on how ecological connectivity contributes to biodiversity conservation, restoration, sustainable use and management, as in the case of migratory species, for example.

4.      The assessment will look at participatory approaches to spatial planning, including those involving Indigenous Peoples and local communities, with particular attention paid to the needs of developing countries.

5.      The assessment will address approaches for the identification of areas for conservation, sustainable use and restoration, including protected areas and other effective area-based conservation measures. It will also illustrate the potential of spatial planning to reduce trade-offs and increase synergies between different types of uses of land, inland waters and sea waters in order to simultaneously achieve a range of global goals, particularly those related to biodiversity, food, poverty, water, health and climate change.

## B. Timeline

6.      The assessment will be carried out following the fast-track approach for thematic and methodological assessments.[1]

## C. Geographical coverage

7.      The assessment will address all scales, from local and national to global.

## D. Methodological approach

8.      The assessment will provide definitions of biodiversity-inclusive spatial planning and ecological connectivity. For the purpose of the scoping report, biodiversity-inclusive spatial planning will be understood as the integration of biodiversity considerations into spatial planning, defined as a method or process for analysing and allocating the spatial and temporal distribution of activities in a

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[1] See decision IPBES-3/3, annex I.

given environment in order to achieve various objectives, including ecological, social and economic objectives.[2]

9.     The assessment will consist of a summary for policymakers and six chapters, each with an executive summary of the key findings. It will identify key gaps in relevant knowledge and data.

10.     The assessment will draw on peer-reviewed literature, official national data and reports,[3] Indigenous and local knowledge, and a range of other sources in line with the procedures for the preparation of Platform deliverables[4] set out in decision IPBES-3/3. It will build on and complement previous and ongoing work of IPBES, including completed assessments.

11.     The assessment will present relevant case studies at various scales, as appropriate.

12.     The assessment will be consistent with the IPBES conceptual framework[5] and will fully consider Indigenous and local knowledge and different knowledge systems as well as multiple values and, in particular, the concept of systems of life.

13.     The assessment will be conducted by a balanced, interdisciplinary team of experts with expertise in spatial planning and ecological connectivity in relation to biodiversity and nature's contributions to people, in terrestrial (including inland waters) and marine systems. The expert team will encompass a diverse range of backgrounds (e.g., academia, government, industry and civil society) and disciplines (e.g., geography, ecology, conservation science, including restoration and protected areas, land and water systems science, spatial planning, urban planning, architecture, law, political science and economics).

14.     The following objectives will be implemented in the context of the assessment through collaboration between the experts conducting the assessment and the relevant task forces and technical support units: objective 2 on building capacity; objective 3 on strengthening the knowledge foundations, including objective 3 (a) on advanced knowledge and data and objective 3 (b) on enhanced recognition of and work with Indigenous and local knowledge systems; and objective 4 on supporting policy, including objective 4 (a) on advanced work on policy instruments, policy support tools and methodologies and objective 4 (b) on advanced work on scenarios and models of biodiversity and ecosystem functions and services.

## II.     Chapter outline

15.     **Chapter 1: Setting the scene: defining spatial planning in the context of biodiversity conservation, ecological connectivity and provision of nature's contributions to people** (*indicative length: 10,000 words*). Chapter 1 will describe the purpose of the assessment and the intended audiences. It will explain why ecological connectivity and spatial planning, as well as their interconnections, are important and how they can influence the development of a more sustainable future for all, including in support of groups in vulnerable situations, in particular Indigenous Peoples. The chapter will outline which and whose needs the assessment is intended to fulfil and the plan for ensuring that it does so. It will explain how the assessment plans to take into account different world views regarding the conceptualization of landscapes and seascapes and land ownership and tenure, including the findings of the IPBES *Methodological Assessment Report on the Diverse Values and Valuation of Nature*. It will introduce how the assessment links to the IPBES conceptual framework and which issues are assessed in the subsequent chapters.

16.     Building on the definition provided in paragraph 8 above, chapter 1 will further define spatial planning and in particular "biodiversity-inclusive" spatial planning, with particular attention to ecological connectivity as an essential component of what "biodiversity-inclusive" means, including the relevance of ecological connectivity to ecological resilience and adaptation to climate change. It will assess the role of private actors in spatial planning and ecological connectivity, and it will also include a definition of the concept of ecological connectivity. The chapter will explain the importance of biodiversity-inclusive spatial planning for addressing loss and degradation of biodiversity. It will introduce how spatial planning can reduce trade-offs and increase synergies between different types of land, inland water and sea use to ensure ecological connectivity and the conservation and sustainable

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[2] G. Metternicht (2017), Land Use and Spatial Planning: Enabling Sustainable Management of Land Resources, Springer Briefs in Earth Sciences.

[3] The assessment will be conducted following the IPBES Data and Knowledge Management Policy. Documentation of workflows as well as the data underlying the analysis in the report drafts will be made accessible during the review process.

[4] See decision IPBES-3/3, annex I.

[5] See decision IPBES-2/4, annex, and decision IPBES-5/1, sect. III, paras. 8 and 9.

use of biodiversity and its contributions to people. The needs of migratory and wide-ranging species, the need to maintain complex species communities and the need to support ecosystem processes such as predation, seed dispersal and the role of "keystone" species will be considered.

17.     Chapter 1 will introduce how the assessment plans to support the implementation of target 1 of the Kunming-Montreal Global Biodiversity Framework, on biodiversity-inclusive spatial planning, as well as target 2, on restoration, target 3, on protected areas and other area-based conservation measures, and target 4, on species conservation, where ecological connectivity is critical for maintaining and restoring genetic diversity. The chapter will also introduce the other targets of the Kunming-Montreal Global Biodiversity Framework that are concerned with spatial planning and connectivity. It will also contribute to the 2030 Agenda for Sustainable Development, especially Sustainable Development Goals 11, 14 and 15.

18.     **Chapter 2: Implementing target 1 of the Kunming-Montreal Global Biodiversity Framework on biodiversity-inclusive spatial planning** (*indicative length: 25,000 words*). Chapter 2 will focus on target 1 of the Kunming-Montreal Global Biodiversity Framework. It will highlight the importance of including biodiversity in all spatial planning (including urban planning) for conserving and enhancing nature and nature's contributions to people, including outside protected and restored areas, and the role of connectivity in enhancing the resilience of such areas in order to meet goal A of the framework. Chapter 2 will also focus on the role that spatial planning can play in relation to the elements of target 1 that refer to "effective management processes addressing land and sea use change" and in relation to bringing the loss of areas of high biodiversity importance, including ecosystems of high ecological integrity, close to zero by 2030, while respecting the rights of Indigenous Peoples and local communities and the achievement of the Sustainable Development Goals. It will explain the need to meet target 1 in order to meet other targets of the framework, including targets 2, 3, 8, 10 and 12, and will explain the interlinkages. The chapter will show how target 1 provides a spatial context for those other targets, and it will explore the importance of spatial planning for reducing trade-offs and increasing synergies between different uses of land (including inland waters) and sea in the context of the nexus among biodiversity, food, water, health and climate change, taking into account different economic activities and the wide range of sustainable practices available at the regional and national levels to scale up positive impacts.

19.     The chapter will take a landscape/seascape approach to exploring the various demands and interests involved as well as the interactions between them. It will assess how biodiversity-inclusive spatial planning influences biodiversity and nature's contributions to people. It will assess applications in different contexts, such as urban planning, protected area and ecological network planning, restoration planning, regional land use planning, marine and coastal planning, and other types of integrated spatial planning, including customary practices of Indigenous Peoples and local communities. The chapter will assess available methods and indicators for measuring progress in biodiversity-inclusive spatial planning and will, as necessary, provide options for other indicators to complement those of the monitoring framework for the Kunming-Montreal Global Biodiversity Framework.

20.     **Chapter 3: Implementing targets 2 and 3 of the Kunming-Montreal Global Biodiversity Framework, on restoration and protected areas and other area-based conservation measures** (indicative length: *25,000 words*). Chapter 3 will provide an overview of the areas under restoration and conservation; reflect on the translation of the related global targets at the national and local levels; and identify key priorities and challenges, including those related to the sustainable development priorities and challenges of each country. It will define what restoration means[6] in a changing world and examine methods that governments and others can use to identify the most important areas, corridors between areas, and other connectivity factors to be restored on land, in inland waters and at sea. The chapter will identify the types of restoration that are effective in recovering and enhancing biodiversity and ecological connectivity without affecting sustainable uses. It will identify approaches to adaptive management of the restoration process that direct conservation outcomes towards biodiversity protection, connectivity enhancement and the provision of nature's contributions to people through just and equitable planning and implementation processes. It will address the role of restoring dispersal and migration pathways in enhancing ecosystem resilience and supporting adaptation to climate change.

21.     As habitat restoration will often occur inside protected areas, the chapter will assess knowledge about spatial locations and types of interventions of relevance to protected areas' designations and management (supporting target 3) and to restoration actions (supporting target 2).

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[6] Considering the baseline included in decision 15/5 of the Conference of the Parties to the Convention on Biological Diversity.

It will take into account the effectiveness of types of protection and other effective area-based conservation measures when looking at how land and sea use can be effective in protecting biodiversity, including recognizing the role and contributions of Indigenous territories and traditional lands, as well as from other actors, according to national legislation. It will assess methods and indicators for measuring progress in areas under restoration and conservation and, as necessary, assess options for other indicators to complement those of the monitoring framework for the Kunming–Montreal Global Biodiversity Framework. The chapter will assess tools and strategies, as well as nature-based solutions and/or ecosystem-based approaches and Mother Earth-centric actions, among others, to promote sustainable livelihoods and income-generating opportunities arising from restoration, in order to ensure their sustainability and resilience.

22.     **Chapter 4: Maintaining, restoring and enhancing ecological connectivity** (*indicative length: 25,000 words*). Chapter 4 will assess the role and importance of ecological connectivity as a component of spatial planning that is vital for the functioning of ecosystems, the survival of wild animals and plant species, and genetic diversity and the enhancement of nature's contributions to people. The chapter will cover both structural and functional components of connectivity and its role in the context of a changing climate. It will address elements of goal A of the Kunming-Montreal Global Biodiversity Framework.[7] It will also address aspects of targets 2, 3[8] and 12[9] of the framework. The chapter will review the multiple definitions of connectivity in research into and implementation of spatial planning, building on a broad range of perspectives and inputs from different regions. A potential taxonomy of connectivity planning might include the main objectives considered, connectivity conservation (e.g., for migratory species, for meta-populations, for structural connectivity of habitats), and the geographic and temporal scales over which connectivity is measured. The chapter will provide an assessment of existing policy tools for designating, restoring and safeguarding corridors and ecological networks for connectivity. It will also consider existing and proposed ecological connectivity indicators for tracking progress towards relevant goals and targets of the Kunming-Montreal Global Biodiversity Framework. The chapter will assess the ways in which connectivity is accounted for in planning and assessment of area-based conservation, as bears relevance to targets 1, 2, 3 and 12 of the framework.

23.     **Chapter 5: Spatial planning for the future** (*indicative length: 20,000 words*). Chapter 5 will assess what scenarios of spatial planning tell us about synergies and trade-offs in the biodiversity-food-water-health-climate-energy nexus and how spatial planning could help improve synergies and reduce trade-offs. The chapter will examine different types of scenarios, in line with the IPBES *Methodological Assessment Report on Scenarios and Models of Biodiversity and Ecosystem Services,* that represent plausible futures for spatial planning in terrestrial, inland water and marine environments at all scales relevant to the implementation of the Kunming-Montreal Global Biodiversity Framework. Scenarios with high impact and low likelihood outcomes will also be explored. The chapter will build on the thematic assessment of the interlinkages among biodiversity, water, food and health, and in particular on the elements that address response options, including spatial planning, protected area networks (which may include ecological corridors), and measures for enhancing connectivity. The chapter will cover a wide range of direct drivers (e.g., climate change, land-, freshwater- and sea-use change, natural resource extraction, pollution and invasive alien species) and indirect drivers (e.g., demographic, economic, scientific and technological, sociocultural and institutional factors) of biodiversity change that are addressed in scenarios affecting or shaping how spatial planning occurs. It will also examine the role of improved ecological connectivity in mitigating the effects of those drivers.

24.     **Chapter 6: Creating an enabling environment for integrated biodiversity-inclusive spatial planning and ecological connectivity** (*indicative length: 20,000 words*). Chapter 6 will assess existing guidance and tools, methods, scenarios, models, data, knowledge and capacity-building for spatial planning and ecological connectivity. It will assess science-informed policies and governance at all levels, including transboundary governance, as appropriate, and including the role of Indigenous Peoples and local communities. The chapter will also explore the role of adaptive management in managing biodiversity over time. Analyses will focus on conservation, restoration and resource management planning and decisions that incorporate risk management and appropriate methods and tools for considering potential future climate conditions and adaptation costs, and that prioritize options for reducing vulnerability to environmental, social and economic impacts of various drivers of

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[7] "The integrity, connectivity and resilience of all ecosystems are maintained, enhanced, or restored…"

[8] "…effectively conserved and managed through ecologically representative, well-connected […] systems of protected areas and other effective area-based conservation measures…"

[9] "Significantly increase the area and quality and connectivity of, access to, and benefits from green and blue spaces in urban and densely populated areas sustainably…"

change. The chapter will also consider regulatory and financial instruments that support the planning and implementation of policies and actions that create an enabling environment. The chapter will identify and assess existing capacity and financial and technological gaps and constraints that hamper the implementation of spatial planning and ecological connectivity interventions, including the challenges of developing countries, and it will identify tools and pathways for bridging those gaps.

## III.    Timetable

| Date | Actions and institutional arrangements |
|---|---|
| **2024** | |
| Third quarter | The Multidisciplinary Expert Panel, through the secretariat, requests nominations of experts by Governments and other stakeholders |
| **2025** | |
| First quarter | The Multidisciplinary Expert Panel selects the assessment co-chairs, coordinating lead authors, lead authors and review editors, in line with the procedures for the preparation of Platform deliverables, including by implementing the procedure for filling gaps in expertise |
| Third quarter | First author meeting with the co-chairs, coordinating lead authors, lead authors, review editors and members of the Bureau and the Multidisciplinary Expert Panel who are part of the management committee for the assessment |
| **2026** | |
| First quarter | Meeting to advance the preparation of the summary for policymakers with the co-chairs, coordinating lead authors and members of the Bureau and the Multidisciplinary Expert Panel who are part of the management committee for the assessment |
| Second quarter | First external review (eight weeks) – draft chapters and draft summary for policymakers are made available for review by Governments and experts |
| Third quarter | Second author meeting with the co-chairs, coordinating lead authors, lead authors, review editors and members of the Bureau and the Multidisciplinary Expert Panel who are part of the management committee for the assessment |
| | Back to back with the second author meeting: meeting to advance the preparation of the summary for policymakers with the co-chairs, coordinating lead authors and members of the Bureau and the Multidisciplinary Expert Panel who are part of the management committee for the assessment |
| Fourth quarter | Additional external review of summary for policymakers (eight weeks) – draft of the summary for policymakers is made available for review by Governments and experts |
| **2027** | |
| First quarter | Online writing workshop to advance the preparation of the summary for policymakers with the co-chairs, coordinating lead authors and members of the Bureau and the Multidisciplinary Expert Panel who are part of the management committee for the assessment |
| Third quarter | Final review (aiming at eight weeks) – final drafts of the chapters and the summary for policymakers are made available for review by Governments |
| Fourth quarter | Consideration by the Plenary, at its fourteenth session, of the summary for policymakers for approval, and of the chapters for acceptance |
| | Communication activities in relation to the assessment (including fact sheets) |