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Item 10 of the provisional agenda*

**Requests, input and suggestions for additional elements
of the rolling work programme of the Platform up to
2030****Report on the prioritization of requests, input and suggestions for
additional elements of the rolling work programme of the
Platform up to 2030****Note by the secretariat****I. Introduction**

1. In paragraph 2 of decision IPBES-7/1, on the rolling work programme of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) up to 2030, the Plenary of IPBES decided to launch a call for further requests, inputs and suggestions regarding the work programme in time for consideration by the Plenary at its tenth session, and to consider at the same session the need for and timing of further calls.

2. In response to that decision, the Executive Secretary issued a formal call for further requests, inputs and suggestions regarding the rolling work programme of IPBES up to 2030 on 14 September 2022 (EM/2022/38). The secretariat received submissions containing requests from 10 Governments, 1 observer with enhanced participation¹ and 1 governing body of a multilateral environmental agreement. In addition, nine submissions with inputs and suggestions were received from relevant stakeholders, including from Indigenous Peoples and local communities and academic institutions. The secretariat has made those requests, inputs and suggestions available on the IPBES website in the form in which they were received.² An overview of all the requests, inputs and suggestions received is set out in annex I to document IPBES/10/INF/7.

3. In addition, in paragraph 8 of section II of decision IPBES-7/1, the Plenary decided to reconsider, at its ninth session, the requests, inputs and suggestions received in response to a formal call launched in July 2018, in time for consideration at that session, including for a second global assessment of biodiversity and ecosystem services and for an assessment on ecological connectivity, and requested the Executive Secretary to place the matter on the agenda of the ninth session. In paragraph 11 of decision IPBES-9/1, the Plenary requested the Multidisciplinary Expert Panel and the Bureau to prepare an initial scoping to form the basis of a fast-track assessment on ecological connectivity, with input from relevant multilateral environmental agreements and other organizations, taking into account the draft elements

* IPBES/10/1.

¹ In accordance with decision IPBES-5/4.

² Available at www.ipbes.net/requests-received-ipbes-work-programme.

related to a thematic assessment of connectivity, as well as the outcomes of the resumed fifteenth meeting of the Conference of the Parties to the Convention on Biological Diversity, for consideration by the Plenary at its tenth session. In paragraph 12 of the same decision, the Plenary decided to consider, at its tenth session, requests, inputs and suggestions for a second global assessment of biodiversity and ecosystem services and an assessment on ecological connectivity, based on the initial scoping, as well as any requests, inputs and suggestions received in response to the call that would be issued in accordance with paragraph 2 of decision IPBES-7/1.

4. The Multidisciplinary Expert Panel and Bureau have considered and prioritized the requests, inputs and suggestions in line with the procedure set out in decision IPBES-1/3 and prepared a report containing a prioritized list of topics for consideration by the Plenary at its tenth session, as described in the present note.

5. The methodological approach followed by the Panel and the Bureau to prioritize the requests, inputs and suggestions is outlined in section II; the rationale for the grouping of the requests, inputs and suggestions into topics is set out in section III; and the prioritization of the requests, inputs and suggestions by the Panel and the Bureau is explained in section IV. Considerations regarding future calls are set out in section V. Annex I sets out a suggested timeline; annex II an initial scoping report for a second global assessment; and annexes III and IV initial scoping reports for two further prioritized topics.

II. Methodological approach to prioritization

6. The methodological approach used to prioritize the requests, inputs and suggestions received was based on the approach followed to prepare the draft work programme for the period 2014–2018 and the draft work programme up to 2030, set out in documents IPBES/2/3 and IPBES/7/6/Add.1, respectively. Requests were analysed by the Panel and the Bureau during the joint part of their twentieth meetings, held online from 28 March to 3 April 2023.

7. Noting that many of the individual requests, inputs and suggestions covered similar or related broad topics, the Panel and the Bureau worked to identify the broad topics addressed by the various submissions. The outcome of that work was the grouping of all submissions into five topics, which are described in section III.

8. The Panel and the Bureau then proceeded to prioritize those five topics in accordance with the following 10 criteria, which are also set out in paragraph 7 of decision IPBES-1/3, on the procedure for receiving and prioritizing requests put to the Platform:

- (a) Relevance to the objective, functions and work programme of the Platform;
- (b) Urgency of action by the Platform in the light of the imminence of the risks caused by the issues to be addressed by such action;
- (c) Relevance of the requested action in addressing specific policies or processes;
- (d) Geographic scope of the requested action, as well as issues to be covered by such action;
- (e) Anticipated level of complexity of the issues to be addressed by the requested action;
- (f) Previous work and existing initiatives of a similar nature and evidence of remaining gaps, such as the absence or limited availability of information and tools to address the issues, and reasons why the Platform is best suited to take action;
- (g) Availability of scientific literature and expertise for the Platform to undertake the requested action;
- (h) Scale of the potential impacts, and potential beneficiaries of the requested action;
- (i) Requirements for financial and human resources, and potential duration of the requested action;
- (j) An identification of priorities within multiple requests submitted.

9. Special attention was paid to the urgency of action by the Platform (criterion (b)) and the relevance to specific policies or processes (criterion (c)), in particular to the Kunming-Montreal Global Biodiversity Framework and the 2030 Agenda for Sustainable Development, including the Sustainable Development Goals.

10. The Multidisciplinary Expert Panel and the Bureau also recalled the indicative timeline for possible future assessments up to 2030 set out in the annex to document IPBES/9/12 (and reproduced in

annex I to this document) and associated considerations, concluding that the time left until 2030 would allow for a second global assessment of biodiversity and ecosystem services and up to three fast-track assessments. The Multidisciplinary Expert Panel and the Bureau based their conclusion on established IPBES practice that, in principle, no more than three assessments should be prepared at any point in time and only one assessment should be considered by the Plenary at any one session, and on the earlier suggestion by the Panel and the Bureau that one intersessional period be allocated between the decision to undertake an assessment and its start, in order to leave time to establish the technical support unit and select experts, and to allow assessment expert groups to make full use of the time allocated for their assessments.

11. In terms of activities requested to address the proposed new topics, all the requests received asked for an assessment. The Multidisciplinary Expert Panel and the Bureau propose that all topics be addressed with activities implementing five objectives of the IPBES rolling work programme up to 2030: objective 1: assessing knowledge; objective 2: building capacity; objective 3: strengthening the knowledge foundations; objective 4: supporting policy; and objective 5: communicating and engaging.

12. The outcome of the prioritization is set out in section IV.

III. Grouping of requests, inputs and suggestions

13. Document IPBES/10/INF/7 sets out a compilation of the requests, inputs and suggestions received, along with details on how they were addressed by the Multidisciplinary Expert Panel and the Bureau.

14. The Panel and the Bureau were able to group most of the requests, inputs and suggestions into five topics, referred to as topics (a) to (e).

A. Topic (a): second global assessment of biodiversity and ecosystem services, and associated work (implementing objectives 1 to 5)

15. Requests for the development of a second global assessment of biodiversity and ecosystem services were received in response to the first call related to the IPBES work programme up to 2030, issued in July 2018. As is mentioned in paragraph 3 above, the Plenary, at its ninth session, decided to consider those requests at its tenth session. Additional requests, inputs and suggestions regarding a second global assessment, received in response to a second call, included the following:

(a) A request from the Conference of the Parties to the Convention on Biological Diversity, set out in the annex to its decision 15/19,³ to prepare a second global assessment of biodiversity and ecosystem services; the request specified that the assessment should, among other things, support Governments and all stakeholders in implementing the Convention on Biological Diversity and the Kunming-Montreal Global Biodiversity Framework; support the Convention on Biological Diversity in assessing progress in the achievement of the 2030 targets and towards the 2050 goals of the Kunming-Montreal Global Biodiversity Framework; provide the scientific and technical basis for the follow-up to the Kunming-Montreal Global Biodiversity Framework after 2030; be comprehensive and broadly similar in scope to the first assessment; address the three objectives of the Convention on Biological Diversity in a balanced and integrated way; and cover the status of and trends in biodiversity and ecosystem services and nature's contributions to people over the past, present and future, using quantitative and qualitative models and scenarios covering terrestrial, inland water and marine and coastal biodiversity;

(b) A similar request suggesting that the second global assessment of biodiversity and ecosystem services should, among other things, cover the change in biodiversity and nature's contributions to people from the pre-industrial era up to 2100 as far as possible, and integrate work on the economics of biodiversity throughout the assessment, building on the IPBES *Methodological Assessment Report on the Diverse Values and Valuation of Nature* (2022) (the "Values Assessment") (United Kingdom of Great Britain and Northern Ireland);

16. Other related requests, inputs and suggestions that could be addressed by the second global assessment of biodiversity and ecosystem services included the following:

(a) A request from the Conference of the Parties to the Convention on Biological Diversity, set out in the annex to its decision 15/19, and a request submitted by the Plurinational State of Bolivia for an assessment of living well in balance and harmony with nature and living in harmony with Mother Earth, which should assess cosmocentric worldviews and knowledge systems, as well as the ways and

³ CBD/COP/DEC/15/19.

means to implement harmonic relationships between peoples, Mother Earth and nature based on diverse knowledge systems and the findings of the IPBES Values Assessment, and should contribute to implementing the Kunming-Montreal Global Biodiversity Framework and attaining the 2050 Vision for Biodiversity, of living in harmony with nature;

(b) Several requests, inputs and suggestions concerning the assessment of marine biodiversity and its contributions to people, which, according to these submissions, lags behind terrestrial ecosystems when it comes to policy-relevant information, including:

- (i) Identifying the most effective means of reinforcing marine ecosystems by conservation and restoration measures under a changing climate and assessing the role of marine ecosystems in carbon sequestration (Denmark, Finland, Iceland, Norway, Sweden);
- (ii) Assessing the implications of ocean data and knowledge gaps in relation to marine biodiversity and its interactions with terrestrial and other aquatic biodiversity (University of Cape Town);
- (iii) Assessing the risks to marine biodiversity associated with deep-sea exploration, including deep-sea mining (French Foundation for Research on Biodiversity);

(c) Several requests, inputs and suggestions concerning gender and biodiversity, highlighting the importance of enhancing gender perspectives for conservation actions, including:

- (i) Assessing the impact of biodiversity loss and environmental degradation on women and girls and the role that women and girls play in biodiversity conservation (United Kingdom of Great Britain and Northern Ireland);
- (ii) Examining the role of women, particularly Indigenous and local women, in biodiversity action and transformative change, and assessing the sustainable use of biodiversity with a gender-responsive approach (Women's Caucus of the Convention on Biological Diversity);
- (iii) Assessing gender-related dimensions of conservation (French Foundation for Research on Biodiversity);

(d) A suggestion to assess world views and diversity of customary laws of Indigenous Peoples and local communities, including biocultural diversity and associated Indigenous and local knowledge, institutions and governance systems and their linkages to biodiversity, ecosystem conservation and Mother Nature and Mother Earth (Indigenous Knowledge and Peoples Networks, Society for Wetland Biodiversity Conservation Nepal and Federation of Kirant Indigenous Associations);

(e) Several suggestions to assess: the linkages between biodiversity loss and taxation, including an analysis of incentives that are harmful or positive for biodiversity; the impact of expanding agriculture; ethno-socioeconomic models and tools and urban plans; and the interlinkages between biodiversity conservation and equity, with a focus on how the three objectives of the Convention on Biological Diversity are implemented, including inclusive participation of Indigenous Peoples and local communities (French Foundation for Research on Biodiversity);

(f) A suggestion to assess how nature can be considered and quantified as natural capital, including in government balance sheets, in order to help achieve the Sustainable Development Goals (Centre Scientifique de Monaco);

(g) A suggestion to analyse present paradigms of growth, power, wealth, work and freedom embedded in political, economic and educational institutions and new strategies for dealing with them, to support policymaking regarding climate change; environmental and natural resource management; science, technology and innovation; and the transition to low carbon, including the green and blue economy (University of São Paulo/International Academy of Science, Health and Ecology);

(h) A suggestion to assess links between biodiversity, ecosystem services and human rights and evaluate human rights standards, methods and tools that can support transformative change (One Ocean Hub).

B. Topic (b): assessment on monitoring biodiversity and ecosystem services, and associated work (implementing objectives 1 to 5)

17. IPBES received requests for the development of an assessment on monitoring biodiversity and ecosystem services and tracking progress towards the goals and targets of the Kunming-Montreal Global Biodiversity Framework. They included the following:

(a) A request from the Conference of the Parties to the Convention on Biological Diversity, set out in the annex to its decision 15/19, to prepare a fast-track assessment on monitoring biodiversity and ecosystem services and tracking progress towards the goals and targets of the Kunming-Montreal Global Biodiversity Framework and on baselines for assessing biodiversity loss. Additional information received on the request indicated that the assessment should increase coherence in the information available to Governments and other stakeholders, and should draw upon existing methodologies and experience in biodiversity monitoring, including processes initiated and undertaken under the Convention on Biological Diversity, and evaluate opportunities for the development of national biodiversity reporting, monitoring and assessment systems, including underlying biodiversity observation data, such as from remote sensing, community-based monitoring and citizen science;

(b) Similar requests noting that such a fast-track assessment is urgently required, as monitoring remains a critical challenge and could hinder progress in the implementation of the Kunming-Montreal Global Biodiversity Framework (the United Kingdom of Great Britain and Northern Ireland and the European Union).

18. Other related requests, inputs and suggestions that could be addressed by an assessment on monitoring biodiversity and ecosystem services include a request to assess vulnerabilities of nature's contributions to people, which would contribute to the monitoring of risks from a wide variety of threats, including climate change, and to develop a framework for quantifying vulnerabilities (United States of America).

C. Topic (c): assessment of biodiversity-inclusive spatial planning and ecological connectivity, and associated work (implementing objectives 1 to 5)

19. Requests for the development of an assessment of ecological connectivity were received in response to the first call of the IPBES work programme up to 2030, issued in July 2018. Subsequently, as is mentioned in paragraph 3 above, the Plenary, at its ninth session, requested the Multidisciplinary Expert Panel and the Bureau to prepare an initial scoping to form the basis of a fast-track assessment on ecological connectivity, with input from relevant multilateral environmental agreements and other organizations, taking into account the draft elements related to a thematic assessment of connectivity, as well as the outcomes of the resumed fifteenth meeting of the Conference of the Parties to the Convention on Biological Diversity, for consideration by the Plenary at its tenth session. In addition, the Plenary decided to consider, at its tenth session, requests, inputs and suggestions for an assessment on ecological connectivity, based on the initial scoping, as well as any requests, inputs and suggestions received in response to a second call, issued in September 2022.

20. In the light of the outcomes of the resumed fifteenth meeting of the Conference of the Parties to the Convention on Biological Diversity, as well as the additional requests received, the Multidisciplinary Expert Panel and the Bureau propose, as topic (c), an assessment on the broader theme of integrated biodiversity-inclusive spatial planning and ecological connectivity. The relevant requests received included the following:

(a) A request from the Conference of the Parties to the Convention on Biological Diversity, set out in the annex to its decision 15/19, to prepare a fast-track assessment on integrated biodiversity-inclusive spatial planning and ecological connectivity considering such elements as land- and sea-use change and restoration. Additional information received on the request indicated that the proposed assessment should address a gap in the information available to Parties and actors regarding spatial planning measures to support conservation, restoration and ecological connectivity. It should draw upon existing methodologies and experience in land- and sea-use planning and increase coherence between methodologies on those topics, building on other deliverables of the Platform, including the IPBES thematic *Assessment Report on Land Degradation and Restoration*. The assessment should enable effective action to address land- and sea-use change and support planning across biodiversity-related goals and targets, directly supporting the implementation of the Kunming-Montreal Global Biodiversity Framework. A fast-track two-year process is envisaged for the assessment to provide information in time for the implementation of, in particular, targets 1 to 3 of the Kunming-Montreal Global Biodiversity Framework;

(b) Similar requests highlighting, among other things, that ecological connectivity is a key concern for migratory species and that such an assessment would therefore be very valuable for the Convention on the Conservation of Migratory Species of Wild Animals and other policy processes, including the United Nations Decade on Ecosystem Restoration and the Bonn Challenge. Those requests also highlighted the importance of assessing spatial planning and connectivity to policy processes under the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, and the Convention for the Protection of the World Cultural and Natural Heritage (Spain, the United Kingdom of Great Britain and Northern Ireland and the European Union);

(c) A request to assess corridor connectivity, landscape mosaics and spatial patterns and planning, in order to contribute to effectively conserving biodiversity and nature's contributions to people across spatial and temporal scales by assessing the state of corridor connectivity and the risks and opportunities for enhancing corridor connectivity for terrestrial, freshwater and marine ecosystems. The request highlights the critical nature of improving landscape connectivity and spatial planning across already fragmented and degraded habitats (United States of America).

21. Other related requests, inputs and suggestions that could be addressed by an assessment on spatial planning and ecological connectivity include the following:

(a) A request to assess restoration and nature-based solutions highlighting the fact that ambitious goals for conserving biodiversity and ecosystem services will not be accomplished without restoring degraded areas. The request specifies that in that context, nature-based solutions based on restoration approaches are a fundamental pillar for addressing the biodiversity crisis, and that practitioners should be provided with the best scientific information on actionable restoration practices that leverage nature-based solutions for conserving functional ecosystems. It notes that identifying potential nature-based solutions that conserve biodiversity, maintain social benefits of nature's contribution to people and provide the foundations for climate adaptation would aid conservation efforts (United States of America);

(b) A request to assess knowledge gaps for planning and investing in climate-ready marine fisheries and marine protected areas, in order to inform planning and prioritization for effective management and conservation actions focused on marine environments: The request recommends assessing best adaptive management practices for biodiversity conservation, including the establishment of no-take marine protected areas, and assessing the negative impact of future climate conditions. It notes the need to identify knowledge gaps preventing effective management of marine biodiversity and barriers to implementing climate-ready fisheries and marine protected areas, with a specific eye on planning and investment. The elements of the request related to spatial planning for expanding marine protected areas and enhancing ecological connectivity could be addressed under this topic (United States of America);

(c) A suggestion to assess biodiversity conservation with a focus on how conservation is implemented, by whom and with what outcomes. The suggestion notes the tendency to focus on the spatial element of area-based conservation, neglecting other elements related to effectiveness, governance and rights (French Foundation for Research on Biodiversity).

D. Topic (d): assessment of biodiversity and climate change, and associated work (implementing objectives 1 to 5)

22. IPBES received a request from France for a thematic assessment of nature-based solutions and ecosystem services in the light of a changing climate. The request highlights the fact that while nature-based solutions can help to restore degraded ecosystems, promote biodiversity conservation and contribute to climate change adaptation and mitigation, there is a need to assess their efficacy and efficiency relative to other methodologies and to clarify their potential to respond to the biodiversity and climate crisis synergistically. The assessment would contribute to improving global understanding of the deployment strategies and safeguards needed for nature-based solutions, and how their impact is likely to evolve in the light of the evolution of climate-related initiatives. IPBES received another request from France to assess the multiple values and ecosystem services of forests in the context of climate change and biodiversity loss, which could also be at least partially considered under this topic. The submission suggested that such an assessment would contribute to improving global knowledge of the multiple values of forest ecosystems, in particular for biodiversity conservation and climate change mitigation, and meeting commitments adopted by the Conference of the Parties to the United Nations Framework Convention on Climate Change at its twenty-seventh session, the New York Declaration on Forests and the European Union forest strategy for 2030.

23. IPBES also received a request from the United States of America that could be partially addressed under this topic, for a methodological assessment on vulnerability assessments for nature's contributions to people, which would review the scientific literature and develop a transferable framework for assessing the vulnerability to climate change of nature's contributions to people.

24. In relation with this topic, the Multidisciplinary Expert Panel and the Bureau also recalled that in a separate process, the Plenary, at its ninth session, had taken note of the compilation of suggestions for thematic or methodological issues related to biodiversity and climate change that would benefit from collaboration between the Intergovernmental Panel on Climate Change (IPCC) and IPBES, received in response to a first call (IPBES/9/INF/26), and given the limited number of submissions received had requested the Executive Secretary to issue a new call in that regard. The Plenary, at its tenth session, will therefore be invited to consider a second set of suggestions (IPBES/10/INF/20), received in response to the second call.

E. Topic (e): assessment of biodiversity and pollution, and associated work (implementing objectives 1 to 5)

25. IPBES received several requests for the development of an assessment on the impacts of pollution on biodiversity and approaches to avoid, reduce and mitigate such impacts. They included the following:

(a) A request from the Conference of the Parties to the Convention on Biological Diversity, set out in the annex to its decision 15/19, to prepare a fast-track assessment on the impacts of pollution on biodiversity and approaches to avoid, reduce and mitigate such impacts. Additional information received concerning the request indicated that the proposed assessment should be undertaken in a manner to complement any work pursued under the proposed science-policy panel on chemicals, waste and pollution prevention, and should cover approaches for the identification of the main sources of pollution that affect biodiversity and ecosystem services and focus on the sources of pollution that have the greatest effect on biodiversity, including their cumulative and synergistic effect, and are not being addressed through other processes;

(b) Similar requests, which noted that such an assessment would inform the work of the Basel, Rotterdam and Stockholm conventions, including the monitoring of chemicals that are hazardous for biodiversity, such as persistent organic pollutants, as well as informing the implementation of the United Nations Environment Assembly resolution to end plastic pollution and supporting the negotiations of the subsequent target on pollution in the Kunming-Montreal Global Biodiversity Framework (United Kingdom of Great Britain and Northern Ireland, European Union);

(c) A suggestion for a thematic assessment of pollution, to be conducted in collaboration with the science-policy panel to contribute further to the sound management of chemicals and waste and to prevent pollution, which is currently under negotiation (French Foundation for Research on Biodiversity).

F. Additional considerations

26. Finally, in addition to the above submissions, which focused on specific topics for assessments and associated work to implement objectives 1 to 5 of the work programme up to 2030, IPBES also received requests, inputs and suggestions of a more general nature and comments on specific aspects of the work programme, which included the following:

(a) In relation to the four functions of IPBES, it was pointed out that all functions of IPBES should be adequately considered in the rolling work programme up to 2030, in particular those regarding supporting policy and strengthening knowledge foundations, which are indispensable to assessing knowledge and building capacity. The concrete nature of the work under the supporting policy and assessing knowledge functions would need to be defined in conjunction with the work on knowledge generation, to support the ability of science and research funding organizations to generate knowledge and of policy bodies to take up the relevant knowledge contained in the products and processes generated by IPBES (European Union).

(b) Regarding objective 5 on communicating and engaging, it was suggested that IPBES communications focus more on freshwater and inland waters as a distinct realm and support raising awareness and action, thus contributing to the Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Alliance for Freshwater Life). It was also suggested that IPBES develop material such as leaflets for new applicants on how to become an IPBES expert, in an effort to improve the geographical balance in the nominations received (French Foundation for Research on Biodiversity). Finally, it was suggested that IPBES strengthen its impact tracking database by being

more active in seeking feedback and input from Governments and others (French Foundation for Research on Biodiversity).

(c) Regarding resources, it was suggested that more resources be allocated to technical support units to allow support for more staff, especially in the context of requests for fast-track assessments (French Foundation for Research on Biodiversity). It was also suggested that more resources be allocated to the engagement of young people (Somali Youth Development Foundation).

(d) Regarding objective 3 (a) on advancing work on knowledge and data, it was suggested that IPBES support the development of synthesis research by promoting the coordination between synthesis centres and the researchers working in the field (French Foundation for Research on Biodiversity).

(e) It was suggested that IPBES convene a workshop on incentives harmful to biodiversity, including subsidies, jointly with the Organisation for Economic Co-operation and Development (France).

IV. Prioritization of requests, inputs and suggestions

A. Prioritization of topics and activities

27. The Multidisciplinary Expert Panel and the Bureau propose to prioritize four of the five topics identified in section III above, namely topics (a), (b), (c) and (d), all four of which fulfil all the criteria cited in section II.

28. Topics (a), (b) and (c) would each be addressed through a dedicated assessment under objective 1 of the work programme, and through related work corresponding to objectives 2 to 5 of the work programme. The three assessments would consist of a second global assessment of biodiversity and ecosystem services conducted over four years for topic (a) and two fast-track assessment conducted over two years for topics (b) and (c). For topic (d), it is proposed that the last slot available in the work programme up to 2030 be tentatively reserved for a fast-track assessment of biodiversity and climate change, with the exact topic of the assessment and related activities to be determined at a future session of the Plenary, in order to allow time for potential consultations with IPCC on the topic and the exploration of options for future collaboration.

29. The proposed prioritization is based on the following considerations:

(a) **Priority 1: second global assessment of biodiversity and ecosystem services.** The proposed assessment directly addresses issues of primary interest to IPBES and is highly policy relevant. It is seen by the Multidisciplinary Expert Panel and the Bureau as addressing an urgent priority, namely, to support the implementation of the Kunming-Montreal Global Biodiversity Framework by Governments and all stakeholders, the review of the implementation of the framework and the 2030 Agenda for Sustainable Development; and the development of a potential follow-up to the framework after 2030. The topic would allow policymakers to better understand the past, present and future trends of biodiversity and nature's contribution to people and would thus inform the consideration of biodiversity across multiple sectors and relevant policy processes.

(b) **Priority 2: monitoring biodiversity and ecosystem services.** The Panel and the Bureau consider that a methodological assessment focused on this topic would contribute to operationalizing the headline indicators of the Kunming-Montreal Global Biodiversity Framework and identifying opportunities for the development of national biodiversity reporting, monitoring and assessment capacities, including the means to collect the underlying biodiversity observation data and other data needed to monitor the framework, such as remote sensing, community-based monitoring and citizen science. Such a methodological assessment would directly support national and global efforts to monitor biodiversity and nature's contribution to people, help to build capacity in that respect in all countries, with a particular focus on the needs of developing countries, especially the least developed countries and small island developing States, and help to create a functional and effective global biodiversity observing system. The Panel and the Bureau also noted that a fast-track approach is needed to quickly provide parties and other actors with the information they need to monitor their implementation of the Kunming-Montreal Global Biodiversity Framework as part of the national report requirements set out in decision 15/6 of the Conference of the Parties to the Convention on Biological Diversity.

(c) **Priority 3: spatial planning and ecological connectivity.** The Panel and the Bureau noted that a methodological assessment focused on this theme would be directly relevant to targets 1, 2 and 3 of the Kunming-Montreal Global Biodiversity Framework and would help to inform actions to address land- and sea-use change, one of the main direct drivers of biodiversity loss. The assessment would also contribute to identifying and increasing coherence among methodologies for integrating biodiversity

considerations into spatial planning across sectors and scales, including through approaches aimed at avoiding or minimizing biodiversity loss and promoting ecosystem connectivity, such as territorial planning and zoning and ecosystem restoration. By assessing the needs and developing focused objectives for new research on key connectivity issues (including climate change, which affects the conservation status of each of the major taxonomic groups of migratory wild animals), the assessment would also contribute to implementation of and review of progress on the Strategic Plan for Migratory Species 2015–2023, adopted by the Conference of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals. The Panel and the Bureau also noted that a fast-track approach is needed to maximize the benefits of the assessment for Governments and other actors in support of the Kunming-Montreal Global Biodiversity Framework.

(d) **Priority 4: biodiversity and climate change.** The proposal to reserve one slot in the work programme for the period 2026–2029, between the thirteenth and sixteenth session of the Plenary, for a future fast-track thematic assessment on biodiversity and climate change, with the exact topic of the assessment to be determined at a future session of the Plenary, takes into consideration both the urgency of addressing the link between biodiversity and climate change and the ongoing process of engagement with IPCC.⁴

30. Finally, regarding topic (e) on biodiversity and pollution, the Panel and the Bureau noted that the United Nations Environmental Assembly, in its resolution 5/8, decided that a science-policy panel should be established to contribute further to the sound management of chemicals and waste and to prevent pollution, and that an ad hoc open-ended working group would be convened to prepare proposals for the science-policy panel to consider, including on the processes for determining its work programme. The Panel and the Bureau therefore suggest considering topic (e) once the processes for determining the new panel's work programme have been decided. The Multidisciplinary Expert Panel also noted, however, that there were no remaining slots for assessments to be completed by 2030.

B. New deliverables for the work programme up to 2030 and proposed timeline

31. In line with the prioritization of topics set out above, the Multidisciplinary Expert Panel and the Bureau decided to propose three new deliverables for the work programme up to 2030 under objective 1 on assessing knowledge:

(a) **Deliverable 1 (e):** a second global assessment of biodiversity and ecosystem services as a four-year process, initiated following approval of a scoping report: An initial scoping report is set out in annex II to the present note. It is proposed that scoping be conducted between the tenth and eleventh sessions of the Plenary, and that the assessment be presented to the Plenary for its consideration at the fifteenth session of the Plenary, in 2028.

(b) **Deliverable 1 (f):** a two-year fast-track assessment of monitoring biodiversity and ecosystem services: An initial scoping report is set out in annex III. It is proposed that the period between the tenth and eleventh sessions of the Plenary be dedicated to preparation, and the assessment be conducted between the eleventh and thirteenth sessions.

(c) **Deliverable 1 (g):** a two-year fast-track assessment of integrated biodiversity-inclusive spatial planning and ecological connectivity. An initial scoping report is set out in annex IV. It is proposed that the majority of the time between the eleventh and twelfth sessions be dedicated to preparation and the assessment be conducted between the twelfth and fourteenth sessions.

32. The structure of the rolling work programme up to 2030, set out in the table on page 11, has been updated from figure A.1 in annex I to decision IPBES-7/1. It includes the deliverables currently implemented in the IPBES work programme up to 2030, together with those proposed for consideration by the Plenary at its tenth session. Topics 1 to 3 are those adopted by the Plenary at its seventh session as part of the rolling work programme up to 2030. In the table, the four prioritized topics (a) to (d) are referred to as topics 4 to 7. The table shows that all objectives would be implemented for each topic.

33. The indicative timeline up to 2030 for ongoing and future assessments set out in annex I allows for:

(a) Delivery of an assessment on monitoring biodiversity and ecosystem services at the thirteenth session of the Plenary, in 2026, to provide information as soon as possible to help parties to the Convention on Biological Diversity and other actors to monitor their implementation of the Kunming-Montreal Global Biodiversity Framework;

⁴ See document IPBES/10/7.

(b) Delivery of an assessment on spatial planning and connectivity at the fourteenth session of the Plenary, in 2027, to inform the actions of parties to the Convention on Biological Diversity and other actors to integrate biodiversity into spatial planning across sectors and scales;

(c) Delivery of a second global assessment on biodiversity and ecosystem services at the fifteenth session of the Plenary, in 2028, to allow timely assessment of progress in the achievement of the 2030 targets of the Kunming-Montreal Global Biodiversity Framework and the Sustainable Development Goals.

V. Considerations regarding future calls

34. The Panel and the Bureau suggest that a further call for requests, input and suggestions be launched following the twelfth session of the Plenary, at the midpoint of the work programme, for the Plenary's consideration and the potential addition of work programme deliverables to be initiated towards the end of the work programme up to 2030 and finalized after 2030.

Structure of the rolling work programme up to 2030 (updated from figure A.1 in annex I to decision IPBES-7/1)

Overall objective of IPBES									
To strengthen the science-policy interface for biodiversity and ecosystem services for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development									
Policy framework of the rolling work programme up to 2030									
The 2030 Agenda for Sustainable Development, including the Sustainable Development Goals, the biodiversity-related conventions and other biodiversity and ecosystem services processes									
INITIAL PRIORITY TOPICS of the work programme	TOPIC 1	TOPIC 2	TOPIC 3	TOPIC 4	TOPIC 5	TOPIC 6	TOPIC 7		
OBJECTIVES of the work programme	Understanding the importance of biodiversity in achieving the 2030 Agenda for Sustainable Development	Understanding the underlying causes of biodiversity loss and determinants of transformative change and options for achieving the 2050 Vision for Biodiversity	Measuring business impact and dependence on biodiversity and nature's contributions to people	Assessing biodiversity and ecosystem services	Monitoring biodiversity and ecosystem services	Biodiversity-inclusive spatial planning and ecological connectivity	Biodiversity and climate change	Supporting the achievement of the overall objective of IPBES	
OBJECTIVE 1 Assessing knowledge	Deliverable 1 (a): Assessing interlinkages among biodiversity, water, food and health (thematic assessment) Deliverable 1 (b): Assessing the interlinkages between biodiversity and climate change (technical paper)	Deliverable 1 (c): Assessing the underlying causes of biodiversity loss and the determinants of transformative change and options for achieving the 2050 Vision for Biodiversity (thematic assessment)	Deliverable 1 (d): Assessing the impact and dependence of business on biodiversity and nature's contributions to people (fast-track methodological assessment)	Deliverable 1 (e): Assessing biodiversity and ecosystem services (second global assessment of biodiversity and ecosystem services)	Deliverable 1 (f): Monitoring biodiversity and nature's contributions to people (fast-track methodological assessment)	Deliverable 1 (g): Assessing integrated biodiversity-inclusive spatial planning and ecological connectivity (fast-track methodological assessment)	<i>Fast-track assessment of biodiversity and climate change, with the exact topic of the assessment to be determined at a future session of the Plenary</i>		
OBJECTIVE 2 Building capacity	(a) Enhanced learning and engagement	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	(b) Facilitated access to expertise and information	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	(c) Strengthened national and regional capacities	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
OBJECTIVE 3 Strengthening the knowledge foundations	(a) Advanced work on knowledge and data	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	(b) Enhanced recognition of and work with ILK systems	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
OBJECTIVE 4 Supporting policy	(a) Advanced work on policy instruments, policy support tools and methodologies	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	(b) Advanced work on scenarios and models of biodiversity	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	(c) Advanced work on multiple values	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
OBJECTIVE 5 Communicating and engaging	(a) Strengthened communication								
	(b) Strengthened engagement of Governments								
	(c) Strengthened engagement of stakeholders								
OBJECTIVE 6 Improving the effectiveness of the Platform	(a) Periodic review of the effectiveness of IPBES								
	(b) Review of the IPBES conceptual framework								
	(c) Improving the effectiveness of the assessment process								
(*) Specific deliverables developed by task forces									

Annex I

Indicative timeline up to 2030 for ongoing and future assessments of the Platform



Sustainable use of wild species

Values

Invasive alien species

Biodiversity, water, food and health

Determinants of transformative change

Business and biodiversity

2nd Global assessment

Fast-track assessment 1 (Monitoring)

Fast-track assessment 2 (Spatial planning and connectivity)

Possible fast-track assessment 3 (Biodiversity and climate change)

Annex II

Initial scoping report for a second global assessment of biodiversity and ecosystem services

1. The following sections set out an initial scoping report for the second IPBES global assessment of biodiversity and ecosystem services (referred to hereafter as “the second global assessment”), prepared by the Multidisciplinary Expert Panel and Bureau. The Plenary, at its tenth session, will be invited to approve the initiation of full scoping on the basis of this initial scoping report.

I. Objectives

2. The second global assessment will:

(a) Support Governments and stakeholders in implementing the Convention on Biological Diversity and its protocols, the Kunming-Montreal Global Biodiversity Framework and the 2030 Agenda for Sustainable Development, with a view to achieving the 2050 Vision for Biodiversity and the Sustainable Development Goals, as well as the Paris Agreement adopted under the United Nations Framework Convention on Climate Change (for matters related to the links between biodiversity and climate change);

(b) Support the assessment of progress towards the achievement of the 2030 targets and 2050 goals of the Kunming-Montreal Global Biodiversity Framework, as well as relevant Sustainable Development Goals and targets;

(c) Provide the scientific and technical basis for the follow-up to the Kunming-Montreal Global Biodiversity Framework after 2030.

II. Methodological approach

3. **Date of delivery:** The second global assessment should be finalized for consideration by the Plenary in the fourth quarter of 2028, or in the first quarter of 2029 at the latest, in order to allow timely assessment of progress in achieving the targets and goals of the Kunming-Montreal Global Biodiversity Framework in 2030.

4. **Duration:** It is suggested that the second global assessment begin immediately after the eleventh session of the Plenary (2024), on the assumption that its scoping would be approved at that session, and that a period of four years be allowed for the preparation of the assessment,¹ which would then be considered for approval by the Plenary at its fifteenth session.

5. **Scoping workshop:** The scoping report will be prepared according to the procedures for the preparation of Platform deliverables, set out in annex I to decision IPBES-3/3. It is suggested that a full scoping be carried out, overseen by the Multidisciplinary Expert Panel and the Bureau, involving a scoping workshop with experts selected by the Panel to assist with the scoping following a call for nominations. It is anticipated that the scoping workshop would involve the participation of about 60 experts.

6. **Structure of scoping report:** The scoping report will include sections presenting the overall scope and rationale, the timeline and geographic coverage and the methodological approach, as well as a detailed chapter outline and a timeline. The scoping report should have a length of about 3,000 words and indicate the maximum length of the chapters and summary for policymakers of the completed assessment.

7. **Sources of knowledge:** The second global assessment will draw on scientific literature, Indigenous and local knowledge, and grey literature, in line with the procedures for the preparation of Platform deliverables. The assessment will focus on the new evidence that has emerged since the publication of *The Global Assessment Report on Biodiversity and Ecosystem Services*,² and will build on other completed IPBES assessment reports, in particular the nexus and the transformative change

¹ The three-year period available for the production of the report on the global assessment of biodiversity and ecosystem services was considered very tight.

² IPBES (2019): *The Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*. Brondizio, E. S., Settele, J., Díaz, S. and Ngo, H. T. (eds.). IPBES secretariat, Bonn, Germany. <https://doi.org/10.5281/zenodo.3831673>.

assessment reports, as well as the *Methodological Assessment Report on the Diverse Values and Valuation of Nature*,³ the *Thematic Assessment Report on the Sustainable Use of Wild Species*,⁴ the assessment report on invasive alien species, the methodological assessment report on business and biodiversity, and any shorter focused assessments that might be initiated at the tenth session of the Plenary. It will also draw on the most recent IPCC assessment reports.

8. **Integration of scales:** The final scoping report will detail how the second global assessment will consider global, regional, subregional and national-scale analyses, as well as ecosystem-level analysis, in a fully integrated manner, and will take into account the challenges faced by developing countries.

9. **Gaps in knowledge:** The second global assessment will consider the knowledge gaps identified in the first global assessment.

III. Overall scope

10. The second global assessment will be comprehensive and broadly similar in scope to the first global assessment while building on it to avoid repetition or unnecessary duplication, and will address all aspects of the goals, targets and other elements of the Kunming-Montreal Global Biodiversity Framework. The assessment will cover terrestrial and inland water ecosystems and place major emphasis on marine ecosystems, including the open ocean, coastal areas, tidal zones and seabed.

11. The second global assessment will address all elements of the IPBES conceptual framework and the interlinkages between them. It will incorporate diverse values and multiple worldviews, taking into account, among other things, the *Methodological Assessment Report on the Diverse Values and Valuation of Nature*. In particular, it will address the understanding of “living well in balance and harmony with Mother Earth and living in harmony with nature”. It will assess how to advance a holistic understanding of different worldviews and knowledge systems, as well as methods for achieving harmonic relationships between societies and nature.

12. The second global assessment will incorporate a gender-sensitive approach. It will assess the interlinkages between women and biodiversity, with a focus on regions and situations where women and girls are the most vulnerable as a result of biodiversity loss and degradation of ecosystems.

13. The second global assessment will analyse past, present and possible future trends in biodiversity and nature’s contributions to people and their impact on a good quality of life; values and response options regarding nature and nature’s contributions to people, as well as the direct and indirect drivers of those trends. Where possible, information on past status and trends will cover natural reference states, including pre-industrial time periods, when relevant. Future status and trends should project to 2050 and 2100, drawing from the IPBES *Methodological Assessment Report on Scenarios and Models of Biodiversity and Ecosystem Services*⁵ and the latest advances in those fields. The assessment will make use of relevant indicators, including those adopted under the Kunming-Montreal Global Biodiversity Framework and the 2030 Agenda for Sustainable Development.

14. The second global assessment will assess progress in the achievement of goals and targets for the conservation and sustainable use of nature, including those of the Kunming-Montreal Global Biodiversity Framework and the 2030 Agenda for Sustainable Development.

15. The second global assessment will present options for action by a diversity of stakeholders to progress towards achieving the goals and targets. It will also provide information that could be used to

³ IPBES (2022). *The Methodological Assessment Report on the Diverse Values and Valuation of Nature of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*. Balvanera, P., Pascual, U., Christie, M., Baptiste, B., and González-Jiménez, D. (eds.). IPBES secretariat, Bonn, Germany. <https://doi.org/10.5281/zenodo.6522522>.

⁴ IPBES (2022). *The Thematic Assessment Report on the Sustainable Use of Wild Species of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*. Fromentin, J. M., Emery, M. R., Donaldson, J., Danner, M. C., Hallosserie, A., and Kieling, D. (eds.). IPBES secretariat, Bonn, Germany. <https://doi.org/10.5281/zenodo.6448567>.

⁵ IPBES (2016). *The Methodological Assessment Report on Scenarios and Models of Biodiversity and Ecosystem Services of the Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services*. Ferrier, S., Ninan, K. N., Leadley, P., Alkemade, R., Acosta, L.A., Akçakaya, H.R., Brotons, L., Cheung, W. W. L., Christensen, V., Harhash, K.A., Kabubo-Mariara, J., Lundquist, C., Obersteiner, M., Pereira, H. M., Peterson, G., Pichs-Madruga, R., Ravindranath, N., Rondinini R., and Wintle, B. A. (eds.). IPBES secretariat, Bonn, Germany. <https://doi.org/10.5281/zenodo.3235428>.

develop updated goals and targets to support the follow-up to the Kunming-Montreal Global Biodiversity Framework after 2030.

IV. Timetable

<i>Date</i>	<i>Actions and institutional arrangements</i>
2023	
Third quarter	At its tenth session, the Plenary is invited to approve a process for the production of a scoping report for a second global assessment of biodiversity and ecosystem services, to be produced in accordance with the procedures for the preparation of Platform deliverables and based on the initial scoping report for the assessment, and to be considered by the Plenary at its eleventh session
Fourth quarter	The Multidisciplinary Expert Panel, through the secretariat, requests nominations of experts by Governments and other stakeholders, to assist with the production of the scoping report
2024	
First/second quarter	Scoping workshop with experts selected by the Panel
Fourth quarter	At its eleventh session, the Plenary is invited to approve the scoping report for a second global assessment of biodiversity and ecosystem services; approve the undertaking of the assessment; and request the secretariat to establish the institutional arrangements needed to mobilize the technical support required for the assessment
Fourth quarter	The Multidisciplinary Expert Panel, through the secretariat, requests nominations, by Governments and other stakeholders, of experts to produce the assessment
2025	
First/second 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
Fourth quarter	First author meeting with the co-chairs, coordinating lead authors, lead authors, review editors and members of the Bureau and Multidisciplinary Expert Panel that are part of the management committee for the assessment
2026	
Second quarter	First external review (six weeks) – draft chapters are made available for review by experts
Third quarter	Second author meeting with the co-chairs, coordinating lead authors, lead authors, review editors and members of the Bureau and Multidisciplinary Expert Panel that 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 Multidisciplinary Expert Panel that are part of the management committee for the assessment
Fourth quarter	Writing workshop to advance the preparation of the summary for policymakers with the co-chairs, coordinating lead authors and members of the Bureau and Multidisciplinary Expert Panel that are part of the management committee for the assessment
2027	
Second quarter	Second external review (eight weeks) – draft chapters and draft of the summary for policymakers are made available for review by Governments and experts
Third quarter	Third author meeting with the co-chairs, coordinating lead authors, lead authors, review editors and members of the Bureau and Multidisciplinary Expert Panel that are part of the management committee for the assessment Back to back with the third 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 Multidisciplinary Expert Panel that are part of the management committee for the assessment
2028	
First quarter	Additional review of the summary for policymakers by Governments (four weeks)
Second 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 Multidisciplinary Expert Panel that are part of the management committee for the assessment

<i>Date</i>	<i>Actions and institutional arrangements</i>
Third/fourth quarter	Final review (six weeks) – final draft chapters and draft of the summary for policymakers are made available for review by Governments
Fourth quarter	Consideration by the Plenary, at its fifteenth session, of the summary for policymakers for approval and of the chapters for acceptance
Fourth quarter	Communication activities in relation to the assessment

Annex III

Initial scoping report for a methodological assessment on monitoring biodiversity and nature's contributions to people

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

A. Scope and rationale

1. The objective of the methodological assessment on monitoring biodiversity and nature's contributions to people is to support national and global efforts to (a) monitor biodiversity, nature's contributions to people and the direct and underlying causes of the observed changes; and (b) specifically monitor progress towards the goals and targets of the Kunming-Montreal Global Biodiversity Framework by implementing the monitoring framework for the Kunming-Montreal Global Biodiversity Framework. The assessment will also contribute to the monitoring of the 2030 Agenda for Sustainable Development and its Sustainable Development Goals and other relevant multilateral environmental agreements, processes and efforts.
2. The report will *assess what data are currently available and needed* to calculate the indicators of the monitoring framework for the Kunming-Montreal Global Biodiversity Framework related to biodiversity, nature's contributions to people and the direct and underlying causes of the observed changes. It will prioritize the headline indicators but also assess data availability for the complementary and component indicators of the monitoring framework.
3. The report will *assess the current capacity to collect and analyse data* at national and global scales, as will be required to implement the monitoring framework for the Kunming-Montreal Global Biodiversity Framework. The report will assess gaps in data availability and access and existing biases in taxonomic, geographic and temporal coverage of data for marine, inland water and terrestrial environments. It will assess disparities in the capacity of countries to generate, access and share data; employ robust statistical methods for trend detection and attribution; and support systematic biodiversity monitoring.
4. The assessment will identify opportunities to further develop *national biodiversity monitoring capacities* (with particular focus on the needs of developing countries, especially least developed countries and small island developing States) and community, Indigenous and citizen-science biodiversity monitoring.
5. The assessment will look at options for bringing together national monitoring systems and other efforts into an effective *global biodiversity observing system*, to promote resource-sharing, allow data from many sources to be combined and improve understanding of biodiversity change in underrepresented regions of the world. It will detail the main components of a global biodiversity observing system and analyse the steps needed for its operationalization.

B. Timeline and baseline

6. In line with the monitoring framework for the Kunming-Montreal Global Biodiversity Framework, the assessment will prioritize the period 2011–2020 as the reference period for reporting and monitoring progress in the implementation of the framework. It will go as far back as 50 years, in line with the approach followed for *The Global Assessment Report on Biodiversity and Ecosystem Services*. Longer-term records, including palaeoecological records, will also be assessed in cases where indicators require them (e.g., species extinction rates).
7. Long-term historical data will also be used as an information source for possible baselines and contemporary reference states that could be considered for various national, regional or global indicator comparisons.
8. The assessment will be carried out over a two-year period using the fast-track approach for thematic and methodological assessments.

C. Geographical coverage

9. This is a global-level assessment, which will provide information relevant to all biogeographic and oceanographic zones at all scales, from subnational to global.

D. Methodological approach

10. The assessment will consist of a summary for policymakers and four chapters, each with an executive summary of the key findings.
11. The assessment will draw on scientific literature, Indigenous and local knowledge and grey literature, in line with the procedures for the preparation of Platform deliverables.¹
12. The assessment will review existing methodologies and experience in biodiversity monitoring, including *in-situ* and remote sensing measurements, community-based monitoring and citizen science. It will assess processes initiated and undertaken under the Convention on Biological Diversity, as well as the work of the Biodiversity Indicators Partnership, the Biodiversity Observation Network (GEO-BON) and the Statistics Division. It will also cover new technologies for estimating biodiversity, such as environmental DNA, ecological acoustics, camera-traps, hyperspectral imagery and artificial intelligence, that can be mobilized locally to produce rapid assessments and surveys over large areas, including through collaboration with Indigenous Peoples and local communities on the ground.
13. The assessment will present relevant case studies at various scales, as appropriate.
14. The assessment will be consistent with the IPBES conceptual framework.²
15. The assessment will be conducted by a balanced, interdisciplinary team of experts with expertise in monitoring biodiversity and nature's contributions to people in terrestrial, freshwater and marine systems. The expert team will encompass a diverse range of backgrounds (e.g., academia, government and civil society) and disciplines (e.g., ecology, evolution, social sciences, economics, statistics and biodiversity modelling). The interdisciplinary expert team will draw on knowledge from a diverse range of sources (e.g., knowledge and expertise in natural and social science, knowledge of relevant national and international monitoring institutions, Indigenous monitoring programs, citizen science initiatives and global observing systems).

II. Chapter outline

16. **Chapter 1. Setting the scene** (*indicative length: 10,000 words*). Chapter 1 will describe the purpose of the assessment and the intended audiences. It will outline which and whose needs the assessment is intended to fulfil and the plan for ensuring that it does so. It will introduce the issues to be assessed in the subsequent chapters.
17. Chapter 1 will introduce how the assessment links to the IPBES conceptual framework and, in particular, how the report will address monitoring requirements regarding nature, its contributions to people and the direct and underlying causes of observed changes. It will explain how the assessment will support the implementation of the monitoring framework for the Kunming-Montreal Global Biodiversity Framework in order to support the achievement of the framework's goals and targets and the 2030 Agenda for Sustainable Development and its Sustainable Development Goals.
18. **Chapter 2. Assessing the data needs** (*indicative length: 15,000 words*). Chapter 2 will assess what is needed in terms of data, indicators and models to inform the implementation of the actions required by the goals and targets of the Kunming-Montreal Global Biodiversity Framework. Priority will be given to assessing the data needs for the headline indicators and, where possible, the component and other indicators of the monitoring framework.
19. Chapter 2 will also consider other possible biodiversity monitoring science needs to support the application of the indicators used to guide local to national conservation policy and planning.
20. **Chapter 3. Assessing the challenges in biodiversity monitoring to meet needs** (*indicative length: 15,000 words*). Chapter 3 will assess the data currently being generated and the systems that collect and mobilize those data. It will explore the availability and accessibility of the existing data and assess their geographic and taxonomic coverage, as well as their gaps and biases. Chapter 3 will also assess the infrastructure available to monitor biodiversity, including available *in situ* and remote sensing capacity, institutional support and funding sources.
21. Chapter 3 will highlight key challenges in terms of coherence among existing systems, such as incompatibilities in data structure, that prevent the aggregation of local and national indicators into global indicators. It will also examine gaps in taxonomy and in geographic and temporal coverage.

¹ See annex I to decision IPBES-3/3.

² See annex to decision IPBES-2/4, and decision IPBES-5/1, section III, paras. 8 and 9.

22. **Chapter 4. Providing options for strengthening the capacity to monitor biodiversity worldwide** (*indicative length: 20,000 words*). Chapter 4 will assess the options for action to enable and develop long-term monitoring capacity.
23. Chapter 4 will assess the types of investments that are needed to establish or reinforce sustained, long-term national and subnational monitoring programmes, including those led by Indigenous Peoples and local communities.
24. Chapter 4 will also assess options for bringing existing national monitoring initiatives together into a scientifically robust global network of observation sites and station (i.e. a global biodiversity observing system) to help collect, manage, analyse and report data and trends on biodiversity.
25. Chapter 4 will assess the benefits of building such a system, which includes the provision of an enabling environment to share and standardize methods, capacity and data capture, and also the capacity to rapidly update analyses of global and national trends, predictive modelling and tailored information products.
26. Chapter 4 will also assess the institutional and financial requirements of such a system. This will include: (a) the technologies, data infrastructure, governance and partnerships; (b) mechanisms for financing; and (c) the existing components that can be integrated to form the first phase of the implementation of the global system. Chapter 4 will assess the economic costs and benefits arising from an initial investment in a global biodiversity observing system, followed by alternative pathways for the progressive development of the system and its capacity by 2030 and beyond.

III. Timetable

<i>Date</i>	<i>Actions and institutional arrangements</i>
2023	
Third quarter	At its tenth session, the Plenary is invited to approve the undertaking of the methodological assessment on monitoring biodiversity and nature's contributions to people based on the initial scoping report, and to request the secretariat to establish the institutional arrangements necessary to operationalize the technical support required for the assessment
Fourth quarter	The Multidisciplinary Expert Panel, through the secretariat, requests nominations of experts by Governments and other stakeholders
2024	
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
Second quarter	First author meeting with the co-chairs, coordinating lead authors, lead authors, review editors and members of the Bureau and Multidisciplinary Expert Panel that are part of the management committee for the assessment
2025	
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 Multidisciplinary Expert Panel that 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 Multidisciplinary Expert Panel that 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 Multidisciplinary Expert Panel that are part of the management committee for the assessment
Fourth quarter	Additional external review of the summary for policymakers (six weeks) – draft of the summary for policymakers is made available for review by Governments and experts
2026	
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

<i>Date</i>	<i>Actions and institutional arrangements</i>
Third quarter	Final review (six weeks) – final draft of the chapters and summary for policymakers is made available for review by Governments
Fourth quarter	Consideration by the Plenary, at its thirteenth session, of the summary for policymakers for approval and of the chapters for acceptance Communication activities in relation to the assessment

Annex IV

Initial 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. The 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 to improve planning for effective conservation, restoration and sustainable use of nature and its contributions to people across spatial and temporal scales.

2. The assessment will be directly relevant to target 1 of the Kunming-Montreal Global Biodiversity Framework, on biodiversity inclusive spatial planning, target 2, on restoration, and target 3, on protected areas and other area-based conservation measures, and will inform the implementation of other area-based targets for 2030, including target 10, on areas under agriculture, aquaculture, fisheries and forestry, and target 12, on the area, quality and connectivity of green and blue spaces in urban areas. The assessment 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 in restoring and enhancing ecological connectivity, focusing on how ecological connectivity contributes to biodiversity conservation, such as in the case of migratory species.

4. The assessment will look at participatory approaches for 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 land, inland waters and sea use to simultaneously achieve 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 this 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

¹ See annex I to decision IPBES-3/3.

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. It will identify key gaps in relevant knowledge and data.
10. The assessment will draw on scientific literature, Indigenous and local knowledge and grey literature, in line with the procedures for the preparation of Platform deliverables.³ It will build on and complement previous and ongoing work of IPBES, including completed IPBES 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.⁴
13. The assessment will be conducted by a balanced, interdisciplinary team of experts with expertise in spatial planning and 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-sector and civil society) and disciplines (e.g., ecology, conservation science including restoration and protected areas, land systems science, spatial planning, political sciences and economics).

II. Chapter outline

14. **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 outline which and whose needs the assessment is intended to fulfil and the plan for ensuring that it does so. It will introduce how the assessment links to the IPBES conceptual framework and which issues are assessed in the subsequent chapters. 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. Chapter 1 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 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. 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, and target 3, on protected areas and other area-based conservation measures. It will also introduce the other targets of the Kunming-Montreal Global Biodiversity Framework that are concerned with spatial planning and connectivity.

15. **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 for conserving nature and its contributions, 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. It will further outline the need to meet target 1 in order to meet other targets of the framework, including targets 2, 3, 10 and 12, and will explain the interlinkages. The chapter will show how target 1 provides a spatial context for those other targets, and 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. Regarding the use of land, the chapter will explore the interactions between agricultural production

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

³ See annex I to decision IPBES-3/3.

⁴ See annex to decision IPBES-2/4, and decision IPBES-5/1, section III, para. 9.

(including crops and grazing lands), water use, forestry, biodiversity conservation and restoration, energy production, mining and infrastructure development. Regarding inland water use, the chapter will explore the interactions between land use in catchment and riparian areas, water abstraction, hydropower development, peatland mining and biodiversity conservation and restoration. Regarding sea use, the chapter will explore the interactions between fishing, navigation, offshore energy development and other drivers impacting biodiversity in marine systems. The chapter will assess how biodiversity-inclusive spatial planning has been implemented and where and how it has been successful in reducing biodiversity loss and conserving 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 on biodiversity-inclusive spatial planning and, as necessary, provide options for other indicators to complement those of the monitoring framework for the Kunming-Montreal Global Biodiversity Framework.

16. **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. It will define what restoration means in a changing world and examine how to identify the most important areas, corridors between areas and other connectivity factors to restore on land, in inland waters and at sea. Chapter 3 will identify the types of restoration that are effective in recovering and enhancing biodiversity and ecological connectivity while not affecting sustainable uses. The chapter 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. As habitat restoration will often occur inside protected areas, this chapter will assess knowledge regarding spatial locations and types of interventions of relevance to protected areas' designations and management (supporting target 3) and to restoration actions (supporting target 2). Chapter 3 will identify the types of protection and area-based conservation measures that are effective in reducing biodiversity loss. It will assess methods and indicators for measuring progress in areas under restoration and conservation and, as necessary, provide options for other indicators to complement those of the monitoring framework for the Kunming-Montreal Global Biodiversity Framework.

17. **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 key component of spatial planning for the survival of wild animals and plant species and the enhancement of nature's contributions to people. It will cover both structural and functional components of connectivity and its role in the context of a changing climate. This chapter will address elements of Goal A of the Kunming-Montreal Global Biodiversity Framework.⁵ It will also address aspects of targets 2,⁶ 3⁶ and 12⁷ of the framework. The chapter will review the multiple definitions of connectivity in research and implementation of spatial planning. 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 also 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.

18. **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

⁵ "The integrity, connectivity and resilience of all ecosystems are maintained, enhanced, or restored".

⁶ "effectively conserved and managed through ecologically representative, well-connected [...] systems of protected areas and other effective area-based conservation measures".

⁷ "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".

IPBES *Methodological Assessment Report on Scenarios and Models of Biodiversity and Ecosystem Services*, that represent plausible futures for spatial planning in terrestrial, inland waters and marine environments at all scales relevant to the implementation of the Kunming-Montreal Global Biodiversity Framework. 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, ecological corridors, protected area networks 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 within 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.

19. Chapter 6: Creating an enabling environment for 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 include a focus on the need for well-conceived policies, good governance and community buy-in and involvement, including the role of Indigenous Peoples and local communities, long-term commitment to meeting goals and capacity-building. This chapter will also explore the role of adaptive management in managing biodiversity over time. Analyses will focus on conservation and resource management planning and decisions that incorporate risk management, appropriate methods and tools for considering potential future climate conditions and adaptation costs, and that prioritize options to reduce vulnerability to environmental, social and economic impacts of various drivers of 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.

III. Timetable

<i>Date</i>	<i>Actions and institutional arrangements</i>
2023	
Third quarter	At its tenth session, the Plenary is invited to approve, on the basis of the initial scoping report, the undertaking of the methodological assessment of integrated biodiversity-inclusive spatial planning and ecological connectivity, which would start following the twelfth session of the Plenary, and to request the secretariat to establish the institutional arrangements necessary to operationalize the technical support required for the assessment
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 Multidisciplinary Expert Panel that 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 Multidisciplinary Expert Panel that 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 Multidisciplinary Expert Panel that 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 Multidisciplinary Expert Panel that are part of the management committee for the assessment

<i>Date</i>	<i>Actions and institutional arrangements</i>
Fourth quarter	Additional external review of summary for policymakers (six 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 (six weeks) – final draft of the chapters and 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