Decision IPBES-9/1: Implementation of the rolling work programme of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services up to 2030

The Plenary,

Welcoming the report of the Executive Secretary on progress in the implementation of the rolling work programme up to 2030,[1]

Acknowledging with appreciation the outstanding contribution made by all the experts involved to date in the implementation of the work programme and thanking them for their unwavering commitment thereto,

Encouraging Governments and organizations to participate actively in the implementation of the work programme,

I

Implementation of the work programme of the Platform up to 2030

1. *Decides* to proceed with the implementation of the work programme in accordance with the decisions adopted at its previous sessions, the present decision and the approved budget, as set out in decision IPBES-9/3;

2. *Requests* the Executive Secretary to provide a report on progress in the implementation of the work programme to the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services at its tenth session;

II

Assessing knowledge

3. *Approves* the summary for policymakers of the thematic assessment of the sustainable use of wild species,[2] and accepts the chapters of the assessment, including their executive summaries;[3]

4. *Also approves* the summary for policymakers of the methodological assessment of the diverse values and valuation of nature,[4] and accepts the chapters of the assessment, including their executive summaries;[5]

5. *Further approves* the undertaking of a methodological assessment of the impact and dependence of business on biodiversity and nature's contributions to people in accordance with the procedures for the preparation of Platform deliverables[6] and as outlined in the scoping report for the assessment set out in annex I to the present decision;

6. *Welcomes* the report on progress set out in the note by the secretariat on engagement with the Intergovernmental Panel on Climate Change[7] and takes 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 and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services;[8]

7. *Invites* the national focal points of the Platform to engage with their Intergovernmental Panel on Climate Change counterparts to jointly consider potential means of increasing scientific cooperation and information sharing and improving understanding of relevant processes, procedures and workplans;

[1] IPBES/9/4.

[2] IPBES/9/14/Add.1.

[3] IPBES/9/INF/1/Rev.1.

[4] IPBES/9/14/Add.2.

[5] IPBES/9/INF/2/Rev.1.

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

[7] IPBES/9/9.

[8] IPBES/9/INF/26.

8. *Recognizes* the limited number of submissions received and contained in the compilation of suggestions referred to in paragraph 4 above and requests the Executive Secretary to issue a new call for contributions, compile them and present them for consideration by the Plenary at its tenth session;

9. *Invites* the Bureau of the Platform and its Executive Secretary to continue to explore with the Intergovernmental Panel on Climate Change approaches for cooperation and potential joint activities between the Panel and the Platform, including as part of the seventh assessment cycle of the Panel, taking into account the options outlined in section II of the note by the secretariat on the work on biodiversity and climate change and collaboration with the Intergovernmental Panel on Climate Change[9] and the need for transparency of any activity, in conformity with the decisions of the Panel and of the Platform and their respective policies and procedures, and requests the Executive Secretary to report to the Plenary at its tenth session on progress in that regard;

10. *Encourages* the members of the Platform, relevant stakeholders, scientific bodies and research organizations to undertake knowledge development and research regarding the interlinkages between biodiversity and climate change, including the impacts of climate change;

11. *Requests* 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,[10] 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;

12. *Decides* 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 referred to in paragraph 11 of the present decision, as well as any requests, inputs and suggestions received in response to the call that will be issued in accordance with paragraph 2 of decision IPBES-7/1;

13. *Invites* the scientific community and other relevant actors to accelerate the building of knowledge for a second global assessment, including work on filling the gaps identified in the first *Global Assessment Report on Biodiversity and Ecosystem Services*[11] and other completed assessments of the Platform, and invites those in a position to do so to support those efforts;

14. *Decides*, notwithstanding section 3.1 and related provisions of the procedures for the preparation of Platform deliverables,[12] to enable Governments to undertake an additional review of the summary for policymakers of the assessment of invasive alien species in August 2022;

III

Building capacity

15. *Welcomes* the progress made by the task force on capacity-building in the implementation of objectives 2 (a), 2 (b) and 2 (c) of the work programme of the Platform up to 2030;

16. *Also welcomes* the deliverables supporting objectives 2 (a), 2 (b) and 2 (c) and the three initial priority topics of the work programme of the Platform up to 2030, as set out in annex II to the present decision;

17. *Approves* the workplan of the task force on capacity-building for the intersessional period 2022–2023, as set out in annex II to the present decision;

IV

Strengthening the knowledge foundations

18. *Welcomes* the progress made by the task force on knowledge and data in the implementation of objective 3 (a) of the work programme of the Platform up to 2030;

[9] IPBES/8/6.

[10] IPBES/9/12, annex III.

[11] IPBES (2019): Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. E. S. Brondizio, J. Settele, S. Díaz, and H. T. Ngo (eds.). IPBES secretariat, Bonn, Germany. 1148 pages. https://doi.org/10.5281/zenodo.3831673.

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

19. *Welcomes* the data and knowledge management policy of the Platform;[13]

20. *Welcomes* the deliverables supporting objective 3 (a) and the three initial priority topics of the work programme of the Platform up to 2030, as set out in annex III to the present decision;

21. *Approves* the workplan of the task force on knowledge and data for the intersessional period 2022–2023, as set out in annex III to the present decision;

22. *Welcomes* the progress made by the task force on indigenous and local knowledge in the implementation of objective 3 (b) of the work programme of the Platform up to 2030;

23. *Also welcomes* the deliverables supporting objective 3 (b) and the three initial priority topics of the work programme of the Platform up to 2030, as set out in annex IV to the present decision;

24. *Approves* the workplan of the task force on indigenous and local knowledge for the intersessional period 2022–2023, as set out in annex IV to the present decision;

V

Supporting policy

25. *Welcomes* the progress made by the task force on policy tools and methodologies in the implementation of objective 4 (a) of the work programme of the Platform up to 2030;

26. *Also welcomes* the deliverables supporting objective 4 (a) and the three initial priority topics of the work programme of the Platform up to 2030, as set out in annex V to the present decision;

27. *Approves* the workplan of the task force on policy tools and methodologies for the intersessional period 2022–2023, as set out in annex V to the present decision;

28. *Welcomes* the progress made by the task force on scenarios and models of biodiversity and ecosystem services in the implementation of objective 4 (b) of the work programme of the Platform up to 2030, including the foundations of the nature futures framework, a flexible tool to support the development of scenarios and models of desirable futures for people, nature and Mother Earth, as set out in annex VI to the present decision;

29. *Also welcomes* the deliverables supporting objective 4 (b) and the three initial priority topics of the work programme of the Platform up to 2030, as set out in annex VII to the present decision;

30. *Approves* the workplan of the task force on scenarios and models of biodiversity and ecosystem services for the intersessional period 2022–2023, as set out in annex VII to the present decision;

31. *Invites* the scientific community and any other relevant actors to accelerate the development of scenarios and models for biodiversity and ecosystem services for potential use in assessments by the Platform, addressing the gaps identified in the *Methodological Assessment Report on Scenarios and Models of Biodiversity and Ecosystem Services*;[14]

32. *Also invites* the scientific community and other relevant actors, in particular indigenous peoples and local communities, to discuss the opportunities and limits of, as well as test, as appropriate, the nature futures framework, a flexible tool to support the development of scenarios and models of desirable futures for people, nature and Mother Earth;

[13] IPBES/9/INF/14, appendix II to the annex.

[14] IPBES (2016): Methodological Assessment Report on Scenarios and Models of Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. S. Ferrier, K. N. Ninan, P. Leadley, R. Alkemade, L. A. Acosta, H. R. Akçakaya, L. Brotons, W. W. L. Cheung, V. Christensen, K. A. Harhash, J. Kabubo-Mariara, C. Lundquist, M. Obersteiner, H. M. Pereira, G. Peterson, R. Pichs-Madruga, N. Ravindranath, C. Rondinini and B. A. Wintle (eds.). IPBES secretariat, Bonn, Germany. 348 pages. https://doi.org/10.5281/zenodo.3235428.

VI

Improving the effectiveness of the Platform

33. *Takes note* of the note by the secretariat on improving the effectiveness of the Platform;[15]

34. *Requests* the Bureau, the Multidisciplinary Expert Panel and the Executive Secretary, in accordance with their respective mandates, to continue to take into account the recommendations set out in the report on the review of the Platform at the end of its first work programme in the implementation of the rolling work programme of the Platform up to 2030 and report to the Plenary at its tenth session on further progress, including on further issues and solutions;

35. *Welcomes* the note by the Bureau and the Multidisciplinary Expert Panel on the use and impact of the conceptual framework of the Platform;[16]

36. *Invites* the Multidisciplinary Expert Panel and the Bureau to take into account the conclusions presented in the note referred to in paragraph 3 above when guiding and supporting the application of the conceptual framework by Platform experts and others;

37. *Invites* Governments and relevant stakeholders from all regions to increase the number of their nominations for experts, to nominate experts from all relevant fields of expertise and to strengthen gender balance in their nominations;

38. *Notes with appreciation* the progress made by the Bureau and the Multidisciplinary Expert Panel in developing terms of reference for a midterm review of the 2030 rolling work programme of the Platform, which will be conducted between the tenth and twelfth sessions of the Plenary, and invites members, observers and other stakeholders to provide their comments on the draft terms of reference to the secretariat by 31 August 2022;

39. *Recognizes* the importance of ensuring the full and effective participation of all members and observers, in particular from developing countries, in proposed online activities, thereby enhancing the inclusivity of online modalities, with due consideration of time differences, for the implementation of activities under the programme of work of the Platform;

40. *Welcomes* the recommendations for streamlining future scoping processes under the Platform provided by the Bureau and the Multidisciplinary Expert Panel[17] and encourages their application in future scoping processes;

VII

Technical support for the work programme

41. *Requests* the secretariat, in consultation with the Bureau and in accordance with the approved budget set out in the annex to decision IPBES-9/3, to establish the institutional arrangements necessary to implement the technical support required for the work programme.

[15] IPBES/9/11.

[16] IPBES/9/INF/20.

[17] See IPBES/9/8, section I.

Annex I to decision IPBES-9/1

Scoping report for a methodological assessment of the impact and dependence of business on biodiversity and nature's contributions to people

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

A. Scope and rationale

1. The methodological assessment of the impact and dependence of business on biodiversity and nature's contributions to people will strengthen the knowledge base to support efforts by business to achieve the 2050 Vision for Biodiversity and the objectives of the Convention on Biological Diversity, which are the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources. The assessment will support the 2030 Agenda for Sustainable Development and its Sustainable Development Goals, and inform other relevant multilateral environmental agreements, processes and efforts.

2. The assessment will categorize the dependencies and impacts of business and financial institutions on biodiversity and nature's contributions to people, which incorporates ecosystem services and other analogous concepts, including in relation to indigenous peoples and local communities. It will assess methods for measuring direct dependencies and impacts and, where appropriate, indirect dependencies and impacts, and will assess options for actions by businesses and by others, including Governments, the financial sector, indigenous peoples and local communities, and civil society, that interact with business.

3. Businesses depend on and benefit from biodiversity and nature's contributions to people in various ways and to varying extents and have a range of positive and negative impacts on both biodiversity and nature's contributions to people. Engaging businesses and the financial sector is essential to address conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.

4. Improved understanding and awareness of the dependencies and impacts of businesses, throughout value chains,[1] on biodiversity, and improved approaches for measurement, are important for businesses to understand the variety of relevant risks and opportunities, and to assess and monitor performance. Improved understanding and systematic reporting are important for promoting accountability and transparency, improving producer and consumer knowledge of impacts and dependencies, developing an enabling policy environment, informing regulatory agencies, and guiding financing decisions and investments, taking into account, where relevant, existing international obligations. Improved understanding of the role of innovation, technological development and application are important to support the conservation and sustainable use of biodiversity.

5. Initiatives have emerged to support these efforts, and this assessment can help bring clarity to potential conflicts and relevant gaps in approaches for measurement in the context of different activities and sectors.

6. Efforts to improve consistency in measures of dependencies and impacts will need to account for region-specific and sector-specific challenges, including those faced by developing countries. These efforts will also need to consider the capacity, technical and technological differences among businesses, including micro-, small and medium-sized enterprises, as well as those of indigenous peoples and local communities and marginalized populations. Standardized and business-specific approaches for measurement and reporting can be important for efficient, effective, transparent, and robust environmental governance.

B. Timeline and geographical coverage

7. The assessment will be global in scope and address issues related to all sectors and business types. Regional adaptations and applications, including past and present examples, will also be considered across terrestrial, freshwater and marine ecosystems.

[1] Taking into account, where relevant, existing international obligations.

8. The assessment will be carried out following the fast-track approach for thematic and methodological assessments.

C. Methodological approach

9. The assessment report will consist of a summary for policymakers and six chapters, each with an executive summary of the key findings most relevant to the target audience. The assessment will also identify key gaps in knowledge, data, methodologies, and reporting standards.

10. The assessment will draw on scientific literature, indigenous and local knowledge, and grey literature, in line with the procedures for the preparation of deliverables of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES),[2] including on IPBES assessments, and on relevant reports or other materials prepared by existing reporting initiatives and by public and private entities. The assessment will present relevant case studies at various scales, as appropriate.

11. The assessment will be consistent with the IPBES conceptual framework.[3]

12. The work will be carried out by a balanced, highly interdisciplinary team of experts, including practitioners, with expertise in dependencies and impacts on biodiversity and nature's contributions to people from all relevant business sectors. The expert team will draw from a diverse range of backgrounds (e.g., academia, business and industry, government, civil society), and a diverse range of disciplines (e.g., accounting, climatology, ecology, economics, finance, gender studies, hydrology, law, management science, material design and engineering, public health, risk assessment, trade). The interdisciplinary team will draw from a diverse range of knowledge sources (e.g., business and finance knowledge, governmental policy and regulatory knowledge, indigenous and local knowledge, natural and social science knowledge and expertise).

13. The task force on knowledge and data will support experts in their work on data and information and in their identification of knowledge gaps and, following the approval of the assessment, promote knowledge generation to address the gaps identified.[4]

14. Addressing and working with indigenous and local knowledge in the assessment will be in line with the approach to recognizing and working with indigenous and local knowledge in IPBES[5] and relevant guidance regarding its implementation provided by the task force on indigenous and local knowledge.[6]

15. The task force on capacity-building will support the development and uptake of the assessment in accordance with objective 2 on building capacity of the IPBES work programme up to 2030 and the IPBES capacity-building rolling plan.[7, 8]

16. The task force on policy tools and methodologies will assist in identifying and assessing relevant policy tools and frameworks and perform work to increase the policy and business relevance of the assessment and its use in decision-making, once approved.[9]

17. The task force on scenarios and models will support the use of models and scenarios in assessing impacts of business on biodiversity, and of transformative pathways in improving biodiversity and business outcomes.

18. Coordination and facilitation between this assessment and the nexus assessment and the transformative change assessment will be ensured to enable synergies and complementarity and to avoid duplication of scope and work. To achieve this, the Multidisciplinary Expert Panel and the Bureau will facilitate discussions among the co-chairs of the on-going assessments and their technical support units.

[2] See annex I to decision IPBES-3/3.

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

[4] The mandate of the task force may be subject to change at the tenth session of the Plenary.

[5] Set out in decision IPBES-5/1, annex II.

[6] The mandate of the task force may be subject to change at the tenth session of the Plenary.

[7] The mandate of the task force may be subject to change at the tenth session of the Plenary.

[8] The capacity-building rolling plan is available at www.ipbes.net/sites/default/files/ipbes_capacity-building_rolling_plan_and_executive_summary_0.pdf.

[9] The mandate of the task force may be subject to change at the tenth session of the Plenary.

19. The summary for policymakers will be available in all official languages of the United Nations and will be printed on demand, resources permitting.

20. The length of the summary for policymakers should remain within a limit[10] of approximately 8,500 words. Indicative word limits are also provided in the chapter outline below.

21. Communication and outreach will be undertaken from the outset and during the development of the assessment in order to build engagement with the wider knowledge community and the end users of the assessment, in particular businesses.

22. Technical support will be provided by a technical support unit, which will work in close collaboration with the groups of experts producing other IPBES assessments and with the IPBES task forces, and their respective technical support units.

II. Chapter outline

23. **Chapter 1. Setting the scene** *(indicative length ~10,200 words)*. Chapter 1 will describe the purpose of the assessment and the intended audiences. It will introduce the issues to be assessed in the subsequent chapters and discuss the links between the assessment and other relevant IPBES assessments, and how the assessment links to the IPBES conceptual framework, the 2050 Vision for Biodiversity and the 2030 Agenda for Sustainable Development and its Sustainable Development Goals.

24. Chapter 1 will present a definition of business and a typology of the different business sectors, including both formal and informal economic sectors, for use throughout the assessment, referencing existing typologies. The typology will clarify that some financial institutions are also businesses and will be included in the assessment within both the business and financial sectors. It will frame the relationship of dependencies and impacts of businesses of different types and sizes on biodiversity and nature's contributions to people but will leave it to later chapters to develop typologies of dependencies (chapter 2) and impacts (chapter 3). It will highlight key issues and provide definitions, within the context of their use in the assessment, of important terms.

25. **Chapter 2. How does business depend on biodiversity?** *(indicative length ~12,750 words)*. Chapter 2 will describe various existing methods and approaches that can be or have been used to identify the dependencies and interdependencies of business on biodiversity and nature's contribution to people. It will identify common features of these approaches, important differences in framing and definitions, data requirements and common datasets, their uptake to date, and implications for decision-making by businesses, financial institutions, consumers, Governments, and civil society.

26. Chapter 2 will provide a typology of the dependencies of businesses of different types and sizes on biodiversity and nature's contributions to people. Chapter 2 will describe the various ways in which businesses depend on biodiversity and nature's contributions to people, while also noting potential synergies and trade-offs with other societal goals. Chapter 2 will provide concrete examples of dependencies in both qualitative and quantitative terms. Chapter 2 will describe issues that arise when characterizing dependencies and related risks.

27. **Chapter 3. How does business impact biodiversity?** *(indicative length ~12,750 words)*. Chapter 3 will describe various existing methods and approaches that can be or have been used to identify positive and negative business impacts on biodiversity and nature's contribution to people. It will identify common features of these approaches, important differences in framing and definitions, data requirements and common datasets, their uptake to date, and implications for decision-making by businesses, financial institutions, consumers, Governments, and civil society.

28. Chapter 3 will provide a typology of the impacts of businesses of different types and sizes on biodiversity and nature's contributions to people. Chapter 3 will describe the various ways in which businesses impact biodiversity and nature's contributions to people, while also noting potential synergies and trade-offs with other societal goals. It will describe how impacts link to dependence, risk and opportunity and intersect with indigenous peoples and local communities. Chapter 3 will describe pathways to impacts and provide best estimates for the impact of individual sectors of business on

[10] The indicative limits to the length of the summary for policymakers and the chapters of the assessment are expressed as numbers of words. They exclude literature cited, figures and tables. For reference, a laid-out A4 page with two columns of text contains about 850 words. The limits indicated for the summary for policymakers and the chapters would thus correspond to the following number of laid-out pages: summary for policymakers, 10 pages; chapter 1, 12 pages; chapter 2, 15 pages; chapter 3, 15 pages; chapter 4, 24 pages; chapter 5, 18 pages; and chapter 6, 24 pages.

biodiversity and nature's contributions to people. Chapter 3 will describe issues that arise when characterizing impacts and related risks.

29. **Chapter 4. Approaches for measurement of business dependencies and impacts on biodiversity** (*indicative length ~15,300 words)*. Chapter 4 will build on chapters 2 and 3 by assessing approaches for measurement, which include frameworks, metrics, indicators, models, data, and tools, relevant to describing the impacts and dependencies of business on biodiversity and nature's contributions to people. Chapter 4 will present an inventory of approaches for measurement of biodiversity impacts and dependencies, including a description of their scientific robustness. It will also discuss important gaps in approaches for measurement (including data gaps). It will develop a typology of approaches for measurement and discuss the need for common data sets.

30. Chapter 4 will assess how various approaches for measurement and valuation characterize the issues identified in chapter 2 and chapter 3. Recognizing that measuring biodiversity and nature's contributions to people at different spatial and temporal scales is challenging, and that there is no single approach to measurement that fits all contexts, the chapter will describe fitness for purpose for various approaches for measurement in different contexts.

31. Chapter 4 will present examples of ways in which various approaches for measurement have been applied, highlighting challenges associated with their use, including costs of measurement, data accessibility and data and knowledge gaps.

32. Chapter 4 will illustrate how different approaches for measurement map against the IPBES conceptual framework. The chapter will also illustrate how different approaches for measurement are used to assess the contribution of business sectors to the 2050 Vision for Biodiversity, the Convention on Biological Diversity and the post-2020 global biodiversity framework, other biodiversity-related conventions, and, where relevant, to the 2030 Agenda for Sustainable Development and its Sustainable Development Goals.

33. **Chapter 5. Businesses as key actors of change: options for action by business** *(indicative length ~20,400 words)*. Chapter 5 will address the role and responsibility of businesses in contributing to transformative change and sustainable development to achieve the 2050 Vision for Biodiversity. It will describe the motivations of and challenges and opportunities faced by businesses in different sectors, including the financial sector, when taking action. It will also describe the obstacles faced by business and how to overcome them, also considering capacity-building and technical and scientific cooperation. It will discuss the influence of approaches for measurement addressed in chapter 4 on sustainable outcomes for biodiversity and nature's contributions to people.

34. Chapter 5 will describe potential options for the ways in which businesses may use measures of dependence and impact in their operations and in strategic planning to improve their social, economic and environmental performance, including but not limited to those highlighted in approved IPBES assessments, considering the wide range of sustainable approaches and tools to enhance biodiversity and nature's contributions to people. It will also describe how the outcomes of such approaches for measurement may be used to influence social norms, consumption and production patterns, and public policy and what effect this influence, both positive and negative, could have on biodiversity and nature's contributions to people.

35. Chapter 5 will also consider synergies and trade-offs between approaches and evidence of whether holistic effects of combinations of approaches are effective in achieving transformative change. Chapter 5 will provide examples of collaboration in industry associations, with indigenous peoples and local communities, and among businesses within and across sectors that promote biodiversity and nature's contributions to people.

36. Chapter 5 will highlight key opportunities for businesses by sector to improve performance, including the role of accountability and reporting, and to contribute to international sustainable development and biodiversity commitments.

37. **Chapter 6. Creating an enabling environment for business: options for actions by Governments, the financial sector and civil society** (*indicative length ~20,400 words*). Businesses operate within larger societal and legal contexts. Recognizing there is no one size fits all approach, chapter 6 will describe potential options for the ways in which Governments, the financial sector, civil society, indigenous peoples and local communities and others may use measures of dependence and impact to promote and evaluate business actions and performance, and how the outcomes of such approaches for measurement can be integrated into other aspects of sustainability, considering the motivations described in chapter 5. Potential options will consider different socioeconomic conditions and capacity, technical, technological and financial challenges, including those faced by developing countries.

38. Chapter 6 will describe potential options for the ways in which Governments may use measures of dependence and impact. It will also describe how the outcomes of such approaches for measurement can be used in the context of policy development, infrastructure design, regulation, monitoring, and procurement, among others, to enhance biodiversity and nature's contributions to people, considering, where relevant, existing international obligations.

39. Chapter 6 will describe potential options for the ways in which the financial sector may use measures of dependence and impact to influence businesses and describe how the outcomes of such approaches for measurement can be used in activities such as environmental, social and governance scoring and criteria, the operation of capital markets, lending, investing, insurance and financial analysis.

40. Chapter 6 will describe potential options for the ways in which civil society, consumers, non-governmental organizations, international organizations, indigenous peoples and local communities may use measures of dependence and impact to inform their approach to monitoring government and corporate behaviour. It will also describe how the outcomes of such measures can be used to raise awareness of business dependencies and impacts, of risks associated with biodiversity loss, and of benefits of business action and collaboration to support biodiversity and nature´s contribution to people, including in relation to indigenous peoples and local communities.

III. Timetable

41. The following table presents the overall timeline of the assessment.

Overall timeline of the methodological assessment of the impact and dependence of business on biodiversity and nature's contributions to people

Date	*Actions*
2022	
Third quarter	The Plenary, at its ninth session (3–9 July 2022), is invited to approve the undertaking of the business and biodiversity assessment and to request the secretariat to establish the institutional arrangements necessary to mobilize the technical support required for the assessment.
Third quarter	The Multidisciplinary Expert Panel, through the secretariat, requests nominations by Governments and other stakeholders of experts, including practitioners from the business and finance sectors.
Third and fourth quarters	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 IPBES deliverables, including by implementing the procedure for filling gaps in expertise.
End of fourth quarter	The selection decision is communicated to nominees.
2023	
First quarter	Meeting of the management committee (co-chairs, members of the Bureau and Multidisciplinary Expert Panel assigned by these bodies to the assessment) to plan the first author meeting and online preparatory meetings for the expert group to prepare for the start of the assessment.
Second quarter	First author meeting with co-chairs, coordinating lead authors, lead authors, review editors and members of the Bureau and Multidisciplinary Expert Panel who are part of the management committee of the assessment.
Third quarter	Preparation of the first drafts of the chapters.
2024	
First and second quarters	Preparation of the first drafts of the chapters and outline of the summary for policymakers
Late first quarter	Writing workshop to advance the preparation of the summary for policymakers with co-chairs, coordinating lead authors and members of the Bureau and Multidisciplinary Expert Panel who are part of the management committee of the assessment.
Second quarter	First external review (eight weeks) – drafts of the chapters and of the summary for policymakers are made available for review by Governments and experts.
Third quarter	Second author meeting with co-chairs, coordinating lead authors, lead authors, review editors and members of the Bureau and Multidisciplinary Expert Panel who are part of the management committee of the assessment.

Date	*Actions*
	Back to back with the second author meeting, a meeting to advance the preparation of the summary for policymakers with co-chairs, coordinating lead authors and members of the Bureau and Multidisciplinary Expert Panel who are part of the management committee of the assessment.
2025	
Early first quarter	Additional review of the summary for policymakers.
Second quarter	Online writing workshop to advance the preparation of the summary for policymakers with co-chairs, coordinating lead authors and members of the Bureau and the Multidisciplinary Expert Panel who are part of the management committee of the assessment.
Second half	Authors finalize draft chapters and the draft summary for policymakers
Second half	Final review (six weeks) – final draft of the summary for policymakers made available for review by Governments.
Second half	Consideration by the Plenary, at its twelfth session, of the summary for policymakers for approval and of the chapters for acceptance.
Second half	Communication activities in relation to the assessment.

Annex II to decision IPBES-9/1

Deliverables for objective 2 of the rolling work programme of the Platform up to 2030 and workplan for the task force on capacity-building for the intersessional period 2022–2023

I. Deliverables for objective 2

1. In response to the request by the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) in decision IPBES-7/1, the task force on capacity-building prepared a set of deliverables for objective 2 of the rolling work programme of the Platform up to 2030,[1] namely:

(a) For objective 2 (a), on enhanced learning and engagement:

(i) Implementation of the fellowship programme;[2]

(ii) Implementation of the training and familiarization programme;[3]

(iii) Organization of science-policy dialogues with national focal points;

(b) For objective 2 (b), on facilitated access to expertise and information:

(i) Support for the uptake of approved assessment reports and other deliverables, and encouragement of the development of communities of practice around them;

(ii) Convening of regular meetings of the capacity-building forum;

(c) For objective 2 (c), on strengthened national and regional capacities:

Encouragement of the development of science-policy platforms, networks and assessments for biodiversity and ecosystem services at the national and (sub)regional levels.

II. Workplan for the intersessional period 2022–2023[4]

A. Objective 2 (a): enhanced learning and engagement

2. Activities for the implementation of the fellowship programme will include:

(a) For the nexus assessment, participation of fellows (13 fellows, selected in 2021) in the second author meeting for the assessment (March 2023);

(b) Participation of fellows of the scenarios and models task force (5 fellows, selected in 2019) to attend a working meeting or workshop on scenarios and models (October/November 2022);

(c) Organization of an annual fellows training workshop for fellows of ongoing assessments and of the scenarios and models task force. The workshop will enhance the capacity of fellows regarding key topics relevant to their activities in IPBES and provide an opportunity for

[1] Objective 2 has three subobjectives corresponding to the three components of the capacity-building rolling plan for building and developing the capacity of individuals and institutions to address the priority needs identified by the IPBES Plenary in decisions IPBES-3/1 and IPBES-5/1. The capacity-building rolling plan is available at www.ipbes.net/sites/default/files/ipbes_capacity-building_rolling_plan_and_executive_summary_0.pdf.

[2] See https://ipbes.net/ipbes-fellowship-programme.

[3] Including webinars and other online resources, guides, learning materials and workshops for actors in the science-policy interface facilitated by IPBES.

[4] All activities described in the present section will be undertaken with due regard to achieving balanced participation across regions, gender, disciplines and knowledge systems, including indigenous and local knowledge systems, in line with the functions, operating principles and institutional arrangements of IPBES. Activities and programmes are designed and implemented to facilitate engagement of IPBES members and stakeholders from all age groups and inclusion of indigenous peoples and local communities.

fellows to engage with and learn from each other, both within and between different cohorts of fellows (April/May 2023);

(d) Provision of support to the IPBES fellows and alumni network, including through promoting engagement of fellows and alumni in activities supporting the implementation of objective 2, mapping and further developing activities of the network and organizing an online meeting to facilitate knowledge exchange across the various cohorts of the fellowship programme (September 2022);

(e) Issuance of a call for the nomination of early-career individuals by Governments and organizations and selection of up to 12 fellows for the business and biodiversity assessment by the assessment management committee (August 2022).[5]

3. Activities for the implementation of the training and familiarization programme for IPBES experts and others involved in the science-policy interface will include:

(a) Further development and promotion of the IPBES webinar series, online tools and videos on approved IPBES assessment reports and other products. A pilot educational interface on the findings of the invasive alien species assessment will be developed in collaboration with the management committee of the invasive alien species assessment and the communications team at the IPBES secretariat;

(b) Further provision of support to relevant training activities tailored to IPBES needs, catalysed by IPBES and developed by other organizations and institutions (e.g., printed or electronic materials, feedback on draft agendas or contact details for relevant IPBES experts);

(c) Organization of a youth workshop to strengthen the engagement of young people in the work of IPBES and to support the uptake of assessments among young people, other individuals and organizations, subject to the availability of in-kind contributions (October 2022);[6]

(d) Collaboration with the task force on indigenous and local knowledge in the organization of workshops and webinars as part of the implementation of the approach to recognizing and working with indigenous and local knowledge in IPBES.

4. Activities related to science-policy dialogue meetings will include the organization of:

(a) An online dialogue with national focal points on the nomination of experts for the business and biodiversity assessment (September 2022);

(b) An online dialogue with national focal points in support of the further development of the draft methodological guidance for using the nature futures framework, a flexible tool to support the development of scenarios and models of desirable futures for people, nature and Mother Earth (September 2022);

(c) An in-person dialogue meeting with new IPBES members and observer States to develop capacity in relation to IPBES deliverables and processes and encourage IPBES membership (first quarter of 2023/tenth session of the IPBES Plenary).

5. Activities related to dialogue workshops for stakeholders will include the organization of:

(a) An online dialogue meeting with stakeholders on the nomination of experts for the business and biodiversity assessment (September 2022);

(b) Online dialogue meetings with stakeholders and experts during the first external review of the nexus and transformative change assessments (January/February 2023).

B. Objective 2 (b): facilitated access to expertise and information

6. Activities to support the uptake of approved assessment findings and other deliverables and encourage the development of communities of practice around them will include:

(a) Distribution of the call for nominations of experts and fellows for the business and biodiversity assessment through relevant networks to encourage applications from as wide a range of experts as possible and provision of assistance to the Multidisciplinary Expert Panel in the

[5] For information on the selection of fellows see www.ipbes.net/sites/default/files/ipbes_fellowship_programme_selection_process_and_criteria.pdf.

[6] The workshop will target individuals representing youth organizations from different United Nations regions that have an active voice in their community. An open call, including selection criteria, will be issued.

implementation of the process for filling gaps in expertise for the assessment expert group, where required;

(b) Issuance of a call for contributions to support the uptake of approved IPBES assessments and other products, including for the sustainable use and values assessments[7] (July 2022);

(c) Convening of online or, where possible, subject to the availability of resources, in-person regional dialogues with national focal points and policymakers to support the uptake of approved assessment findings;

(d) Provision of support for uptake activities for IPBES deliverables organized by other organizations (e.g., printed or electronic materials, feedback on draft agendas or contact details for relevant IPBES experts);

(e) Further encouragement of communities of practice[8] to facilitate access to expertise and information relevant to IPBES; engagement with relevant networks and institutions, consistent with the policies and procedures of IPBES; and exploration of opportunities to support potential communities of practice around the values and sustainable use assessments and upcoming assessments;

(f) Collaboration with the other task forces in catalysing activities to further build capacity in relation to IPBES approaches and processes, including the approach to recognizing and working with indigenous and local knowledge in IPBES.

7. A sixth meeting of the capacity-building forum will be convened to facilitate engagement with, and to build and further enhance collaboration among, relevant multilateral environmental agreements, organizations and institutions for the implementation of the IPBES rolling capacity-building plan. The specific theme of the forum meeting will be identified by the task force and agreed on by the Bureau (February 2023).

C. Objective 2 (c): strengthened national and regional capacities

8. The task force will continue to support the Platform's engagement with and strengthening of national and (sub)regional science-policy platforms, networks and assessments for biodiversity and ecosystem services. Activities undertaken will focus on facilitating sharing of knowledge and best practices among existing national and (sub)regional science-policy platforms, as well as those interested in establishing a new platform and organizations and institutions that could support such efforts. An online dialogue workshop will be organized as part of this work (February 2023).

[7] An open call will be launched for institutions and organizations to organize uptake events or in other ways encourage the use of findings from IPBES deliverables. Organizers of uptake activities may, upon request, receive non-monetary support, as relevant.

[8] In this context, communities of practice are groups of experts, policymakers and/or practitioners who work to increase access to expertise and information on a specific topic or focus area, both to support the implementation of the IPBES work programme and to increase the reach and impact of work programme deliverables. These communities of practice are self-organizing groups and may have different modalities and working arrangements.

Annex III to decision IPBES-9/1

Deliverables for objective 3 (a) of the rolling work programme of the Platform up to 2030 and workplan for the task force on knowledge and data for the intersessional period 2022–2023

I. Advanced work on knowledge generation catalysis

A. Deliverables for objective 3 (a) – knowledge generation catalysis

1. In response to the request by the Plenary in decision IPBES-7/1, the subgroup on knowledge generation catalysis of the task force on knowledge and data prepared a set of deliverables relating to the knowledge generation catalysis aspects of objective 3 (a), namely:

(a) Review and further development of the process for catalysing the generation of new knowledge, the living guidelines to support assessment authors in identifying knowledge gaps and the template for the collection of knowledge gaps, based on lessons learned from ongoing assessments;

(b) Provision of support to assessment authors in identifying knowledge gaps, including in producing a list of knowledge gaps as part of the assessments, using the guidelines and template;

(c) Promotion of actions by relevant external organizations and initiatives to address identified knowledge gaps;

(d) Monitoring of the impact of knowledge generation catalysis efforts to effectively fill the identified gaps.

B. Workplan for the intersessional period 2022–2023[1]

2. The task force will review and further develop the process for catalysing the generation of new knowledge, the living guidelines to support assessment authors in the identification of knowledge gaps and the template for the collection of knowledge gaps, based on lessons learned from ongoing assessments, also taking into account future plans for work by IPBES.

3. Activities to support assessment authors throughout the assessment in the process of identifying knowledge gaps, including in producing a list of knowledge gaps as part of the ongoing assessments, using the guidelines and template and ensuring its earliest possible availability in accordance with IPBES procedures, will include:

(a) Online or in-person sessions for the invasive alien species assessment (second half of 2022);

(b) Online or in-person sessions or presentations for the second author meetings of the nexus and transformative change assessments (March/May 2023).

4. Activities to promote the uptake of identified knowledge gaps by relevant external organizations and initiatives will include:

(a) Regional online or in-person dialogues with programmers and funders on the generation of new knowledge, focused mainly on the gaps identified in the *Methodological Assessment Report on the Diverse Values and Valuation of Nature*[2] and the *Thematic Assessment Report on the Sustainable Use of Wild Species*[3] (January/February 2023);

[1] All activities described in the present annex will be undertaken in line with relevant rules and procedures of the Platform.

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

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

(b) Exchange of information with programmers and funders on the projects they initiate to address the gaps identified in completed assessment reports;

(c) Provision of access to the identified gaps to national focal points and the scientific community.

5. Monitoring of the impact of knowledge generation catalysis efforts to effectively fill the identified gaps will include:

(a) Implementation of a monitoring plan for the catalysis of new knowledge generation based on the gaps identified in IPBES assessment reports;

(b) Updating of the monitoring plan as necessary based on lessons learned.

II. Advanced work on data management

A. Workplan deliverables for objective 3 (a) – data management

6. In response to the request by the Plenary in decision IPBES-7/1, the subgroup on data management of the task force on knowledge and data prepared a set of deliverables on the data management aspects of objective 3 (a), namely:

(a) Data and knowledge management policy and long-term vision on data and knowledge management;

(b) Provision of support to assessment authors on aspects relating to the data and knowledge management policy and the generation, management, handling and delivery of IPBES products;

(c) Engagement, as appropriate, with other entities, initiatives and service providers on data and knowledge relevant to the Platform.

B. Workplan for the intersessional period 2022–2023

7. Activities related to the data and knowledge management policy and the long-term vision on data and knowledge management will include:

(a) Review of and, if needed, revision of the IPBES data and knowledge management policy;

(b) Support to and monitoring of the implementation of the IPBES data and knowledge management policy in work on all the objectives of IPBES;

(c) Further development of the long-term vision on data and knowledge management, including a draft implementation workplan for its targets up to 2025.

8. Activities to support the assessment of the sustainable use of wild species and the assessment of the diverse values and valuation of nature on aspects relating to the IPBES data and knowledge management policy and the generation, management, handling and delivery of IPBES products will include the provision of support to the technical support units of those assessments for the wrap-up, documentation and archiving of the work carried out during the assessments.

9. Activities to support assessment authors on aspects relating to the data and knowledge management policy and the generation, management, handling and delivery of IPBES products will include:

(a) Continued support for the implementation of the data and knowledge management policy, including the development of data management reports and handling of indigenous and local knowledge;

(b) Continued support for access to and handling of a wide range of external datasets;

(c) Continued support for the application of advanced data technology to support the assessment process.

10. In support of the current IPBES programme of work, the task force will engage, as appropriate, with other entities, initiatives and service providers on data and knowledge relevant to the Platform.

Annex IV to decision IPBES-9/1

Deliverables for objective 3 (b) of the rolling work programme of the Platform up to 2030 and workplan for the task force on indigenous and local knowledge for the intersessional period 2022–2023

I. Deliverables for objective 3 (b)

1. In response to the request by the Plenary in decision IPBES-7/1, the task force on indigenous and local knowledge prepared a set of draft deliverables for objective 3 (b), namely:

(a) Implementation of the approach to recognizing and working with indigenous and local knowledge in IPBES;

(b) Strengthening of the implementation of the participatory mechanism.

II. Workplan for the intersessional period 2022–2023

2. Activities for the implementation of the approach to recognizing and working with indigenous and local knowledge in IPBES will include:

(a) Support for the selection of assessment expert groups:

(i) Distribution of the call for nominations of experts and fellows for the business and biodiversity assessment through relevant networks to encourage applications from indigenous and local knowledge experts and experts on indigenous and local knowledge;

(ii) Provision of assistance to the Multidisciplinary Expert Panel in the implementation of the process for filling gaps in expertise for the business and biodiversity assessment expert group, where required;

(b) Support for indigenous and local knowledge liaison groups[1] for assessments:

(i) Provision of capacity-building and training on recognizing and working with indigenous and local knowledge to the indigenous and local knowledge liaison groups for the invasive alien species, nexus and transformative change assessments, in collaboration with the capacity-building task force, where appropriate;

(ii) Provision of ongoing support to indigenous and local knowledge liaison groups in using multiple types of evidence on indigenous and local knowledge and in identifying gaps relating to indigenous and local knowledge, including by mapping knowledge, innovations and practices of indigenous peoples and local communities of relevance to the assessment;

(c) Dialogue workshops with experts on indigenous and local knowledge and members of indigenous peoples and local communities:

In-person or hybrid dialogue workshops for the review of the first order draft of the chapters of the nexus and transformative change assessments (January/February 2023);

(d) Peer review of assessment reports:

(i) Peer review by the task force of the first order draft of the chapters of the nexus and transformative change assessments (January/February 2023);

(ii) Dissemination of the invitation to review through relevant networks;

[1] An indigenous and local knowledge liaison group is a group of assessment experts who are tasked with working with indigenous and local knowledge in their chapter and with ensuring coherent narratives and approaches throughout the assessment report.

(iii) In collaboration with the capacity-building task force, provision of support regarding content related to indigenous and local knowledge to the dialogue workshops for national focal points and stakeholders during the first external review of the nexus and transformative change assessments;

(e) An online call for contributions on indigenous and local knowledge for the nexus, transformative change, and business and biodiversity assessments;

(f) Post-assessment activities:

(i) Collation of materials of relevance to indigenous peoples and local communities from the *Thematic Assessment Report on the Sustainable Use of Wild Species*[2] and the *Methodological Assessment Report on the Diverse Values and Valuation of Nature*[3] and their dissemination in all six official United Nations languages, including, in collaboration with the task force on capacity-building, to national and regional platforms on biodiversity and ecosystem services and to indigenous peoples and local communities;

(ii) With the task forces on capacity-building and policy tools and methodologies, provision of support for the development of materials from completed assessments by other organizations and institutions, and for related uptake and outreach activities by other organizations and institutions;

(iii) Provision of input to the in-person dialogue meeting with new IPBES members and observer States to develop capacity in relation to IPBES deliverables and processes and encourage IPBES membership (first quarter of 2023);

(g) Provision of support for the work of other task forces regarding aspects related to indigenous and local knowledge, including:

(i) Further work with the task force on scenarios and models relating to indigenous and local knowledge and scenarios of the future;

(ii) Support for the implementation of the IPBES data and knowledge management policy;

(h) Review of the inclusion of indigenous and local knowledge in IPBES functions and deliverables, with a focus on the *Global Assessment Report on Biodiversity and Ecosystem Services*,[4] the *Thematic Assessment Report on the Sustainable Use of Wild Species* and the *Methodological Assessment Report on the Diverse Values and Valuation of Nature*, and other activities since 2019, including proposals for strengthening the implementation of the approach to recognizing and working with indigenous and local knowledge in IPBES, and preparation of a brief report, for consideration by the Plenary at its tenth session, with regard to:

(i) The ways in which indigenous and local knowledge has been included in IPBES products, as well as in national and regional assessments that are based on IPBES methodologies;

(ii) Enhancing methodologies for working with indigenous and local knowledge;

(iii) Enhancing the participation of indigenous peoples and local communities in IPBES.

(i) Further development, as necessary, of the methodological guidance on the implementation of the approach to recognizing and working with indigenous and local knowledge in IPBES, based on the outcomes of the review referred to in subparagraph (h) above.

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

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

[4] IPBES (2019): Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. E. S. Brondizio, J. Settele, S. Díaz, and H. T. Ngo (eds.). IPBES secretariat, Bonn, Germany. 1148 pages. https://doi.org/10.5281/zenodo.3831673.

3. Activities to strengthen the implementation of the participatory mechanism, including:

(a) Continued support for the Multidisciplinary Expert Panel in the implementation of the participatory mechanism by the task force on indigenous and local knowledge;

(b) Engagement and capacity-building with indigenous peoples and local communities through assessment activities, including support for indigenous and local knowledge liaison groups, assessment dialogue workshops and post-assessment activities undertaken for the implementation of the approach to recognizing and working with indigenous and local knowledge in IPBES, as described above;

(c) Engagement and capacity-building with indigenous peoples and local communities through webinars and side events at relevant meetings, both online and in-person, including provision of information on how to participate in IPBES activities;

(d) Further development of the indigenous and local knowledge section of the IPBES website, for improved usability and display of information, including a page on the website that will, as part of the participatory mechanism, facilitate ongoing interaction, input and discussion among indigenous peoples and local communities;

(e) Further development of the communications and engagement strategy for strategic partners and collaborative supporters (e.g., International Indigenous Forum on Biodiversity and Ecosystem Services), including developing an informal network of entities working with indigenous peoples and local communities, including indigenous peoples' organizations and local community organizations at all levels;

(f) Monitoring of participation of experts on indigenous and local knowledge and indigenous and local knowledge experts in IPBES processes.

Annex V to decision IPBES-9/1

Deliverables for objective 4 (a) of the rolling work programme of the Platform up to 2030 and workplan for the task force on policy tools and methodologies for the intersessional period 2022–2023

I. Deliverables for objective 4 (a)

1. In response to the request by the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) in decision IPBES-7/1, the task force on policy tools and methodologies prepared a set of draft deliverables for objective 4 (a) of the rolling work programme of the platform up to 2030, namely:

(a) Promotion of and support for the use of findings of IPBES products in decision-making;

(b) Strengthening of the policy relevance of IPBES assessments;

(c) Provision of support to authors of the policy chapters in IPBES assessment reports.

II. Workplan for the intersessional period 2022–2023

2. Activities to promote and support the use of IPBES products in decision-making will include:

(a) Convening up to four dialogue workshops for actors at the science-policy interface in order to share experiences and better understand and promote the use of completed IPBES assessment reports and other IPBES products in decision-making processes, in synergy with the task force on capacity-building. Dialogue workshops will be held online or in person and, to the extent possible and when advantageous, as part of or back to back with existing regional or subregional meetings. Dialogue workshops will be primarily targeted to IPBES national focal points, other government officials, relevant IPBES experts, and regional and subregional organizations and other stakeholders working on matters related to the scope of each dialogue (fourth quarter of 2022 and first quarter of 2023/tenth session of the IPBES Plenary);

(b) Providing input to the meeting of IPBES national focal points organized by the task force on capacity-building to increase government participation in the use of IPBES deliverables and processes;

(c) Providing further support to strengthen the IPBES impact tracking database (TRACK) and promote its use;

(d) Identifying entry points and potential modalities for increasing the use of IPBES products by intergovernmental processes at the global, regional and subregional levels within their mandates, as well as potential barriers that may hinder engagement;

(e) In order to improve the communication and uptake of IPBES assessments, creating, with the IPBES communications team, fact sheets for the *Thematic Assessment Report on the Sustainable Use of Wild Species*[1] and the *Methodological Assessment Report on the Diverse Values and Valuation of Nature*[2] and a draft fact sheet for the invasive alien species assessment, targeted to user groups that may include policymakers, indigenous peoples and local communities, businesses and the general public. Like all communication products, fact sheets will not be made public until the summaries for policymakers are approved and will provide links to the underlying summaries and assessments. At the tenth session of the Plenary, the task force on capacity-building will report on the process used to develop the fact sheets and will provide advice on the preparation of versions for

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

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

additional user groups, with a view to planning the development of future fact sheets and assessing their impact, while taking into consideration additional suggestions by IPBES members.

3. Activities to strengthen the policy relevance of IPBES assessments will include peer review by task force members of the first order drafts of the chapters of the nexus and transformative change assessment reports and the promotion of wider engagement of the policy and practitioner community in the peer review.

4. Activities to support authors of policy chapters in IPBES assessment reports will include:

(a) Convening and/or contributing to webinars for authors of the nexus and transformative change assessment reports based on the methodological guidance on how to assess policy instruments and facilitate the use of policy support tools and methodologies through IPBES assessments;

(b) Ensuring that supporting materials are ready for use by the authors of the business and biodiversity assessment report;

(c) Providing support for the identification of policy-related knowledge gaps in IPBES assessment reports through the process led by the task force on knowledge and data.

Annex VI to decision IPBES-9/1

Foundations of the nature futures framework

A flexible tool to support the development of scenarios and models of desirable futures for people, nature and Mother Earth[1]

Introduction

1. The nature futures framework is a flexible tool to support the development of scenarios and models of desirable futures for people, nature and Mother Earth. The framework was developed in direct response to the conclusions of the *Methodological Assessment Report on Scenarios and Models of Biodiversity and Ecosystem Services* (IPBES, 2016b), which identified limitations of existing scenario approaches in their usefulness for biodiversity and ecosystem services. It fills a gap by providing a tool for the development of nature-centric scenarios that address the diversity of human-nature relationships to inform context- and place-specific policy options based on locally held values of nature in order to achieve a good quality of life (including human well-being and living well in balance and harmony with Mother Earth).

I. How scenarios are used in policymaking and decision-making on biodiversity and ecosystem services

A. Use of scenarios and models

2. Scenarios and models of changes in biodiversity and ecosystem services are powerful tools for informing decision makers and other stakeholders on potential future impacts of changes across scales on nature, nature's contributions to people and good quality of life. "Nature", "nature's contributions to people" and "good quality of life", as well as "instrumental values", "intrinsic values" and "relational values", are terms used in the conceptual framework of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), in the preliminary guide on values and throughout IPBES assessments and documents, noting that nature embodies different concepts for different people, including biodiversity, Mother Earth, systems of life and other analogous concepts.

3. In line with this terminology, scenarios are alternative pathways to possible futures for one or more key components in a system, particularly for drivers of change in nature and nature's contributions to people, including alternative policy or management options (IPBES, 2016a; Díaz et al., 2018).[2] Models are qualitative or quantitative representations of key components of a system and of relationships between those components, and can be used to translate scenarios of possible futures for drivers of change or policy interventions into projected consequences for nature and nature's contributions to people (IPBES, 2016a). In combination, scenarios and models can play important roles in relation to the major phases of the policy cycle, which are (i) agenda setting, (ii) policy design, (iii) policy implementation and (iv) policy review, as described in the *Methodological Assessment Report on Scenarios and Models* (figure SPM.2). "Exploratory scenarios" can contribute to problem identification and agenda setting by examining a range of plausible futures, while "intervention scenarios" can contribute to policy design and implementation by evaluating alternative policy or management options, through either "target-seeking" or "policy-screening" analysis (IPBES, 2016b, figure SPM.2). Scenarios and models have been used in the IPBES *Global Assessment Report on Biodiversity and Ecosystem Services* (IPBES, 2019a) and its *Summary for Policymakers* (2019b) and regional assessments of biodiversity and ecosystem services (IPBES, 2018a; 2018b; 2018c; 2018d) to provide assessments of the current status of biodiversity and ecosystem services and to explore projections under different potential futures.

[1] Though not repeated every time throughout the present document after "nature futures framework", it is understood that any mention of the framework implicitly includes this subtitle.

[2] For the list of full references, see the appendix to the present annex.

4. The *Global Assessment Report* indicates that the decline of biodiversity and ecosystem services is projected to continue or worsen in many future scenarios that consider rapid human population growth, unsustainable consumption and declining production (see, for example, figure SPM.8 of the *Global Assessment Report*. In contrast, scenarios with assumptions of low-to-moderate human population growth across scales, low carbon growth, a circular economy, and transformative changes will better support long-term sustainability and good quality of life (IPBES, 2019a, figure SPM.8; 2019b).

B. Limitations of current scenarios and models

5. As is pointed out in the IPBES *Methodological Assessment Report on Scenarios and Models*, most existing scenario approaches for biodiversity and nature's contributions to people have a number of shortcomings. The obvious main limitation is the extent of knowledge about the properties of nature and of its components, and about the interactions and feedback processes associated with those components. Most existing scenario approaches, especially at the global and regional scales, have been developed to address climate change issues rather than biodiversity and ecosystem services issues per se, and are limited to assessing the impacts of drivers on states of nature and nature's contributions to people. They often consider biodiversity gains or losses as an endpoint, rather than recognizing the full range of interconnections and feedback between nature and people that are central to the IPBES conceptual framework (Seppelt et al., 2020).

6. Existing scenario approaches are also limited in their ability to incorporate diverse values, norms and policy objectives related to nature conservation, sustainable use and good quality of life (IPBES, 2016a). As a result of limited stakeholder involvement, scenarios have often underrepresented the diversity of worldviews and indigenous and local knowledge (Obermeister, 2019). Furthermore, institutional barriers to the use of scenario outcomes and the timing of presenting scenarios to governments (e.g., "windows of opportunity" – see Kingdon, 1984) may need to be addressed, with a view to increasing the chance that scenario-related insights are taken up in political agendas. Capacity and technological constraints often limit the ability to monitor the status and trends of biodiversity and further deepen institutional barriers.

7. Because all models have strengths and weaknesses (IPBES, 2016a), it is vital that their capacities and limitations be carefully evaluated and communicated in assessment and decision-making processes (see Sietz and van Dijk, 2015; Fonte et al., 2012). The limitations of current scenarios and models are not necessarily a reflection of deficiency in approach – rather, they are a reflection of the degree of complexity involved in solving current problems. Existing approaches often explore the impacts of direct and indirect drivers on nature and people (e.g., adverse climate change impacts on biodiversity and ecosystem services), rather than focusing on the transformative changes required to achieve international goals for people and nature under relevant multilateral environmental agreements and the 2030 Agenda for Sustainable Development.

C. Addressing shortcomings for the development and use of scenarios and models in the context of nature and nature's contributions to people

8. Addressing the shortcomings of existing scenario approaches for nature and nature's contributions to people at different scales requires better integration of the feedback processes between nature and good quality of life for people. Participatory approaches are also required to involve stakeholders in the development of future scenarios for nature and people and to incorporate multiple value perspectives and different pathways to achieve societal goals and to address the social, economic and environmental dimensions of sustainable development (IPBES, 2016a; Rosa et al., 2017; Pereira et al., 2020; Kim et al., 2021, in preprint; Lundquist et al., in preparation). The inclusion of values of nature can enhance the development of new global scenarios for nature and nature's contributions to people, as it allows the diversity of human-nature relationships to inform context- and place-specific policy options based on locally held values of nature (Braun and Castree, 2005; Cronon, 1996; Descola, 2013; Head, 2016; Latour, 2004; Robin, Sörlin and Warde, 2013).

9. To address these requirements, the IPBES Plenary mandated the expert group (2016–2019) and task force (2019–2023) on scenarios and models to catalyse the development of new scenarios that can better inform policymaking for nature and nature's contributions to people (see the terms of reference of the task force, set out in annex II to decision IPBES-7/1), building on the IPBES *Methodological Assessment Report on Scenarios and Models*. To capture the plurality of value perspectives on nature, the former expert group and current task force have worked on a new framework for the development of nature-centred and Mother Earth–centred scenarios, called the "nature futures framework". Having a framework that is applicable across different scales, regions and

value perspectives allows the development of comparable new scenarios to better support future IPBES assessments.

D. Development of a new framework to promote the effective use of scenarios for nature and nature's contributions to people

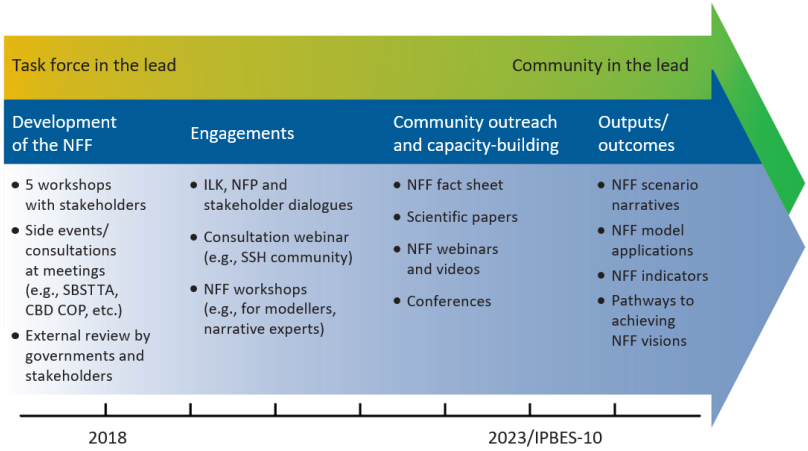
10. This framework is consistent with the conceptual framework of IPBES. Ideally, scenarios based on the nature futures framework will include all six primary interlinked elements of the IPBES conceptual framework representing natural and social systems and their interrelationships: nature; nature's contributions to people; anthropogenic assets; institutions and governance systems and other indirect drivers of change; direct drivers of changes; and good quality of life (Diaz et al., 2015, 2018). The nature futures framework provides a tool to help identify which of these elements are emphasized when creating scenarios of desirable futures. Scenarios focusing on "nature for society" place a greater emphasis on nature's material and regulating contributions to people. Scenarios focusing on "nature for nature" place a greater emphasis on the nature element of the IPBES conceptual framework. Scenarios focusing on "nature as culture"/"one with nature" have a more complex relationship to the IPBES conceptual framework and are best understood as emphasizing the cultural contexts that permeate all relationships between people and nature (Diaz et al., 2018). Nature futures framework scenarios aim to achieve good quality of life, including eliminating poverty, eliminating hunger, and achieving education for all and gender equality.

11. Specifically, the framework aims to catalyse the development of scenarios that focus on achieving a world that realizes the 2050 Vision for Biodiversity of "Living in harmony with nature" (Convention on Biological Diversity, 2010), the goals of other relevant multilateral environmental agreements and the 2030 Agenda for Sustainable Development and its Sustainable Development Goals. These visions and goals require reversing declines in biodiversity and nature's contributions to people (Pereira et al., 2020). The framework is explicitly designed to include multiple specific values of nature in scenarios and models. Positive or desirable nature futures represent scenarios in which biodiversity and nature's contributions to people are improved in one or more value perspectives in relation to the current situation.

12. Creating scenarios and models based on multiple values can make them more inclusive. The explicit inclusion of multiple values of nature enables scenarios and models to better consider and incorporate indigenous and local knowledge systems and values, as well as to better consider sociocultural contexts and alternative governance and economic systems, diverse methods of sustainable resource utilization and diverse approaches to biodiversity conservation. The IPBES task force on scenarios and models is developing methodological guidance on how to apply the nature futures framework to the development of quantitative and qualitative scenarios for a diverse range of settings and scales. A draft of the methodological guidance is set out in appendix I to the annex to document IPBES/9/INF/16, and further dialogues are planned with national focal points, indigenous and local knowledge experts, scientific communities and IPBES stakeholders to further iterate the methodological guidance of the nature futures framework between the ninth and tenth sessions of the IPBES Plenary.

13. The present document does not contain actual scenarios developed on the basis of the nature futures framework. Scenario development by the scientific community with models and other tools, and narrative development and refinement with stakeholders, still need to be carried out and are planned for the next four years, with final outputs available in time for use in a potential second edition of the *Global Assessment Report on Biodiversity and Ecosystem Services* (see figure 1).

Figure 1
Envisioned process for catalysing a community of practice for developing scenarios based on the nature futures framework over time[a]



Abbreviations: CBD – Convention on Biological Diversity; COP – Conference of the Parties; ILK – indigenous and local knowledge; NFF – nature futures framework; NFP – national focal points; SBSTTA – Subsidiary Body on Scientific, Technical and Technological Advice; SSH – social sciences and humanities.

[a] The yellow-green colour gradient represents transitions in the lead of the listed activities from the IPBES task force on scenarios and models to the broader community. While the weight of the involvement of the task force is transferred to the broader community over time, there has been strong stakeholder engagement from the onset of the process. The blue arrow presents the activities of the task force on scenarios and models. It is anticipated that community engagement and outreach activities will lead to the formation of research consortiums and funded research projects that will achieve the goal of creating multi-scale (from local to global) scenarios based on the nature futures framework, which would continue to be developed and refined over the long term.

II. Foundations of the nature futures framework

A. History of the nature futures framework and its contribution to catalysing the development of scenarios and models

14. The nature futures framework can be used to describe a diverse set of desirable futures for nature and people that differ in their emphasis on the types of values that people assign to nature (Pereira et al., 2020). It takes into consideration the call for plural values of nature and nature's contributions to people to be recognized, referring to the preliminary guide regarding diverse conceptualization of multiple values of nature and its benefits, including biodiversity and ecosystem services, developed under the first IPBES work programme.[3] This preliminary guide on values, as well as the *Methodological Assessment Report on the Diverse Values and Valuation of Nature* (IPBES, 2022), are underpinned by the view that the use of diverse conceptualizations of multiple values of nature and its benefits to people must be acknowledged and fostered in order to adequately address the challenge of global sustainability (Pascual et al., 2017; IPBES, 2015). Whereas both the *Methodological Assessment Report on the Diverse Values and Valuation of Nature* and the nature futures framework incorporate values of nature, they have different purposes. The former assesses existing literature and describes different approaches to the conceptualization of values of nature, whereas the latter serves as a starting point for co-development of scenarios of desirable futures for nature. The framework emphasizes the intrinsic ("nature for nature"), instrumental ("nature for society") and relational ("nature as culture"/"one with nature") values, identified as the specific values referred to in the *Methodological Assessment Report on the Diverse Values and Valuation of Nature* (Figure SPM.2).

15. Taking into account the properties, interactions and feedback that operate in nature, the nature futures framework emerged from stakeholder consultations that gathered a wide range of visions of desirable futures for biodiversity and people (Lundquist et al., 2017; Pereira et al., 2020). This framework allows those involved in scenario-building to recognize and address, in a more explicit manner, plural values ascribed to nature and nature's contributions to people, which conventional scenario-building methods often fail to capture. The framework places the specific values that humans assign to nature at its core. The underlying assumption for formulating any type of desirable future vision of nature is that nature is valued much more in the future, but the reasons why it is valued – the

[3] IPBES/4/INF/13, annex III.

underlying value perspectives – can vary widely. The diverse ways in which humans value nature can be used to develop a diverse range of possible future scenarios that address current declines in nature and nature's contributions to people across all three value perspectives, as evidenced in the IPBES *Global Assessment Report on Biodiversity and Ecosystem Services*. The framework is novel in that it explicitly provides a space for the inclusion of relational values within a global biodiversity scenarios framework, acknowledging that relational values, such as cultural identity, sense of place, traditions and reciprocity with nature, are often poorly represented or marginalized in assessments of biodiversity and ecosystem services.

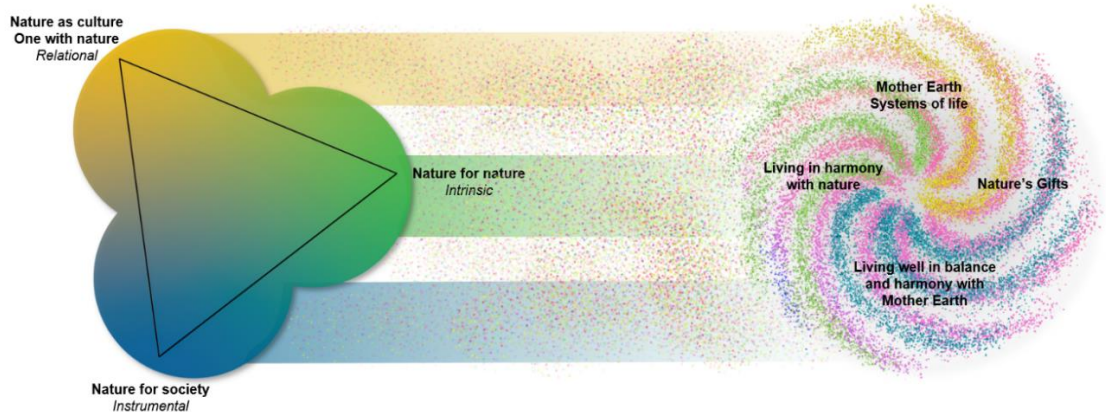
B. Description of the nature futures framework

16. The nature futures framework represents the plurality of value perspectives on human-nature relationships that forms the foundation for the development of desirable future scenarios for people and nature (figure 2). Within the triangle in figure 2, each corner of the triangle illustrates the orientation towards one of the following three value perspectives on the relationship between humans and nature: nature for nature, emphasizing intrinsic values: nature as culture/one with nature, emphasizing relational values; and nature for society, emphasizing instrumental values (see glossary in appendix II to the annex to document IPBES/9/INF/16). The space within the triangle represents a continuum or gradient between these three value perspectives. As such, all the potential locations within the triangle relate to each of the three corners and thus offer some combination of all three value perspectives. It is important to bear in mind that the vertices, or corners, of the triangle offer extreme cases of what could be considered specific value perspectives to navigate to a "desirable future for nature".

17. The nature futures framework has been developed together with different stakeholders through engagement with them since 2016 in order to address gaps in current scenarios and modelling processes for nature and nature's contributions to people by opening up to more diverse perspectives on how the future is conceptualized. However, while it attempts to be as inclusive as possible, like all tools, it has limitations, including the fact that it may not be able to fully encapsulate all ontologies, cosmologies, knowledge systems and world-views. The examples in the right-hand part of figure 2 are taken from the IPBES conceptual framework but are not an exhaustive list of knowledge systems and world-views. The bands and dots indicate that the left- and right-hand parts of the figure are intimately related, but in complex ways that cannot be described in a one-to-one relationship. Currently available scenarios and models are not well adapted to the right-hand part of the figure, and so one objective of the scientific community should be to find tools that can be used to work with it.

18. Desirable futures developed through the nature futures framework may be place- or context-specific, subject to local cultures and values. Examples of the use of the framework to develop "desirable futures for nature" are provided in the boxes in section 4.2 of the methodological guidance. The framework does not aim to identify any particular narratives or scenarios as preferred based on their location in the nature futures framework, reflecting the fact that value preferences vary culturally and geographically.

Figure 2
The nature futures framework, a flexible tool to support the development of scenarios and models of desirable futures for people, nature and Mother Earth[a]



[a] The nature futures framework presents three value perspectives of nature in a triangle. In the "nature for nature" perspective, people view nature as having intrinsic value, and value is placed on the diversity of species, habitats, ecosystems and processes that form the natural world, and on nature's ability to function autonomously.

The “nature as culture”/“one with nature” perspective primarily highlights relational values of nature, where societies, cultures, traditions and faiths are intertwined with nature in shaping diverse biocultural landscapes. The “nature for society” perspective highlights the utilitarian benefits and instrumental values that nature provides to people and societies. The coloured circles associated with each value perspective blend together where they intersect, indicating that they are not mutually exclusive. The specific value perspectives that define the corners of the triangular representation of nature futures emerged through numerous stakeholder consultations with a focus on providing a framework for scenario development. According to other knowledge systems and world-views, as portrayed in the right-hand part of the figure, human-nature relationships may be perceived in different ways. The examples in the right-hand part of the figure are taken from the IPBES conceptual framework but are not an exhaustive list of knowledge systems and world-views. The bands and dots indicate that the right-hand part of the figure and the left-hand part of the figure are intimately related, but in complex ways that cannot be described in a one-to-one relationship.

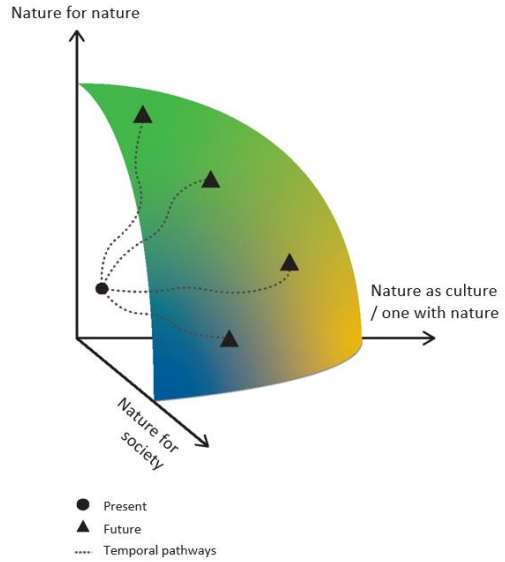
19. In the “nature for nature” perspective, people view nature as having intrinsic value, and value is placed on the diversity of species, habitats, ecosystems and processes that form the natural world, and on nature’s ability to function autonomously. The “nature as culture”/“one with nature” perspective primarily highlights relational values of nature, where societies, cultures, traditions and faiths are intertwined with nature in shaping diverse biocultural landscapes. The “nature for society” perspective highlights the utilitarian benefits and instrumental values that nature provides to people and societies. The task force will undertake further development of the nature futures framework and through that work provide a more comprehensive list of examples of how different locations in the framework could be operationalized. Some examples are presented in document IPBES/9/INF/16.

20. While the nature futures framework builds on the concepts of intrinsic, relational and instrumental values, the three value perspectives do overlap to some degree and the framework allows for their coexistence and complementarity, addressing some of the criticisms expressed by Piccolo (2017) about value dimensions. The framework allows recognition of the diversity of ways in which people define “nature”, and of the understanding that knowledge-scapes, interactions and identity influence the values that individuals attribute to nature (Berghöfer et al., 2022). “Nature for nature” both represents intrinsic values and indirectly provides instrumental values though the non-material benefits of healthy ecosystems. “Nature for society” is dominated by the direct and indirect use of a subset of instrumental values, while “nature as culture” captures relational values, including the non-material contributions of nature. The intrinsic value of nature is integral to many cultures, which is where “nature for nature” and “nature as culture” meet one another.

21. The state of the planet or any place on the planet can be assessed across these three perspectives (figure 3). The goal for scenario development with the nature futures framework is to improve the state of a place across one or more of these three perspectives. Therefore, one aims to move a place from a current condition, one that is often degraded from one or more of these perspectives (figure 3), to a higher score. As one approaches high scores in one of the perspectives, there may be trade-offs with others. Trade-offs (and potential conflicts of interests to be resolved) might arise between different spatial-temporal scales within and among particular perspectives of nature. At the global level, one may be speaking of multi-decadal timescales (e.g., 2020–2050), while at the local scale, multi-year timescales for scenario development (e.g., 5–10 years) may be more adequate.

Figure 3

Conceptual illustration of how the nature futures framework, a flexible tool to support the development of scenarios and models of desirable futures for people, nature and Mother Earth, can be used to define pathways toward desirable futures[a]



[a] Each axis corresponds to one of the three value perspectives for nature. In this example, actions take place to improve nature and nature's contributions to people across one or more of the value perspectives toward a more desirable nature futures frontier. Therefore, temporal pathways (represented by the dotted lines in the figure) can be plotted from the present state to the future. Increasing scores for one value perspective may require trade-offs with another value perspective (modified from Kim et al., 2021, in preprint). Not visualized here are the temporal pathways of the highly multi-dimensional space representing the variety of cosmologies and world-views of people (as depicted in the right-hand part of figure 2).

C. What is unique in the nature futures framework?

22. In the context of the conceptual framework of IPBES, the nature futures framework is intended to catalyse the development of scenarios that can be compared and does not pre-define specific characteristics for individual scenarios; rather, it allows the development of place- and context-specific scenarios that represent local and regional priorities, ecologies and values. The use of a single framework combining different specific value perspectives for nature facilitates its application to a diverse range of regional and socioeconomic contexts, where common and specific features allow for technical comparison across scenarios. It also promotes investigation of cross-scale interactions that cannot be suitably captured at single or multiple independent scales.

23. Common features reflect shared global goals for nature and nature's contributions to people across all scenarios based on the nature futures framework. In contrast, specific features reflect commonalities for scenarios at a particular location within the nature futures framework (see section 3 of the methodological guidance).

24. To apply the framework, users can develop scenarios based on the nature futures framework within a range of sociocultural, economic and political contexts and across a wide range of spatial scales, which may identify pathways towards desirable futures that achieve the goals of relevant multilateral environmental agreements and the Sustainable Development Goals. The specificity of individual scenarios can thus be easily translated to local conditions and applied to issues of interest to local policymakers.

25. The nature futures framework can be differentiated from scenario approaches such as representative concentration pathways (RCPs) and shared socioeconomic pathways (SSPs), developed in support of the assessments of the Intergovernmental Panel on Climate Change (van Vuuren et al., 2014). The SSP-RCP framework may be perceived as prescriptive in terms of outcomes for greenhouse gas concentrations and many other direct and indirect drivers of climate change, such as human population growth, economic growth and agricultural productivity (O'Neill et al., 2017). Box 3 of the methodological guidance illustrates how the nature futures framework can be matched across shared socioeconomic pathways and representative concentration pathways, and sets out various efforts currently in place to use SSPs as entry points into novel scenarios based on the nature futures framework.

III. Concluding remarks

26. The testing of the nature futures framework, including discussing its opportunities and limits, by interdisciplinary research communities, communities of practice, policymakers, indigenous peoples and local communities, and other stakeholders may lead to the further development, identification and utilization of new qualitative and quantitative scenarios and model applications. This, in turn, may provide valuable input for future IPBES assessments and trigger much-needed actions and societal transformations towards desirable futures for people and nature.

Appendix to annex VI to decision IPBES-9/1

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Annex VII to decision IPBES-9/1

Deliverables for objective 4 (b) of the rolling work programme of the Platform up to 2030 and workplan for the task force on scenarios and models of biodiversity and ecosystem services for the intersessional period 2022–2023

I. Deliverables for objective 4 (b)

1. In response to the request by the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) in decision IPBES-7/1, the task force on scenarios and models of biodiversity and ecosystem services prepared a set of draft deliverables for objective 4 (b), namely:

(a) Provision of support on scenarios and models for IPBES assessments;

(b) Catalysing of the further development of scenarios and models for future IPBES assessments.

II. Workplan for the intersessional period 2022–2023

2. Activities to provide support on scenarios and models for IPBES assessments will include:

(a) Distribution of the IPBES call for nominations of authors and fellows for the business and biodiversity assessment through relevant networks to encourage applications by experts on scenarios and models; and provision of assistance to the Multidisciplinary Expert Panel in the implementation of the process for filling gaps in expertise for the assessment expert group, where required;

(b) Organization of webinars for authors of the nexus and transformative change assessment reports to support the development of scenario chapters for those reports based on the *Methodological Assessment Report on Scenarios and Models*;[1]

(c) Peer review by the task force of the first order drafts of the chapters of the nexus and transformative change assessment reports and dissemination of the invitation to review through relevant networks (January/February 2023);

(d) Provision of support for the invasive alien species, nexus and transformative change assessments on the use of currently available scenarios, including those developed for previous global-scale assessments and the Shared Socioeconomic Pathways framework assessed by the Intergovernmental Panel on Climate Change;

(e) Organization of an online or in-person workshop with experts on indigenous and local knowledge and members of indigenous peoples and local communities, aimed at discussing indigenous and local knowledge and scenarios, including ways to address scenarios in ongoing and future assessments. This could be focused on developing approaches to gather and upscale local-scale scenarios by indigenous peoples and local communities, as well as to understand how this work can inform IPBES assessments at different spatial scales. The workshop will consider diverse indigenous and local knowledge systems and reflect on concepts including but not limited to “nature as culture”/”one with nature”, “living in harmony with nature” and “living in harmony with Mother Earth” (September 2022).

[1] IPBES (2016): Methodological Assessment Report on Scenarios and Models of Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. S. Ferrier, K. N. Ninan, P. Leadley, R. Alkemade, L. A. Acosta, H. R. Akçakaya, L. Brotons, W. W. L. Cheung, V. Christensen, K. A. Harhash, J. Kabubo-Mariara, C. Lundquist, M. Obersteiner, H. M. Pereira, G. Peterson, R. Pichs-Madruga, N. Ravindranath, C. Rondinini and B. A. Wintle (eds.). IPBES secretariat, Bonn, Germany. 348 pages. https://doi.org/10.5281/zenodo.3235428.

3. Activities to catalyse the further development of scenarios and models for future IPBES assessments will include:

(a) Based on considerations put forth at the ninth session of the Plenary, the further development of the foundations of the nature futures framework, a flexible tool to support the development of scenarios and models of desirable futures for people, nature and Mother Earth,[2] including but not limited to alignment with the IPBES conceptual framework and the findings of the IPBES *Methodological Assessment Report on the Diverse Values and Valuation of Nature*.[3] An update on the nature futures framework foundations and a synthesis of catalysed work on scenario development across knowledge systems will be provided to the Plenary at its tenth session;

(b) Further development of the draft methodological guidance on the use of the nature futures framework as one of the available tools for facilitating a comparison of existing scenarios and models in IPBES assessments and as a tool for further catalysing the development of new scenarios of desirable futures for people and nature to serve as potential input for upcoming IPBES assessments while accommodating the needs of policymakers. This work will be undertaken in direct response to the conclusions of the IPBES *Methodological Assessment Report on Scenarios and Models*, which identified limitations of existing scenario approaches in their usefulness for biodiversity and ecosystem services, particularly in their ability to incorporate policy objectives related to nature conservation and good quality of life. This work will also consider technical and capacity gaps in adapting the nature futures framework to specific contexts. The further-developed methodological guidance will be presented to the Plenary for its information at its tenth session;

(c) Organization of an online dialogue with IPBES national focal points in support of the further development of the draft methodological guidance for testing the nature futures framework and discussing its limits and opportunities, in collaboration with the IPBES capacity-building task force (September 2022);

(d) Organization of an online or in-person workshop with experts on scenarios and models, to catalyse the further development of scenarios and models for future IPBES assessments, including by testing the nature futures framework and discussing its limits and opportunities. The workshop would also serve to collect additional feedback on the methodological guidance for using the nature futures framework, including potential challenges involved in its application, and to further catalyse the development of qualitative and quantitative case studies that would be available for the nexus and transformative change assessments. Participants could include modellers, experts on social sciences and the humanities, policymakers and experts on indigenous and local knowledge (October 2022);

(e) Catalysing of the further development of scenarios and models, across knowledge systems, by various stakeholders for future IPBES assessments. This will be achieved through the following activities, which will all entail testing the nature futures framework and discussing its opportunities and limits:

(i) Encourage the publication of third-party research in external peer-reviewed journals and grey literature on scenarios and models (e.g., with illustrative examples of scenarios and models that used the nature futures framework) that provide the wider scientific community and future IPBES assessments with new and desirable futures for nature;

(ii) In collaboration with the IPBES task force on knowledge and data, undertake an effort to identify emerging publications and their underlying data sets on scenarios and models;

(iii) Organize capacity-building activities in collaboration with the task force on capacity-building on broader scenarios to facilitate the use of existing scenarios and models in IPBES assessments and catalyse the development of new scenarios and models, targeting Governments and IPBES stakeholders;

[2] Though not repeated every time throughout the present document after "nature futures framework", it is understood that any mention of the framework implicitly includes this subtitle.

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

(iv) For IPBES experts, provide guidance, without being prescriptive, on testing the possible use of the nature futures framework in IPBES assessments (e.g., to facilitate the comparability of existing scenarios and models for IPBES assessments);

(v) Support attendance at and development of talks and sessions for major conferences to catalyse the further development of scenarios and models for future IPBES assessments;

(vi) Explore the development of a knowledge base of case studies in collaboration with the task forces on knowledge and data and on indigenous and local knowledge.[4]

[4] A preliminary overview of articles in peer-reviewed journals was made available to the Plenary at its ninth session in appendix IV to the annex to document IPBES/9/INF/16.