Preamble

1. In decision IPBES-6/2, the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) requested the Multidisciplinary Expert Panel and the Bureau, supported by the secretariat, to finalise a draft strategic framework up to 2030 and elements of the work programme of the Platform for consideration and approval by the Plenary at its seventh session (IPBES 7), according to a series of steps outlined in that same decision.

2. The draft strategic framework up to 2030 and the draft elements of the work programme of the Platform have been developed as per the steps outlined in the decision, and have been brought together into a single document, "next work programme of IPBES", which is set out below for review by Governments and stakeholders, a requested in decision IPBES-6/2 (Para i).

3. The Executive Secretary issued a formal call for requests, inputs and suggestions, on short-time priorities and longer-term strategic needs on 11 July 2018 (EM/2018/14). The Multidisciplinary Expert Panel and the Bureau, in line with decision IPBES-6/2 and the procedure for receiving and prioritizing requests put to the Platform as set out in decision IPBES-1/3, have prioritized the requests, inputs and suggestions received. A report on the prioritization of requests, inputs and suggestions put to IPBES will be prepared for IPBES 7. The list of requests, inputs and suggestions received in response to the call can be found here[1]. A compilation will be presented in a document for the information of IPBES 7.

4. The Multidisciplinary Expert Panel and the Bureau, in order to address the request of the Plenary for a rolling work programme, as per decisions IPBES-5/3 and IPBES-6/2, have, in this draft work programme, prioritised a limited number of topics. The Plenary may consider approving this limited number of topics as a first step, and launching a second call for requests, inputs and suggestions, later in this work programme up to 2030.

5. The draft work programme presented below is made available to Governments and stakeholders for their comments. The Multidisciplinary Expert Panel and the Bureau are inviting broad comments on all aspects of this document, including on the proposed overall structure, objectives, deliverables and institutional arrangements. Comments on the prioritised topics are also welcome to help the Multidisciplinary Expert Panel and Bureau prepare for IPBES 7. The prioritised topics would, however, not be modified on the basis of these comments but will be considered by the Plenary as a whole.

6. In light of decision IPBES-6/2 (Para e), providing the opportunity for late submission of requests by multilateral environmental agreements, the IPBES secretariat may receive additional contributions which would be considered by the Multidisciplinary Expert Panel and Bureau and might affect this prioritisation.

7. The draft work programme presented below has been drafted as a concise document which will, once revised, form the basis for the approval of the next work programme by the Plenary at IPBES 7. It will be complemented by an appendix, not for approval, which would include background information on each deliverable, in particular on lessons learnt and progress achieved in the first work programme. It will be further complemented by two working documents and one information document, as follows: a report on the prioritization of requests, inputs and suggestions put to IPBES; a document on modalities for implementing the deliverables of the work programme, containing information on timing, milestones, types of groups to involve and their terms of reference; and an information document compiling all requests, inputs and suggestions received.

[1] All requests, inputs and suggestions are posted here: https://www.ipbes.net/requests-received-ipbes-work-programme

Work programme of IPBES up to 2030 – draft for consultation

I. Structure and elements

A. General considerations

1. The work programme of IPBES up to 2030 aims to achieve the **overall objective of IPBES** set out in the resolution establishing the Platform[2] to strengthen the science-policy interface for biodiversity and ecosystem services for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development.

2. The work programme of IPBES up to 2030 will implement the **four functions of IPBES**, defined in the resolution establishing the Platform[3] as follows:

- To identify and prioritize key scientific information needed for policymakers at appropriate scales and to catalyse efforts to generate new knowledge by engaging in dialogue with key scientific organizations, policymakers and funding organizations, but not to directly undertake new research;
- To perform regular and timely assessments of knowledge on biodiversity and ecosystem services and their interlinkages, which should include comprehensive global, regional and, as necessary, subregional assessments, methodological assessments, and thematic issues at appropriate scales and new topics identified by science and as decided upon by the Plenary;
- To support policy formulation and implementation by identifying policy-relevant tools, methodologies, such as those arising from assessments, to enable decision makers to gain access to those tools and methodologies and, where necessary, to promote and catalyse their further development;
- To prioritize key capacity-building needs to improve the science-policy interface at appropriate levels and then provide and call for financial and other support for the highest-priority needs related directly to its activities, as decided by the Plenary, and to catalyse financing for such capacity-building activities by providing a forum with conventional and potential sources of funding.

3. The work programme of IPBES up to 2030 will place a major emphasis on **promoting integration** across science, policy and practice, across scientific disciplines, across different types of knowledge, and across the four functions of IPBES.

4. The work programme of IPBES up to 2030 will give effect to the **operating principles of IPBES**[4]: collaborate with existing initiatives on biodiversity and ecosystem services; be scientifically independent and ensure credibility, relevance and legitimacy through peer review of its work and transparency in its decision-making process; use clear, transparent and scientifically credible processes for exchanging, sharing and using data, information and technologies; recognize and respect the contribution of indigenous and local knowledge to the conservation and sustainable use of biodiversity and ecosystems; provide policy-relevant information, but not policy-prescriptive advice; integrate capacity-building into all relevant aspects of its work; address terrestrial, marine and inland water biodiversity and ecosystem services and their interactions; recognize the need for the the full and effective participation of developing countries and balanced regional representation and participation in its structure and work; recognize the need for gender equity in all relevant aspects of its work; and ensure the full use of national, subregional and regional knowledge, as appropriate, including by ensuring a bottom-up approach.

5. The work programme of IPBES up to 2030 is understood as **a rolling work programme**, as per decisions IPBES-5/3 and IPBES-6/2, and would foresee the launch of one or more additional calls for

[2] UNEP/IPBES.MI/2/9, annex I, appendix I, sect. I.

[3] Ibid.

[4] Ibid., sect. II.

requests, inputs and suggestions, later in the period up to 2030, in addition to the first call launched in 2018, on which this work programme is based.

B. Objectives of the work programme of IPBES up to 2030

6. In line with decision IPBES-5/3, the work programme of IPBES up to 2030 will contribute to the strengthening of the science-policy interface of the 2030 Agenda for Sustainable Development, including the Sustainable Development Goals (Objective A), the biodiversity-related conventions, and other biodiversity and ecosystem services processes (Objective B), and the Paris climate agreement (Objective C). These three interdependent and overlapping objectives will aim at **strengthening the science-policy interface on biodiversity and ecosystem services, with a view to**:

- Objective A: **Conserving and sustainably using life on land and below water while achieving the other sustainable development goals**. This objective addresses the 2030 Agenda for Sustainable Development, including the Sustainable Development Goals;
- Objective B: **Achieving the 2050 vision for biodiversity where by 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people**. This objective, in line with the 2030 Agenda for Sustainable Development, addresses the post 2020 Biodiversity Framework, and is particularly relevant to the biodiversity related conventions and other biodiversity and ecosystem services processes;
- Objective C: **Conserving and sustainably using life on land and below water in a changing climate through nature-based solutions to mitigate and adapt to climate change**. This objective, in line with the 2030 Agenda for Sustainable Development, addresses the Paris Agreement on Climate Change.

C. Prioritised topics

7. To address the three work programme objectives outlined above, the following four topics have been prioritized based on the requests, inputs and suggestions[5] received:

- Synergies and tradeoffs between SDG 15 (life on land) and SDG 14 (life below water), and a subset of other SDGs: this subset would include food (SDG 2), water (SDG 3), health (SDG 6), and climate (SDG 13), and could also include energy (SDG 7).
- Biodiversity and ecosystem services: status, drivers, trends, impacts, future scenarios, and response options at the regional and global levels.
- Pathways towards transformational change: behavioural, social, cultural, economic, institutional, technical and technological determinants of transformational change, and how these may be deployed to achieve the 2050 Vision for Biodiversity.
- Impact of productive sectors on biodiversity: potential positive and negative impacts of productive sectors on biodiversity and ecosystem services, and criteria, metrics and indicators of the impacts of productive sectors on biodiversity and ecosystem services.

D. Deliverables

8. Each objective will be implemented by a set of deliverables related to the four functions of IPBES and to the other activities identified as important during the first work programme, including: work on indigenous and local knowledge, scenarios and models, values, and communication and stakeholder engagement. This structure is proposed to promote integration across the four functions. For example,

[5] The Multidisciplinary Expert Panel and the Bureau have considered and prioritized the requests, inputs and suggestions received in response to the call by the Executive Secretary issued on 11 July 2018 (EM/2018/14) as in line line with decision IPBES-6/2 and the procedure for receiving and prioritizing requests put to the Platform as set out in decision IPBES-1/3. A detailed report will be presented for the consideration of the Plenary. The requests, inputs and suggestions received can be found here. The Plenary may consider approving this limited number of topics as a first step, and launching a second call for requests, inputs and suggestions, later in this work programme up to 2030, in order to keep the work programme flexible.

work on capacity building would implement deliverables A2, B7 and C2, through activities specifically targeted at the three objectives. The annex to this document includes background information on these deliverables.

9. Regarding timing: Taking into consideration the date of finalization of deliverables B4 (sustainable use, 2021), B5 (invasive alien species, 2022) and B6 (values, 2021), deliverable A1 (nexus assessment) could tentatively be scoped in 2019 and delivered in 2025, deliverable B2 (global/regional assessment) scoped in 2023 and delivered in 2028, deliverable B1 (transformative change) scoped in 2020 and delivered in 2023, deliverable B3 (productive sectors assessment) scoped in 2021 and delivered in 2027, and deliverable C1 (technical paper on biodiversity ans climate change) delivered in 2020. This timing would also apply to activities associated to the assessment (e.g. capacity building, indigenous and local knowledge approach, etc.) as outlined below.

10. **Objective A: Strengthening the science-policy interface on biodiversity and ecosystem services, with a view to conserving and sustainably using life on land and below water, while achieving the other sustainable development goals.**

- **Deliverable A1:** Thematic assessment on synergies and tradeoffs between conserving and sustainably using life on land (SDG 15) and below water (SDG 14), while achieving a subset of sustainable development goals including: ending hunger (SDG 2), clean water (SDG 3), good health and well-being for people (SDG 6), and climate action (SDG 13). This assessment could also include energy (SDG 7). It is referred to in short as the "nexus assessment". A short concept note for this assessment is included in the annex to this document. This assessment will also contribute to objectives B and C.
- **Deliverable A2:** Building capacity in support of objective A**:** Implementation of activities as set out in the capacity-building rolling plan, welcomed by the Plenary in decision IPBES-5/1, as outlined further in the annex to this document, in support of assessment A1 and of objective A, in general.
- **Deliverable A3:** Mobilising knowledge in support of objective A: Implementation of activities, as outlined further in the annex to this document.
- **Deliverable A4:** Supporting policy formulation and implementation in support of objective A: Implementation of activities as outlined further in the annex.
- **Deliverable A5:** Implementing the IPBES approach to recognizing and working with indigenous and local knowledge[6] in support of objective A: support the production of assessment A1 and of other deliverables of objective A, through the activities summarised in the annex.
- **Deliverable A6:** Advancing work on scenarios and models for biodiversity and ecosystem services in support of objective A, as described in the annex.
- **Deliverable A7:** Strengthening the diverse conceptualization of multiple values of nature and its benefits, including biodiversity and ecosystem functions and services, in support of objective A: Provision of methodological guidance on values to assessments and other deliverables as necessary, as outlined further in the annex.
- **Deliverable A8:** Communicating and involving all stakeholders in relation with objective A: Continuation of the work to implement the IPBES communication and outreach strategy[7] and the IPBES stakeholder engagement strategy,[8] to increase the visibility of IPBES, and the uptake of its products by Governments and a diversity of other stakeholders.

[6] Decision IPBES-5/1, annex II.

[7] Decision IPBES-3/4, annex I.

[8] Decision IPBES-3/4, annex II.

11. **Objective B: Strengthening the science-policy interface on biodiversity and ecosystem services, with a view to achieving the 2050 vision for biodiversity where by 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people.**

- **Deliverable B1:** Thematic assessment of the behavioural, social, cultural, economic, institutional, technical and technological determinants of transformative change, to achieve the 2050 Vision for Biodiversity, referred to in short as "transformative change assessment". A short concept note for this assessment is included in the annex to this document.
- **Deliverable B2:** Global assessment of biodiversity and ecosystem services, with an integrated regional and cross-regional components. This would correspond to a repetition of the regional assessments and the global assessment, about ten years after the first of these IPBES reports were released in 2018 and 2019, respectively, which would be carried out in a single report as an integrated global/regional report. A short concept note for this assessment is included in the annex.
- **Deliverable B3:** Fast track methodological assessment of the criteria, metrics and indicators of the impacts of productive sectors on biodiversity and ecosystem services, referred to in short as "productive sectors assessment". A short concept note for this assessment is included in the annex.
- **Deliverable B4:** Thematic assessment of the sustainable use of wild species. This assessment was initiated as part of the first work programme in decision IPBES-6/1, and is included in the IPBES work programme up to 2030 as deliverable B4.
- **Deliverable B5:** Thematic assessment of invasive alien species: This assessment was initiated as part of the first work programme in decision IPBES-6/1, and is included in the IPBES work programme up to 2030 as deliverable B5.
- **Deliverable B6:** Methodological assessment on values: This assessment was initiated as part of the first work programme in decision IPBES-6/1, and is included in the IPBES work programme up to 2030 as deliverable B6.
- **Deliverable B7:** Building capacity in support of objective B**:** Implementation of activities as set out in the capacity-building rolling plan, welcomed by the Plenary in decision IPBES-5/1, as outlined further in the annex, in support of the production of assessments B1 to B5 and of objective B, in general.
- **Deliverable B8:** Mobilising knowledge in support of objective B: Implementation of activities, as outlined further in the annex.
- **Deliverable B9:** Supporting policy formulation and implementation in support of objective B: Implementation of activities as outlined further in the annex.
- **Deliverable B10:** Implementing the IPBES approach to recognizing and working with indigenous and local knowledge[9] in support of objective B: support the production of assessments B1 to B6 and other deliverables of objective B, through the activities summarised in the annex.
- **Deliverable B11:** Advancing work on scenarios and models for biodiversity and ecosystem services in support of objective B, as described in the annex.
- **Deliverable B12:** Strengthening the diverse conceptualization of multiple values of nature and its benefits, including biodiversity and ecosystem functions and services in support of objective B: Provision of methodological guidance on values to assessments and other deliverables as necessary, as outlined further in the annex.
- **Deliverable B13:** Communicating and involving all stakeholders in relation with objective B: Continuation of the work to implement the IPBES communication and outreach strategy[10] and the

[9] Decision IPBES-5/1, annex II.

[10] Decision IPBES-3/4, annex I.

IPBES stakeholder engagement strategy,[11] to increase the visibility of IPBES, and the uptake of its products by Governments and a diversity of other stakeholders.

12. **Objective C: Strengthening the science-policy interface on biodiversity and ecosystem services with a view to conserving and sustainably use life on land and below water in a changing climate, through nature-based solutions, to mitigate and adapt to climate change.**

- **Deliverable C1:** Technical paper on the synergies and trade offs between the need to protect biodiversity and to mitigate and adapt to climate change, derived from the reports published by IPBES and IPCC. A short concept note for this technical paper is included in the annex to this document.
- **Deliverable C2:** Building capacity in support of objective C**:** Implementation of activities as set out in the capacity-building rolling plan, welcomed by the Plenary in decision IPBES-5/1, as outlined further in the annex to this document.
- **Deliverable C3:** Mobilising knowledge in support of objective C: Implementation of activities, as outlined further in the annex to this document.
- **Deliverable C4:** Supporting policy formulation and implementation in support of objective C: Implementation of activities as outlined further in the annex.
- **Deliverable C5:** Implementing the IPBES approach to recognizing and working with indigenous and local knowledge[12] in support of objective C, through the activities summarised in the annex.
- **Deliverable C6:** Advancing work on scenarios and models for biodiversity and ecosystem services in support of objective C, as described in the annex.
- **Deliverable C7:** Strengthening the diverse conceptualization of multiple values of nature and its benefits, including biodiversity and ecosystem functions and services in support of objective C: Provision of methodological guidance on values to assessments and other deliverables as necessary, as outlined further in the annex.
- **Deliverable C8:** Communicating and involving all stakeholders in relation with objective C: Continuation of the work to implement the IPBES communication and outreach strategy[13] and the IPBES stakeholder engagement strategy,[14] to increase the visibility of IPBES, and the uptake of its products by Governments and a diversity of other stakeholders.

II. Institutional arrangements for the implementation of the work programme

A. Existing bodies

10. The following existing bodies will continue to perform their role:

a) *Plenary.* The Plenary is the Platform's decision-making body, comprising all members of the Platform (rule 2(c) of the rules of procedure for sessions of the Plenary of the Platform). Its mandate is set out in paragraph 7 of annex I to the resolution establishing the Platform.[15] The Plenary has overall responsibility for all aspects of the Platform, including the development and implementation of its work programme and final endorsement of all of its products and services. The Plenary initiates the development of additional deliverables and approves deliverables in accordance with the Platform's processes and procedures;

b) *Bureau.* The Bureau advises the Chair and the secretariat on the conduct of the business of the Plenary and its subsidiary bodies (rule 16 of the rules of procedure), and serves as observers to the Multidisciplinary Expert Panel, in line with rule 25. The Bureau is responsible for overseeing

[11] Decision IPBES-3/4, annex II.

[12] Decision IPBES-5/1, annex II.

[13] Decision IPBES-3/4, annex I.

[14] Decision IPBES-3/4, annex II.

[15] UNEP/IPBES.MI/2/9, annex I.

the administrative functions described in paragraph 14 of appendix I to the resolution establishing the Platform, which with regard to the work programme includes responsibility for issues relating to prioritization, budgeting and resource management, observance of policies and procedures, partnership arrangements, relationships with donors and preparation for the meetings of the Plenary;

c) *Multidisciplinary Expert Panel.* The Multidisciplinary Expert Panel (MEP) carries out the scientific and technical functions agreed upon by the Plenary (rule 24 of the rules of procedure), as described in paragraph 15 of appendix I to the resolution establishing the Platform. With regard to implementation of the work programme, the Panel has a wide range of responsibilities, including the management of the IPBES peer-review process to ensure the highest levels of scientific quality, independence and credibility for all products delivered by IPBES at all stages of the process, engaging the scientific community and other knowledge holders and ensuring scientific and technical coordination among structures set up under IPBES and facilitating coordination between IPBES and other related processes to build upon existing efforts.

d) *Secretariat.* The primary role of the secretariat of the Platform (rule 2(f) of the rules of procedure), as set out in paragraphs 19 and 20 of appendix I to the resolution establishing the Platform, is to ensure the efficient functioning of the Platform through its support for the Plenary, the Bureau and the Multidisciplinary Expert Panel, preparation of documents and organization of meetings, facilitation of communications and financial management. Additionally, the secretariat may be tasked by the Plenary with technical functions to support implementation of the work programme.

11. Regarding **frequency of sessions of the Plenary**:

The Plenary will continue to meet with a frequency varying between 12 and 18 months, depending on the needs of the work program (e.g., approval of scoping reports, approval and acceptance of assessments, selection of new MEP or Bureau memers) and available funding.

B. Expert groups and task forces

12. Like the first work programme, the implementation of the next work programme will be supported by time-bound and task-specific expert groups, task forces, technical support and technical support units. The following institutional arrangements will be made to implement the work programme. Information on specific terms of reference for these groups will be included in document IPBES/7/6/Add.2 on modalities:

a. **Time bound expert groups** will be established for the preparation of assessments or technical papers, in line with the procedures for the preparation of Platform deliverables as set out in annex I to decision IPBES-3/3, and will include:

(i) **Expert groups** to deliver a scoping report:

These groups will include scientists from all relevant disciplines, ILK experts and experts on ILK, and policy practitioners to increase relevance and credibility. Electronic conferences may be used as part of the scoping process to increase the amount and type of input into that process. Governments and other stakeholders will continue to be encouraged to nominate experts that reflect the practical experience in policy-making, research programming and capacity-building to increase policy relevance of the scoping report.

(ii) **Expert groups** to deliver an assessment report:

Governments and other stakeholders will continue to be encouraged to pay attention to the nomination of experts from all regions, of women, of social scientists and scholars from the humanities, of scientists from all relevant disciplines, and of ILK experts and experts on ILK.

(iii) **Expert groups** to deliver technical papers:

Technical papers are based on materials contained in the assessment reports and are prepared on topics deemed important to the Plenary. The Plenary may wish to initiate in the next few years, in addition to deliverable C1, other technical papers stemming from IPBES assessments as a way to make more use of IPBES assessments, and to better target particular audiences. Expert groups will be established for the duration of the production of a technical paper, upon request from the Plenary, for possibly 12 to

18 months. These expert groups would be composed of a subset of the authors of the original assessments, selected by MEP and Bureau.

(iv) Expert groups may also be established to perform other duties such as the development of policy support tools;

b. **Task forces** will be established for the duration of the IPBES work programme up to 2030 as follows:

(i) Terms of reference for the task forces will include a mechanism to allow for replacement of their members;

(ii) Task forces will include experts from assessment groups, and representatives of strategic partners of IPBES or collaborative supporters of IPBES (see next section);

(iii) Task forces will be established for:

a. Capacity building;

b. Policy support tools and methodologies;

c. Knowledge and data;

d. Indigenous and local knowledge;

e. Scenarios and models of biodiversity and ecosystem services.

C. Engagement with Governments and partners

13. IPBES will continue to engage with:

a. Governments, in particular by convening meetings of IPBES national focal points to reflect on particular aspects of the implementation of the work programme, or on the uptake of assessment reports or other products of IPBES;

b. The four UN agencies (the United Nations Environment Programme, the United Nations Development Programme, the United Nations Educational, Scientific and Cultural Organization, and the Food and Agriculture Organization of the United Nations), in the context of the collaborative partnership agreement established between the IPBES Plenary and these agancies[16];

c. The Convention on Biological Diversity, the Convention on Migratory Species of Wild Animals, the Ramsar Convention on Wetlands, the Convention on International Trade in Endangered Species of Wild Fauna and Flora, and the UN Convention to Combat Desertification, in the context of the memoranda of understanding between the IPBES secretariat and the secretariats of these agreements, and with the Intergovernmental Panel on Climate Change;

d. A limited number of strategic partners, including in the context of agreements established during the first work programme, which could be renewed (please see document IPBES/7/INF/15), as well as new agreements which might be concluded;

e. A larger set of collaborative supporters, who will contribute, through their own work, to the overall objectives of IPBES, according to a mechanism set out in the document on modalities (IPBES/7/6/Add.2).

D. Additional institutional arrangements needed for the next work programme

14. Technical support for the implementation of the next work programme will be provided by the secretariat, which will be complemented, for some of the deliverables, by a technical support unit, as set out in document IPBES/7/6/Add. 2. IPBES will follow a process similar to that used during the first work programme, and launch calls for in-kind support from Governments and other stakeholders for the establishment of these units. These units would be selected by the Bureau, and work under the authority of the Executive Secretary.

[16] Decision IPBES-2/8.

III. Work programme budget

15. The IPBES work programme up to 2030 will continue to rely on four distinct categories of resources:
    a. Cash contributions to the IPBES trust fund;
    b. In-kind contributions covering elements otherwise charged to the trust fund, as well as other activities in support of the work programme;
    c. Time provided pro bono by selected experts; and
    d. Catalysing of activities that contribute to the IPBES objectives.

16. The budget will continue to be structured according to the following categories:
    a. Meetings of the Platform bodies (25% of overall budget);
    b. Work programme (about 50% of overall cost);
    c. Secretariat (about 25% of overall cost);

17. The estimated cost for the IPBES work programme up to 2030 will be included in the document considered by Plenary.
    a. the IPBES trust fund, over the period 2013–2017, received an average of $5.7 million per year thanks to a single major donation in 2013. The trust fund, over the past three years, from 2015 to 2017, has received an average of $3.6 million per year. With recent developments, including the expected regular contribution from the European Union, a conservative estimate is that **IPBES could expect a regular annual income of around $5 million per year**. This amount could increase during the next work programme if fund raising efforts are successful;
    b. IPBES has also received in-kind contributions of between $5 million and $6 million per year on average, covering costs that would otherwise have had to be supported by the trust fund, such as for the provision of technical support units or support to meetings. This amount of in-kind support would be expected to be maintained or even increased during the next work programme;
    c. IPBES has further received in-kind contributions from all the experts involved in IPBES, contributing on average between 10 and 20 per cent of their time on a pro bono basis, which amounts to an estimated additional in-kind contribution of $4.7 million to $9.4 million per year. This amount of in-kind support would be expected to be maintained during the next work programme;
    d. An increasing number of activities contributing to the IPBES objectives but not forming part of the approved work programme and budget have been catalysed, such as capacity-building with funds from the German International Climate Initiative of $10 million over the period 2016–2017, or a recent call for research on scenarios and models for biodiversity and ecosystem services launched by the European Union-funded BiodivERsA network and the Belmont Forum, with a budget of some $23.5 million, to address the research priorities highlighted in the IPBES assessment on scenarios and models. The number and the overall amount of catalysed activities contributing to the IPBES objectives is expected to increase during the next work programme;

18. **The annual estimated cost of IPBES for the period up to 2030 would be between $6.5 and $8.5 million**. The cost estimate for implementing the work programme for the period 2019–2029, by deliverable, is set out in document IPBES/7/6/Add.2. The priorities in the work programme will be established by the Plenary in the decisions that it adopts on the budget and on the initiation and scoping of deliverables. **Additional contributions will need to be identified in order to implement this IPBES work programme up to 2030**.

Annex

NB: This annex contains short descriptions for the proposed deliverables. They will be further fleshed out in the Plenary document, following the review by Governments, and complemented by the documents mentioned in the introduction.

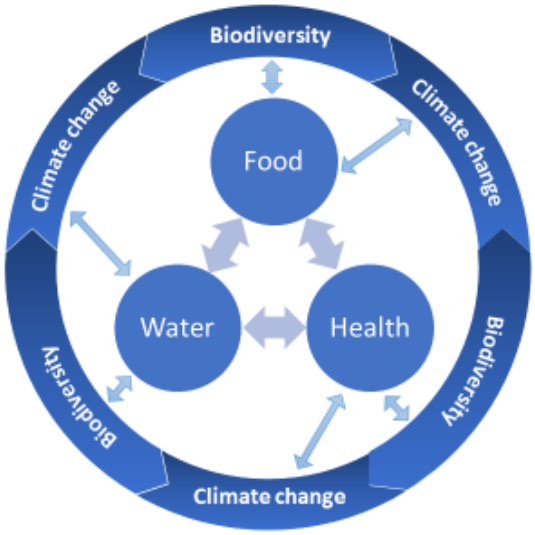
a- **Deliverable A1:**

A thematic assessment on the conservation and sustainable use of life on land (SDG 15) and below water (SDG 14) while addressing ending hunger (SDG 2), clean water (SDG 3), good health and well-being for people (SDG 6), and climate action (SDG 13), referred to in short as "nexus assessment"

This assessment of the interactions between and among (i.e., the nexus) biodiversity and ecosystem services, climate, agriculture/fisheries/aquaculture/food, water, human health and nutrition was suggested by the CBD, Norway, the European Union, and UNESCO. Several other countries suggested nexus assessments that are incorporated into the one suggested, e.g., biodiversity and climate change (Brazil, France, China, Norway and UNEP); biodiversity and health (Belgium, Finland, France, Bioversity International (CGIAR), EAT Foundation, and NEOH); biodiversity and food systems (France, Norway, Bioversity International (CGIAR) and the EAT Foundation). Japan suggested a nexus of food, water, health and energy, in the context of the next global assessment, which could be addressed as a nexus assessment. The assessment will also address other issues suggested by Governments, such as pathways to transformational change, people and quality of life.

The loss of biodiversity and ecosystem services and human-induced climate change are inseparable issues, and each in turn impact on our ability to produce nutritious food, supply clean water, and sustain healthy lives for all. In turn, the way we produce our food (extensification and intensification of agricultural systems) and manage our water are currently causing the loss of biodiversity and ecosystem services (and the loss of some traditional knowledge related to their use), and increasing the emissions of greenhouse gases into the atmosphere, which contribute to human-induced climate change. In addition, the issues of food, water and human health are all inter-linked. Current agricultural systems impact on the quality of water, which in turn effects human health, and our choice of food products impacts on human health. Figure 1, is a simplistic illustration of how these issues interact.

Figure 1: The nexus between biodiversity, climate change, food, water and human health.



The challenge is to produce healthy nutritious food from terrestrial, freshwater and marine systems: (i) in a world where the climate is changing and biodiversity is being lost; and (ii) without adversely impacting on

biodiversity, water quality or contributing to human-induced climate change. The assessment will focus on assessing:

- How projected changes in climate impact on biodiversity and ecosystem services and how projected changes (predominantly losses) of biodiversity and ecosystem services affect the Earth's climate;
- How proposed land-management climate mitigation strategies (e.g., large-scale afforestation and reforestation, and large-scale bio-energy with carbon capture and storage) could affect biodiversity;
- How projected changes in climate and biodiversity impact on agricultural production, water resources and human health;
- How future agricultural terrestrial, freshwater and marine systems can sustainably produce the food we need, and support good human health, without contributing to human-induced climate change, loss of biodiversity, and pollution of freshwater and coastal ecosystems;
- The impact of dietary choices on agricultural systems and consequent implications forbiodiversity and climate change.

The proposed assessment will focus on producing the information needed to simultaneously achieve multiple policy objectives enshrined in the UN SDGs, the Paris Climate Agreement, and the post-2020 Biodiversity Framework. The proposed assessment will focus on the transformative changes needed in governance systems and cross-sectoral policies, technologies and behavior change, identifying synergies and trade-offs at multiple spatial scales. It will examine the challenges and opportunities for different stakeholders, i.e., governments, private sector, academics, non-governmental organizations and the public. It will examine transboundary issues such as the influence of trade.

While the proposed assessment will be global in scope it will assess regional differences and similarities.

The proposed assessment will provide scientific evidence directly relevant to simultaneously achieving multiple SDGs, i.e., SDG 2 (ending hunger, i.e., issues of food security), SDG 6 (clean water, i.e. issues of water security), SDG 3 (good health and well-being, i.e., issues such as the direct health effects of biodiversity loss, climate change, polluted water, and diet), SDG 13 (climate action, i.e., issues such as mitigation and adaptation through land management activities), SDG 14 (life below water), SDG 15 (life on land), and SDG 17 (partnerships for the goals – issues such as polycentric governance and cross-sectoral policies).

The assessment will also contribute to SDG 1 (poverty in its broadest definition), SDG 4 (education, i.e., issues such as awareness building), SDG 5 (gender equality, e.g., issues such as the role of women in farming), SDG 8 (decent work and economic growth – issues such as the implications for livelihoods), SDG 10 (reduced inequalities, i.e., issues such as the distributional implications of climate change, loss of biodiversity, food and water security, and access to health infrastructure), SDG 12 (sustainable consumption and production, i.e., issues such as sustainable agriculture and food waste), and SDG 16 (peace, justice and strong institutions – issues such as the implications of lack of access to food and clean water on local and regional peace).

The proposed assessment will build on and complement previous and ongoing IPBES (pollination, regional, land degradation and restoration, and global), IPCC (AR-5, 1.5ºC, Climate Change and Land) and other international assessments (e.g., FAO assessment related to food and biodiversity, and the IAASTD). Therefore, the detailed scoping would assess what has and is being assessed in order for the proposed assessment to be value-added and to identify what issues the Plenary would want the assessment to focus on.

The proposed assessment, while challenging, is deemed feasible by MEP and Bureau. It will produce evidence for simultaneously meeting multiple policy objectives, and assess these as an interacting system. New scenarios will need to be commissioned, similarly to the IPCC commissioning of new scenarios for the 1.5ºC report.

b- **Deliverable B1:**

A thematic assessment on the behavioural, social, cultural, economic, institutional, technical and technological determinants of transformative change, to achieve the 2050 Vision for Biodiversity

This request was made by the Convention on Biological Diversity and UNESCO. The United Kingdom suggested to explore options for developing the evidence base to support transformational change in the way society values, uses and restore ecosystems and natural resources, and manages trade-offs between different demands on the environment, including the nexus of biodiversity, food, energy and health. A methodological assessment of the effectiveness of various policy instruments for understanding how to achieve transformational change was requested by the Convention on Biological Diversity, Japan, the European Union, UNEP and UNESCO.

Behavioural, social, economic, institutional, technical and technological factors correspond, in the IPBES conceptual framework, to the indirect drivers of change in biodiversity. Indirect drivers and their impact on the direct drivers of changes in biodiversity and ecosystem services are often cited as being in need of more attention, which this assessment would bring.

Gaining a better understanding of the elements of transformational change would facilitate the development of policies and improve the effectiveness of actions and policy measures, allowing for example, to assess available knowledge on human motivations for various choices and change.

c- **Deliverable B2:**
A global assessment, with integrated regional and cross-regional components, of biodiversity and ecosystem services

The request to perform a global assessment of biodiversity and ecosystem services, withintegrated regional and cross-regional components, close to 2030 was proposed in the consultation on the draft strategic framework, and, requested by the Convention on Biological Diversity, Japan, Norway, the United Kingdom, the European Union, and UNEP. The global assessment would also address other requests of a global nature including a possible joint request from the Convention on Migratory Species and of the UN Convention to Combat Desertification on migratory connectivity; a focus on freshwater ecosystems as requested by the Ramsar Convention (anticipated), the United States of America, Brazil and South Africa; and a focus on marine systems as requested by France, Norway and the European Union.

This global assessment would consist of a set of chapters, a summary for policymakers, and regional and cross-regional syntheses. It would be scoped over one year, and performed over four years, given the breadth and complexity of the task. A release in 2028 would imply a production of the scoping report in 2023, and of the assessment report (chapters, summary for policymakers) and of the regional syntheses in 2028/29. The scope and exact timing of this assessment would be considered so as to serve the needs of the post 2020 Global Biodiversity Framework and of the 2030 Agenda for Sustainable Development, and in light of the impact of the first global assessment of biodiversity and ecosystem services of IPBES, and of its other assessments and activities.

d- **Deliverable B3:**
A fast track methodological assessment of the criteria, metrics and indicators of the impacts of productive sectors on biodiversity and ecosystem services

This responds to requests by the Convention on Biological Diversity, Japan, the European Union and UNEP. Productive sectors, such a forestry, agriculture and fisheries, tourism, energy and mining, infrastructure, manufacturing and processing, can have a range of positive and negative impacts on biodiversity depending on the actions they undertake. Measuring these impacts would promote consistency in reporting and inform businesses on how they impact biodiversity, and on how they could improve their practices. Assessing the impacts of productive sectors, however, remains challenging because appropriate criteria, metrics and indicators have not been properly synthesised and assessed. The request is directly relevant to the work of the Convention on Biological Diversity, as well as to any organisation including the United Nations, dealing with productive sectors as well as civil society and private sector networks, and to national and global businesses around the world.

e- **Deliverable C1:**
A technical paper on synergies and trade-offs between the need to protect biodiversity and to mitigate and adapt to climate change

As mentioned in section a above, an assessment of biodiversity and climate change was requested by Brazil, France, China, Norway and UNEP. In addition, several submissions asked for enhanced cooperation between IPBES and IPCC. The CBD noted the strong need to further enhance cooperation

between IPBES and IPCC in order to promote coherence between scenarios and related assessments prepared in the context of biodiversity and climate change, including consideration for joint assessment activities. France requested the establishment of an ambitious partnership with IPCC. Norway requested to consider having a joint IPBES-IPCC assessment on biodiversity and climate change. UNEP suggested a rapid assessment of the implications of the 1.5C report. Finally, WWF requested a special IPBES/IPCC report on biodiversity and climate change.

The Multidisciplinary Expert Panel and the Bureau, in light of these requests, and of the urgency to bring biodiversity at the forefront of discussions regarding land-based climate mitigation strategies, are recommending producing a joint IPCC-IPBES technical paper on synergies and tradeoffs between the need to protect biodiversity and to mitigate and adapt to climate change. Such a technical paper would be based on the IPBES global, regional and land degradation and restoration assessments, on one hand, and on the IPCC special report on global warming of 1.5C, and other IPCC reports, on the other hand. A recent workshop on "biodiversity and climate change: integrating science for coherent policy", under the CBD, and the UNFCCC, attended by experts in the fields of biodiversity and climate change mitigation and adaptation, mainly from the IPCC and IPBES communities, started to identifysome of the issues that would need to be addressed in the technical paper (UNEP/CBD/14/INF/22).

f- **Building capacity (deliverables A2, B7, and C2)**:

Work on capacity building will implement activities as set out in the capacity-building rolling plan, welcomed by the Plenary in decision IPBES-5/1, which will be targeted at particular topics and objectives:

a) Learning and engagement:

(i) A fellowship programme, allowing early career researchers and other professionals to engage with the Platform's activities, working alongside more experienced colleagues;

(ii) A training, awareness and empowering programme, aiming at enhancing individual and institutional capacities for supporting the development and use of IPBES deliverables;

(iii) Secondments and internships within the secretariat, to foster shared knowledge and understanding and build experience in managing the science-policy interface.

b) Access to expertise and information:

(i) Building and supporting communities of practice among experts, policymakers, development partners and practitioners based on other IPBES work programme deliverables, in particular in the context of thematic and methodological assessments;

(ii) Providing capacity-building support for the work with indigenous and local knowledge in assessments and other relevant deliverables, and for dialogue among different knowledge systems, in line with the adopted approach for working with indigenous and local knowledge holders and experts;

(iii) Developing the necessary capacities to achieve increased access to data, information and knowledge needed for the implementation of the IPBES work programme and to increase the reach and impact of work programme deliverables;

c) Interfacing science and policy at national and regional level:

(i) Promoting and facilitating the use of IPBES methodologies and conceptual framework in national or sub-regional policies, programmes and assessments;

(ii) Encouraging the development of national and regional platforms and networks on biodiversity and ecosystem services;

(iii) Developing stronger ties with scientific research institutions and associations working in the field of biodiversity and ecosystem services to make IPBES better known in the scientific community and increase its involvement in IPBES**.**

g- **Mobilising knowledge (deliverables A3, B8, C3):** Work will **i**mplementat the following activities:

a) Identifying, prioritizing and helping to mobilize existing knowledge and data needed for IPBES work, and in particular for assessments;

b) Identifying gaps in knowledge and data in IPBES assessments and prioritizing them according to needs of policymakers at appropriate scales;

c) Catalysing efforts to generate new knowledge and data, on gaps identified in IPBES assessments, and possibly other deliverables, by engaging in dialogue with key organizations, policymakers and funding organizations.

h- **Supporting policy formulation and implementation (deliverables A4, B9, C4):** Implementation of the following activities:

a) Providing advice to expert groups performing assessments, in particular on methodological assessments related to policy development and implementation support;

b) Overseeing the development of content for the IPBES policy support web portal (previously called the catalogue of policy support tools) and use of the web portal, ensuring that policy instruments and support tools identified in IPBES assessments are featured on the web portal and accessible to and usable by decision makers;

c) Promoting and catalysing the further development of policy instruments,support tools and good practices to fill gaps identified in IPBES assessments.

i- **Implementing the IPBES approach to recognizing and working with indigenous and local knowledge[17] (A5, B10, C5)** through the activities summarised as follows:

a) Assessments: Implement the four phase approach, consisting of: (i) collaboratively defining the problems and goals during the scoping of an assessment; (ii) synthesizing and incorporating into the assessment a wide array of evidence and data from multiple sources of indigenous and local knowledge related to the assessment; (iii) appropriately and effectively engaging indigenous peoples and local communities in the review of the various drafts of an assessment; and (iv) sharing knowledge and insights gained through the assessment with indigenous peoples and local communities once the assessment is completed;

b) Knowledge and data: Identifying ILK experts and experts on ILK; facilitating, via the IPBES web-based infrastructure, access and management of available sources related to indigenous and local knowledge; promoting and catalysing the mobilization of indigenous and local knowledge; taking into account appropriately those aspects relevant to indigenous and local knowledge and indigenous peoples and local communities in the work performed on knowledge and data (e.g. list of indicators, classifications of units of analysis);

c) Policy support tools and methodologies: Identify, describe and facilitate the use of relevant tools,methods and guidelines for implementing the four phases of the proposed approach summarized in Para i) above, and promote and catalyze their further development; ensure that tools and methodologies relevant to indigenous and local knowledge and indigenous peoples and local communities are reflected in IPBES assessments;

d) Capacity-building: Identify, prioritize and build capacity of biodiversity related institutions and individuals critical to the implementation of the approach (e.g. training workshops and webinars on the approaches); and promote collaboration and partnerships where such needs go beyond those of IPBES;

e) Participatory mechanism: Continuously improve andimplement the mechanism according to the activities set out in the approach, including by providing and facilitating a web-based platform to ensure meaningful engagement of existing networks of indigenous peoples and local communities and relevant experts and allowing new networks to develop and engage; Promoting a meaningful dialogue with various networks, relevant experts and policymakers to mobilize inputs and disseminate results during all four phases of the assessment process; Creating opportunities for shared learning and knowledge and information exchange through dedicated discussion forums; Engaging in partnerships, to promote and implement the approach.

[17] Decision IPBES-5/1, annex II.

j- **Advancing work on scenarios and models for biodiversity and ecosystem services (deliverables A6, B11, C6)**: Continuation of the work set out in the terms of reference for the further development of tools and methodologies regarding scenarios and models (decision IPBES-4/1, annex V):

a) Providing expert advice on the use of existing models and scenarios to address the current needs of Platform;

b) Catalysing the development of scenarios and associated models by the broader scientific community.

k- **Strengthening the diverse conceptualization of multiple values of nature and its benefits, including biodiversity and ecosystem functions and services (deliverables A7, B12, C7)**: Provision of methodological guidance on values to ongoing assessments and other deliverables as necessary. This role will be performed at first by the expert group established to produce the assessment on values through deliverable B6. The Plenary may decide, when the assessment on values is finished, to establish a dedicated task force to perform this work.

l- **Communicating and involving all stakeholders (deliverables A8, B13, C8)**: Continuation of the work to implement the IPBES communication and outreach strategy[18] and the IPBES stakeholder engagement strategy,[19] through activities on communication, outreach and stakeholder engagement, to increase the visibility of IPBES, and the uptake of its products by Governments and a diversity of other stakeholders.

[18] Decision IPBES-3/4, annex I.

[19] Decision IPBES-3/4, annex II.