

Decision IPBES-3/1: Work programme for the period 2014–2018

The Plenary,

Welcoming the report of the Executive Secretary on the implementation of the work programme for 2014–2018,¹ which includes lessons learned and options for the further implementation of the work programme,

Decides to proceed with the implementation of the work programme in accordance with the modalities set out below, the timetable in figure 1 and the approved budget set out in decision IPBES-3/2;

I

Capacity-building

Welcoming the establishment of a task force on capacity-building for the period 2014–2018 for the implementation of deliverables 1 (a) and 1 (b) of the work programme,

1. *Approves* the list of priority capacity-building needs of the Platform set out in annex I to the present decision and requests the task force on capacity-building and its technical support unit to work with all relevant subsidiary bodies under the Platform in ensuring that these needs are fully addressed and that progress in meeting them is kept under review and reported to the Plenary on a regular basis;

2. *Takes note* of the draft programme on fellowship, exchange and training² and requests that the task force on capacity-building and its technical support unit complete the pilot implementation of the draft programme, report on progress with the pilot implementation and make recommendations for the further development and implementation of the programme to the Plenary at its fourth session;

3. *Also takes note* of the preliminary plans for convening, in 2015, the first capacity-building forum of the Platform with representatives of conventional and potential sources of funding and requests the Bureau, with the support of the secretariat, and the task force on capacity-building and its technical support unit, to convene the forum during the second half of 2015 on the basis of a call for expressions of interest to take part in the forum and requests a report on the outcome of the forum to the Plenary at its fourth session;

II

Knowledge foundations

Welcoming the establishment of a task force on indigenous and local knowledge systems to implement deliverable 1 (c) of the work programme and of the task force on knowledge and data to implement deliverables 1 (d) and 4 (b) of the work programme,

1. *Notes* the progress made in the development, for consideration by the Plenary at its fourth session, of draft procedures for and approaches to working with indigenous and local knowledge³ as informed by, inter alia, the pilot global dialogue on indigenous and local knowledge for the assessment of pollination and pollinators associated with food production and the way it might be used in all assessments;

2. *Decides* to continue to pilot the preliminary guide on indigenous and local knowledge approaches and procedures in the thematic assessments and in the four regional assessments (the Americas, Africa, Asia and the Pacific, and Europe and Central Asia);

3. *Notes* the progress made in the establishment of a roster of experts and a participatory mechanism for working with indigenous and local knowledge systems;⁴

4. *Approves* the data and information management plan set out in annex II;

¹ IPBES/3/2.

² See IPBES/3/3.

³ See IPBES/3/INF/2.

⁴ See IPBES/3/INF/3.

5. *Requests* the Secretariat to submit to the Plenary for information, data and information management plans for each ongoing assessment and to develop data and information management plans in the context of any scoping process or report;

6. *Notes* the progress made by the task force on knowledge and data in the development of a knowledge and data strategy⁵ and requests that information about the strategy be reported to the Plenary at its fourth session;

III

Global, regional and subregional assessments

1. *Notes* the development of a draft guide to the production and integration of assessments from and across all levels⁶ and requests that the guide be completed as provided in decision IPBES-2/5 with a view to its becoming a living document that would be regularly reviewed and updated as necessary, building on lessons learned and best practices from the implementation of the work programme of the Platform;

2. *Approves* the undertaking of regional and subregional assessments in accordance with the procedures for the preparation of the Platform's deliverables set out in the annex to decision IPBES-2/3 and the generic scoping report for the regional and subregional assessments of biodiversity and ecosystem services set out in annex III to the present decision, for consideration by the Plenary at its sixth session, as follows:

(a) Regional and subregional assessment for Africa as outlined in the scoping report set out in annex IV to the present decision;

(b) Regional and subregional assessment for the Americas as outlined in the scoping report set out in annex V to the present decision;

(c) Regional and subregional assessment for Asia and the Pacific as outlined in the scoping report set out in annex VI to the present decision;

(d) Regional and subregional assessment for Europe and Central Asia as outlined in the scoping report set out in annex VII to the present decision;

3. *Agrees* to consider at its fourth session the option of undertaking a regional assessment for the Open Ocean region;

4. *Approves* a scoping process for a global assessment of biodiversity and ecosystem services, for consideration by the Plenary at its fourth session, in accordance with the procedures for the preparation of Platform deliverables as set out in the note by the secretariat on the initial scoping report for a global assessment on biodiversity and ecosystem services,⁷ which will largely but not exclusively rely on the compilation and synthesis of current data, knowledge and information from thematic, regional and methodological assessments;

5. *Requests* the Multidisciplinary Expert Panel, in consultation with the Bureau, to develop a coordinated approach among the approved processes for the regional and subregional assessments, the thematic assessments and a global assessment, as resources permit, with a view to ensuring consistency while maintaining the quality of each of the assessments;

IV

Thematic assessments

1. *Notes* the progress made in the ongoing assessments of pollination and pollinators associated with food production;⁸

2. *Approves* the undertaking of a thematic assessment on land degradation and restoration in accordance with the procedures for the preparation of Platform deliverables, as

⁵ Ibid.

⁶ See IPBES/3/INF/4.

⁷ See IPBES/3/9.

⁸ See IPBES/3/INF/5.

outlined in the scoping document set out in annex VIII to the present decision, for consideration by the Plenary at its sixth session;

3. *Also approves* the initiation of scoping, primarily using virtual approaches, for a thematic assessment of invasive alien species, for consideration by the Plenary at its fourth session;

4. *Further approves* the initiation of scoping, primarily using virtual approaches, for a thematic assessment of sustainable use of biodiversity, for consideration by the Plenary at its fourth session;

V

Methodological assessments

1. *Notes* the progress made in the ongoing assessments of scenarios analysis and modelling of biodiversity and ecosystem services;⁹

2. *Approves*, until the fourth session of the Plenary, the continuation of the expert group established for the development of the preliminary guide on the conceptualization of values of biodiversity and nature's benefits to people,¹⁰ which, at the discretion of the Chair, following consultations with the Bureau, could be expanded to include a limited number of resource persons and representatives of strategic partners as resources permit;

3. *Requests* the expert group to revise the preliminary guide following an open review by Governments and stakeholders, to revise the report on scoping for the methodological assessment regarding diverse conceptualization of multiple values of nature and its benefits, including biodiversity and ecosystem functions and services,¹¹ based on comments received following an open review by Governments and stakeholders, for consideration by the Plenary at its fourth session, and to work in a mutually supportive way with the task force on indigenous and local knowledge systems and other expert groups and task forces established with regard to relevant deliverables, including ongoing assessments and the work on the catalogue of policy support tools and methodologies;

VI

Catalogue of assessments

Takes note of the report on the status of the catalogue of assessments¹² and requests the Executive Secretary to continue to maintain the online catalogue of assessments, to collaborate further with existing networks and initiatives to enhance further the online catalogue and to undertake another review of the assessment landscape and lessons learned in time to inform the review of the Platform called for in deliverable 4 (e);

VII

Catalogue of policy tools and methodologies

1. *Notes* the development of a proposed catalogue of policy support tools and methodologies and the guidance for its use,¹³ as well as the development of preliminary guidance on how the further development of such tools and methodologies could be promoted and catalysed in the context of the Platform;

2. *Requests* the Executive Secretary, in consultation with the Multidisciplinary Expert Panel and the Bureau, to submit the proposed catalogue and the preliminary guidance on policy support tools and methodologies in the context of the Platform for review by Platform members, observers and stakeholders and to undertake work to establish the catalogue;

3. *Requests* the Multidisciplinary Expert Panel and the Bureau to further develop, as set out in decision IPBES-2/5, guidance for consideration by the Plenary at its fourth session

⁹ See IPBES/3/INF/6.

¹⁰ See IPBES/3/INF/7.

¹¹ See IPBES/3/8.

¹² See IPBES/3/INF/20.

¹³ See IPBES/3/5.

on how policy support tools and methodologies could be promoted and catalysed in the context of the Platform;

4. *Approves* the continuation of the expert group to support the review and to complete its current work on the catalogue and preliminary guide;

VIII

Technical support for the work programme

1. *Welcomes* the offers of in-kind contributions to support the implementation of the work programme that had been received as at 17 January 2015, listed in annex II to decision IPBES-3/2, and invites the submission, by 31 January 2015, of additional offers of in-kind contributions to support the implementation of the work programme;

2. *Requests* the secretariat, in consultation with the Bureau and in accordance with the approved budget set out in the annex to decision IPBES-3/2, to establish the institutional arrangements necessary to operationalize technical support.

Timetable for the work programme 2014–2018

Year	2014				2015				2016				2017				2018				2019						
	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter			
Deliverable					IPBES 3 12–17 Jan				IPBES 4 (8 - 14 Feb) (tbc)				IPBES 5 (6 - 12 Mar) (tbc)				IPBES 6 (9 - 15 Apr) (tbc)					IPBES 7 (13 - 19 May) (tbc)					
1 (a) and 1 (b)	Task force on capacity-building																										
1 (e)	Task force on indigenous and local knowledge systems																										
1 (d) and 4 (b)	Task force on knowledge and data																										
2 (a)	Assessment guide																										
2 (b)		Scoping	Regional/subregional assessments of biodiversity and ecosystem services																								
2 (c)			Scoping	Global assessment of biodiversity and ecosystem services																							
3 (a)	Thematic assessment of pollination																										
3 (b) (i)		Scoping	Thematic assessment of land degradation and restoration																								
3 (b) (ii)			Scoping	Thematic assessment of invasive alien species																							
3 (b) (iii)			Scoping	Thematic assessment of sustainable use of biodiversity																							

3 (c)	Methodological assessment of scenario analysis and modelling		Further development of tools and methods for scenario analysis and modelling	
3 (d)	Scoping and guide review		Methodological assessment of diverse conceptualization of values	Further development of tools and methods on conceptualization of values
4 (a)	Catalogue of assessments			
4 (c)	Catalogue of policy support tools and methodologies			
4 (d)	Communication and stakeholder engagement			
4 (e)			Evaluation	Evaluation

Annex I

Revised list of priority capacity-building needs (deliverables 1 (a) and 1 (b))

1. The Platform prioritizes in accordance with its functions and key capacity-building needs to improve the science-policy interface at appropriate levels and then provides and calls for financial and other support for those needs of highest priority that are related directly to its activities, as decided by the Plenary. The work programme 2014–2018 sets out to ensure that priority capacity-building needs relevant to the implementation of the Platform work programme are matched with resources through catalysing financial and in-kind support.
2. The highest priority capacity-building needs are those that fulfil the following criteria:
 - (a) They can be addressed through activities that are integrated into deliverables of the Platform work programme (resourced through the Platform trust fund, in-kind contributions, the capacity-building forum and the matchmaking facility);
 - or:
 - (b) They can be addressed through activities that enable the implementation of the Platform work programme (resourced through the capacity-building forum and the matchmaking facility);
 - and in both cases:
 - (c) They are driven by demands expressed and promote the sustainability of capacity-building over time, including by building on existing initiatives and institutions;
 - (d) They stimulate awareness of and engagement with the Platform and support the implementation of and interlinkages among multilateral environmental agreements.
3. The Platform acknowledges with appreciation the expressions of capacity-building needs received through submissions and consultations. The expressions are summarized and categorized in the table below. The table also suggests how such needs can be matched with resources.
4. Drawing on the expressions of capacity-building needs identified in the table, the following initial priority needs are proposed, together with the most appropriate approach to identifying sources of support:
 - (a) Focus on the ability to participate in Platform deliverables, primarily addressed through the proposed fellowship, exchange and training programme, with the priority placed on Platform regional assessments. This would be resourced through the Platform trust fund and in-kind contributions. The extent and reach of this programme will be increased over time by facilitating the mobilization of resources through the capacity-building forum and the piloting of a prototype matchmaking facility;
 - (b) Focus on enhancing the capacity to undertake, use and improve national assessments of biodiversity and ecosystem services, by facilitating the development and implementation of proposals based on expressions of interest, and develop the capacity for the use of assessment findings in policy development and decision-making. Facilitation will be resourced through the Platform trust fund and in-kind contributions, while support for the development and implementation of national project proposals will be sought through the capacity-building forum and the piloting of a prototype matchmaking facility;
 - (c) Focus on the development and implementation of pilot or demonstration projects addressing other categories of needs, by facilitating the development and implementation of proposals based on expressions of interest. Facilitation will be resourced through the Platform trust fund and in-kind contributions, while support for the development and the implementation of national project proposals will be sought through the capacity-building forum and piloting of the matchmaking facility;
 - (d) Also, the Platform acknowledges the specific capacity-building needs related to the development and the strengthening of the participatory mechanism and indigenous and local knowledge approaches and procedures through the Platform trust fund and in-kind contributions.

Capacity-building needs identified by members and other stakeholders and potential sources of support for addressing their needs

<i>Capacity need categories</i>	<i>Needs identified by Governments and other stakeholders</i>	<i>Potential source of support</i>		
		<i>Trust fund</i>	<i>Matchmaking facility</i>	<i>Notes</i>
1. Enhance the capacity to participate effectively in implementing the Platform work programme	1.1 Develop the capacity for effective participation in the Platform regional and global assessments	✓	✓	Priority for the Platform trust fund, largely delivered through the fellowship, exchange and training programme Supplemented through the Platform matchmaking facility
	1.2 Develop the capacity for effective participation in the Platform thematic assessments	✓	✓	
	1.3 Develop the capacity for effective participation in the Platform methodological assessments and for the development of policy support tools and methodologies	✓	✓	
	1.4 Develop the capacity for monitoring national and regional participation in the implementation of the Platform work programme, and responding to deficiencies identified	✓		
2. Develop the capacity to carry out and use national and regional assessments	2.1 Develop the capacity to carry out assessments, including on different initiatives, methodologies and approaches	✓	✓	Priority for the Platform matchmaking facility
	2.2 Develop the capacity among policymakers and practitioners for the use of assessment findings in policy development and decision-making	✓	✓	
	2.3 Develop the capacity to develop and use non-market-based methods of valuing biodiversity and ecosystem services	✓	✓	
	2.4 Develop the capacity to assess specific priority habitats and ecosystems, including ecosystems that cross ecological and political boundaries	✓	✓	
	2.5 Develop the capacity to develop and effectively use indicators in assessments		✓	
	2.6 Develop the capacity to value and assess management options and effectiveness	✓	✓	
	2.7 Develop the capacity to retrieve and use all relevant data, information and knowledge	✓	✓	
	2.8 Develop the capacity to introduce different worldviews and indigenous and local knowledge systems into the different assessments		✓	

<i>Capacity need categories</i>	<i>Needs identified by Governments and other stakeholders</i>	<i>Potential source of support</i>		
		<i>Trust fund</i>	<i>Matchmaking facility</i>	<i>Notes</i>
3. Develop the capacity to locate and mobilize financial and technical resources	3.1 Develop the institutional capacity to locate and mobilize financial and technical resources	✓	✓	Pilot project(s) through the Platform matchmaking facility
	3.2 Develop the capacity for clearly communicating capacity-building needs to potential providers of financial and technical support		✓	
	3.3 Develop the capacity to identify current investments as well as the gap between identified needs and available resources for the effective strengthening of the science-policy interface on biodiversity and ecosystem services		✓	
	3.4 Develop the capacity to mobilize the institutional and technical resources to manage data and knowledge for the effective monitoring of biodiversity and ecosystem services	(✓)		
4. Improve the capacity for access to data, information and knowledge (including the experience of others)	4.1 Develop the capacity for improved access to data, information and knowledge, including its capture, generation, management and use (including indigenous and local knowledge and knowledge from participatory science, social networks and large volumes of data)	(✓)	✓	Pilot project(s) through the Platform matchmaking facility
	4.2 Develop the capacity to gain access to data, information and knowledge managed by internationally active organizations and publishers		✓	
	4.3 Develop the capacity for enhancing collaboration among research institutions and policymakers at the national and regional levels, in particular for encouraging multidisciplinary and cross-sectoral approaches	✓	✓	
	4.4 Develop the capacity for the conversion of scientific and social assessments of biodiversity and ecosystem services into a format easily understood by policymakers	✓	✓	
	4.5 Develop the effective capacity to promote an interscientific dialogue between different world views, modern science and indigenous and local knowledge systems, including by facilitating the effective engagement of indigenous and local communities, scientists and policymakers	✓	✓	
	4.6 Develop the capacity to gain access to and use technologies and networks that support biodiversity taxonomy, monitoring and research		✓	

<i>Capacity need categories</i>	<i>Needs identified by Governments and other stakeholders</i>	<i>Potential source of support</i>		
		<i>Trust fund</i>	<i>Matchmaking facility</i>	<i>Notes</i>
5. Develop the capacity for enhanced and meaningful multi-stakeholder engagement	5.1 Develop the capacity for effective engagement of stakeholders in assessment and other related activities at the national level, including for understanding who the stakeholders are and how they should be engaged		✓	Pilot project(s) through the Platform matchmaking facility
	5.2 Develop the capacity for effective communication of why biodiversity and ecosystem services are important and why their many values should be used in decision-making	✓	✓	
	5.3 Develop the capacity to effectively use the Platform's deliverables in implementing national obligations under biodiversity-related multilateral environmental agreements	✓	✓	
	5.4 Develop the capacity to strengthen different networks of actors, including those of indigenous and local peoples, for strengthening the sharing of information among different knowledge systems		✓	

Annex II

Data and information management plan (deliverables 1 (d) and 4 (b))

I. Context

1. In order to strengthen the foundations of the science-policy interface, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services agreed on a work programme for the period 2014–2018. This work programme includes deliverable 1 (d), which aims to ensure that priority knowledge, information and data needs for policymaking are met by catalysing efforts to generate new knowledge and by networking, and deliverable 4 (b), which aims to develop a data and information management plan. The task force on knowledge and data established by the Plenary is responsible for both of these deliverables. Key functions of the task force include the mandate to identify and prioritize key scientific knowledge needed for policymakers at appropriate scales; to facilitate access to requisite knowledge, information and data and to provide guidance on the management thereof; and to catalyse efforts to generate new knowledge in dialogue with scientific organizations, policymakers and funding organizations.

2. The draft data and information management plan was prepared by the secretariat, working with the Bureau and the task force.

3. The primary motivation for the Plenary's request for a data and information management plan (see decision IPBES-2/5, annex III) is to ensure access, in the future, both to the Platform's outputs and to the knowledge, information and data needed for their realization. This is important in respect of both the transparency and the replicability of findings and is therefore a key issue for the credibility of the Platform. Moreover, it is normal practice in the process of producing peer-reviewed publications for the knowledge, information and data on which analyses and findings are based to be disclosed and traceable.

4. The development of the plan will support long-term secure access to the knowledge, information and data gathered through activities of the Platform. The task force, supported by the technical support unit, will implement the plan, building on current international initiatives and reflecting the approach of strategic partnerships or other mechanisms pursued by the Plenary.

5. The plan is being developed by the task force as part of a broader knowledge, information and data strategy (see IPBES/3/INF/3) that aims to guide the work of the task force over the years of its existence, providing a context for other deliverables involving knowledge, information and data while also serving as a source document for other outputs of the task force.

6. The Platform intends to draw rigorously on existing knowledge and catalyse the development of new knowledge from diverse sources of quality-assured data and information. Consequently, it will need to support partners and/or put in place processes and structures to safeguard and improve the quality of data in compliance with various policy objectives; to ensure data longevity; to build partnerships with service contributors and custodians of data and information; and to foster consistency across the deliverables of the Platform and their sharing through supporting community-wide development of standards and guidelines. These processes and structures must be able to accommodate and integrate diverse disciplines and knowledge systems and provide for processes for the review of data.

7. These processes must interact strongly with other activities of the Platform, including the other task forces and assessments. The task force on indigenous and local knowledge systems is developing procedures for and approaches to working with indigenous and local knowledge holders. The task force on capacity-building will drive a wide range of capacity-building activities, including measures to improve access to existing knowledge, information and data. A close working relationship between the three task forces will be established to facilitate full access to the knowledge that will be needed for activities and deliverables related to the Platform. All three task forces will collaborate in the design of methodological guidelines, in the development of indicators and metrics and in the planning and convening of science-policy dialogues for consistent use across the Platform.

8. It is envisaged that the task force on knowledge and data will give advice during the scoping and delivery of the Platform assessments. During the scoping process, the task force will provide advice on data quality by ensuring the rigorous identification of relevant knowledge, information and data. It will ensure that full consideration is given to the identification and use, where appropriate, of common methodologies, measures and indicators, used consistently within and across assessments to ensure data comparability. During the preparation and delivery of an assessment, the task force will provide support with regard to access to and the management and quality control of knowledge, information and data. The task force will also provide support in relaying information on gaps in scientific knowledge and data identified during the assessments to relevant partners and catalyse the process of filling those gaps. In addition, the task force has the mandate to identify key data and information management priorities for policymakers and to facilitate access to the knowledge, information and data needed in decision-making. Accordingly, the task force will support the Platform's work on policy support tools and methodologies by developing and providing data and information management guidelines for assessments and by identifying data and information management gaps.

II. Objectives of the data and information management plan

9. The existing landscape of data, information and knowledge services relevant for the Platform is diverse and evolving, and it lacks coordination. Current sources of data needed by the Platform will be critically reviewed and categorized by the task force in partnership with others during 2015 in order to support delivery of the scheduled assessments and policy support tools and methodologies and provide for long-term access to the data and information used in assessments.

10. The aim of the plan in the first instance is to ensure that the knowledge foundations of the Platform are in place in 2015. To achieve this, the task force has identified the following operational objectives, to be achieved through a set of urgent, high-priority activities (see sect. IV below), as follows:

(a) Establishment of standards and guidelines for managing information and data and identification of possible indicators and metrics to be used in the Platform's products;

(b) Enabling of access to the data, information and knowledge needed in delivering scheduled assessments and using identified policy support tools and methodologies through a sustainable data and information platform;

(c) Identification of means of systematically identifying and addressing the data and information gaps and needs of the Platform;

(d) Formation of close collaboration with relevant international initiatives to support the Platform in implementing the plan.

11. As the Platform's needs develop, along with the proposed strategy for knowledge, information and data, which will survey and formulate broader needs in this area across the Platform, the plan will be revised and updated regularly by the task force.

III. Principles for managing knowledge, information and data in the Platform

12. The following principles build on and expand the Platform's operating principles in the context of knowledge, information and data and will guide implementation of the plan:

(a) *Quality and security.* Developers and users of the Platform's deliverables must be able to rely on the quality of the knowledge on which they are based and the lifespan and integrity of data. Accordingly, the plan will build processes that help, first, to provide access to the best knowledge available for different policy objectives; second, to ensure the long-term security and back-up of data; third, to provide transparency (regarding source, process, provenance and traceability) for data and information and for the Platform's indicators and other knowledge outputs; fourth, to promulgate standards for metadata and possibly other descriptive information; and, fifth, to help ensure consistency and the standardization or appropriate interpretation of data and information collected at multiple scales and often through different methodologies and sampling efforts;

(b) *Building knowledge through partnerships.* The custodians of data and knowledge essential to the Platform's work programme are many and diverse, and the programme can only be delivered through collaboration. Consequently, the plan will, first, enhance delivery across the whole Platform by interacting with and supporting other deliverables; second, avoid duplication by maintaining productive relationships with relevant players; third, recognize the needs and interests of custodians of data and knowledge, such as access rights and intellectual property rights, in particular

the need to respect information provided by and the knowledge of indigenous peoples and local communities, which includes, as appropriate, consideration of seeking prior informed consent or approval and the involvement of indigenous peoples and local communities, who are holders of such information and knowledge, and the sharing of benefits accrued from such information and knowledge; and, fourth, devise schemes to provide incentives for data-sharing and publication;

(c) *Accessibility.* Free and open access to its deliverables and to the material on which they are based is a core value of the Platform. Consequently, the plan will, first, aim for open, permanent access to data and information sources for its deliverables (e.g., in the scientific literature) with minimal restrictions; second, enforce the use of common and accessible file formats in the Platform's deliverables; third, emphasize the need to communicate the availability of data and information; and, fourth, facilitate multilingual discovery and sharing of data and information. The Platform acknowledges that making data and information available online may not always mean it is accessible to member States with limited Internet infrastructure or speed. Therefore, making data and information available in other formats will be crucial for ensuring true accessibility of the data and information produced by the Platform;

(d) *Diverse disciplines and knowledge systems.* Many sources of data, information and knowledge will be critical to the delivery of the Platform's work programme, including natural and social scientific disciplines, along with different types of knowledge such as indigenous and local knowledge systems. For that reason, the plan will foster, first, multidisciplinary; second, knowledge management systems that are inclusive and seek to get the best out of diverse forms of knowledge; third, joint creation of knowledge by both researchers and research users; fourth, equity and balanced regional representation; and, fifth, close collaboration with the task forces on indigenous and local knowledge systems and capacity-building;

(e) *Open science.* The open science approach promotes the generation of knowledge through collaboration based on free and open access to knowledge, information and data. Open science therefore ensures that the work of all the researchers and stakeholders involved is fully recognized and properly attributed. Adoption of these principles and of this approach means a significant cultural change in the ways in which science is done and scientific results and underlying data are shared publicly by authors, journals and research organizations and thus made relevant to society. This cultural change is already happening in various scientific disciplines such as astronomy, neurobiology, molecular genetics and oceanography, among others. In the context of the Platform, the open science approach could engender very significant advances in data integration, analysis and interpretation and could lead to a better understanding of biodiversity and ecosystem services.

IV. Implementing the data and information management plan

13. Taking the objectives outlined above, the task force has identified the high-priority activities set out in the table below.

Proposed implementation of the data and information management plan in 2015

<i>Activities</i>	<i>By when</i>	<i>Output or outcome</i>
1. Reviewing and developing data and metadata guidelines	June 2015	Data and metadata guidelines ensuring that Platform products start on a sound and interoperable footing
2. Providing methodological principles for handling knowledge gaps and uncertainty	June 2015	Principles for handling knowledge gaps and uncertainty ensuring that Platform products start on a sound and interoperable foundation
3. Developing a proposal for a discovery and access platform for sustainable knowledge, information and data	December 2015	A web-based discovery and access platform, building on a network of relevant initiatives and institutions
4. Providing ready access to primary research literature for all Platform experts	December 2015	All experts in the assessment expert groups and task forces have access to the full range of literature needed to conduct the assessments
5. Establishing agreements with key strategic partners regarding knowledge, information and data	December 2015	Long-term collaboration and partnerships in place to provide access to existing data and information needed to support Platform products (e.g., assessments and policy support tools and methodologies)

<i>Activities</i>	<i>By when</i>	<i>Output or outcome</i>
6. Revising data and information management plan based on developments in 2015	December 2015	Plan updated and revised for 2016–2018 based on task forces' proposed knowledge, information and data strategy, consultations across the Platform and findings from other 2015 activities of the task force

14. The activities identified in the table are proposed because they represent either essential long-term planning activities, functions specifically requested by the Plenary or key elements that assessments will need to have in place as the assessment expert groups carry out their tasks. Towards the end of 2015, the broader knowledge, information and data strategy for the period 2015–2018 (see IPBES/3/INF/3) will build on these foundational elements and further develop the knowledge platform of the Platform according to international best practice.

15. The technical support unit will support the task force so that it delivers on its obligations on time and according to its mandate. The Bureau and Multidisciplinary Expert Panel will review all the products of the task force, as appropriate, and ensure links between it and other task forces and relevant expert groups of the Platform. The task force will seek active collaboration with all relevant stakeholders and lead institutions that have oversight and responsibility to drive existing relevant initiatives. These relationships will be developed as defined in the Platform's stakeholder engagement strategy.

16. The following paragraphs describe each of the high-priority activities proposed to implement the plan and identified in the table.

A. Activity 1. Reviewing and developing data and metadata guidelines

17. The task force has identified the following generic types of data, information or knowledge of relevance to the Platform:

(a) Data: these are obtained from observations or measurements and form the basis of monitoring, research, assessments and analysis. They may be categorized according to the following aspects:

- (i) Thematic (socioeconomic, ecological, landscape, etc.);
- (ii) Geographical (global, regional, subregional, local);
- (iii) Systematic (taxonomy), descriptive or trait-based;
- (iv) Material from indigenous and local knowledge systems;

(b) Metadata: these provide standardized descriptors of data that facilitate their characterization, management and exchange;

(c) Information: a quantitative product derived from data through aggregation, integration and analysis. The Platform is likely to rely extensively on the meta-analysis of information in order to produce assessments and knowledge;

(d) Metrics and indicators: these provide information that places data in a manner such that they can be used as products to identify trends in key variables, such as the status of a species or ecosystems and ecosystem services. As such, they can effectively feed into policy support tools and methodologies and could be used to support the writing of assessments (in a manner similar to the Global Biodiversity Outlook series of the Convention on Biological Diversity);

(e) Knowledge and knowledge products: knowledge is understanding gained through experience, reasoning, interpretation, perception, intuition and learning that is developed as a result of information use and processing. It informs actions that people may take and supports decision-making. In the course of completing its assessments, the Platform will both use and catalyse the generation of knowledge and knowledge products;

(f) Links and references: Links, for example those in the form of stable digital object identifiers, and bibliographical references, will provide access to the original data and metadata supporting the Platform's deliverables. In order to guarantee long-term access to that data, the Platform will need to keep an accurate, up-to-date and accessible list of references and links and adopt an open-access policy harmonized across a diversity of sources and knowledge systems.

18. Data and metadata protocols are essential to helping to boost access to, and the usability of, data generated by a community of globally distributed stakeholders. Data that comply with a standard have the same format and meaning (syntax and semantics) and so can be integrated with other data.

For example, in data portals data will be more easily accessed and widely used, allowing for robust analyses. Metadata capture information characterizing the scope and context of collected data vital for their reuse and integration and in this way facilitate their discovery.

19. The task force recommends that internationally accepted data standards and guidelines should be adopted when relevant regarding all types of data that pertain to biodiversity and ecosystem services in a broad sense, which may include species, ecological, agricultural, fisheries, socioeconomic and climate data, among others. Many biodiversity data guidelines (for example those for point occurrence data) have been developed by the community of biodiversity informatics under the umbrella of the biodiversity data standards (www.tdwg.org). Guidelines for many biodiversity and ecosystem data types are still lacking, however.

20. The task force recognizes the existence of many initiatives and systems for biodiversity and ecosystem services where data are not interoperable. The task force recommends an evaluation of data and information types relevant to the Platform that are well covered by existing standards and supports the development of new standards in collaboration with the existing range of stakeholders and organizations at all levels. The task force will work with stakeholders and its strategic partners to foster the interoperability of knowledge and data systems in a manner that promotes general accessibility through well-documented interfaces.

B. Activity 2. Providing methodological principles for handling knowledge gaps and uncertainty

21. Data, derived metrics and models in biodiversity and ecosystem services are imperfect and often limited in their scope. Supporting effective decision-making and policy relies on careful and clear delineation and communication of these limitations. Failing to quantify and document the uncertainty around observations, derived metrics or indicators and predictions may result in false conclusions or unwarranted action, for example regarding trends or prioritization. The guidelines will need to cover the following issues:

(a) Issues surrounding the quality of available raw data (e.g., identification or measurement accuracy and precision) are a key limiting factor for the quality of analyses and the decisions that they support. In addition to preventive or corrective action, data quality should be assessed and reported on in order to inform different types of downstream uses. The Platform will need to provide incentives for actions that contribute to a culture of data quality in biodiversity and ecosystem services, encompassing the development of methods, standards, tools and guidelines for the quality assessment of data and the prevention and correction of errors, policies on data quality and capacity-building;

(b) The results of the aggregation and analysis of available data all have an inherent uncertainty determined by factors including the size and independence of samples, model types and other methodological properties. The Platform's assessments will need to carefully address all sources of potential uncertainty, for example in climate, biodiversity and socioeconomic variables. They are expected to reduce uncertainty through careful methodology, dealing with structural uncertainty, and to characterize the degree of uncertainty in their findings;

(c) The range and scope of biodiversity and ecosystem service data that are available for metrics and analyses often only imperfectly represent the scope of assessment or policy support goals. Usually, data are systematically scarcer for certain regions, taxa, functions and services. Such biases have the potential to distort the Platform's results, indicators and, by extension, knowledge in a way that is not captured by traditional statistical metrics. The task force, with the support of the technical support unit, will develop standards that will allow the Platform's activities carefully and quantitatively to evaluate the congruence between the scope of available information and that of the Platform's assessment and reporting targets. The task force and the technical support unit will support the capacity-building task force in activities that help to document and assess limits to the representativeness of available data for the Platform and the resulting metrics and inference constraints and inform efforts to fill gaps in knowledge.

C. Activity 3. Developing a proposal for a discovery and access platform for sustainable knowledge, information and data

22. The task force, with support from the technical support unit, will develop a web-based infrastructure that facilitates identification and, where possible, access. The Platform's knowledge, information and data discovery and access system will build on and collaborate closely with partners, such as existing networks, to ensure the streamlined linkage of data and information, with appropriate attribution and metadata, into the Platform's assessments and repositories such as its catalogue of assessments. The Platform's knowledge, information and data partners include those generating and storing raw data (e.g., species occurrences, satellite imagery, climate data), indigenous and local community knowledge, indicators and metrics, literature and expert knowledge. The knowledge,

information and data discovery and access infrastructure and associated information and data streams will need clear terms of reference and long-term financial support. These will be developed further in the next update of the plan.

D. Activity 4. Providing ready access to primary research literature for all Platform experts

23. It has become clear to the task force from consultations with experts at various scoping and assessment meetings of the Platform during 2014 that many experts do not have the access to the wealth of primary, peer-reviewed literature that is essential for a well-informed and comprehensive assessment process. Exploring and ensuring access for all of the Platform's appointed experts to as much of this literature as possible will be a core task for the technical support unit, advised and supported by the task force.

E. Activity 5. Establishing agreements with key strategic partners regarding knowledge, information and data

24. Much of the work identified above will be carried out by established key partners in the field through collaborative agreements. The co-chairs of the task force will invite resource persons from various strategic partner organizations to participate in the work of the task force including the following: the International Council for Science, the Group on Earth Observations Biodiversity Observation Network (GEO BON), the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Global Biodiversity Information Facility (GBIF).

25. The technical support unit, in its work to support the task force, is launching a discussion process with a range of potential strategic partners. Identifying these partners is a key goal of the plan over the next year. The task force should develop a prioritization procedure for data partners by identifying the major overarching data and information needs that must be met in order to complete assessments and identify partners that can provide information in that regard.

26. Potential partners may include the International Council for Science; GEO BON; the UNESCO Man and Biosphere Programme; UNEP-WCMC; UNESCO; the United Nations Development Programme, with its Biodiversity and Ecosystem Services-Net portal (BES-Net); the International Union for Conservation of Nature (IUCN), with its Red List of Threatened Species and Red List of Ecosystems; the Food and Agriculture Organization of the United Nations, in the area of agriculture and forests under sustainable management and fisheries; TRAFFIC International, a joint programme of the World Wide Fund for Nature and IUCN, with its wildlife trade monitoring network; the Map of Life project, covering species distribution assessment and monitoring; the Intergovernmental Oceanographic Commission of UNESCO and the Ocean Biogeographic Information System; the Global Biodiversity Information Facility, with its species occurrence data; the Encyclopedia of Life online collaborative resource, with its species and trait data, and also its literature component; the Biodiversity Heritage Library, an open access repository of biodiversity literature; LifeWatch, the European e-science infrastructure for biodiversity and ecosystem research, with its biodiversity catalogue; the World Bank, with its comparative data on national gross domestic product; the Global Environment Facility assessment of freshwater and marine ecosystems; the World Database on Protected Areas; and the trade database of the Convention on International Trade in Endangered Species of Wild Fauna and Flora. They may also include national organizations.

27. Relevant knowledge products may include the Millennium Ecosystem Assessment reports; the Economics of Ecosystems and Biodiversity reports; the Global Biodiversity Outlook reports produced and published by the Convention on Biological Diversity; the United Nations Millennium Development Goal reports; assessment and special reports, technical papers and materials from the Intergovernmental Panel on Climate Change (IPCC) and the underlying data, technical guidelines and fact sheets from the IPCC Data Distribution Centre; World Bank reports; United Nations World Ocean Assessment reports in progress; and contributions from the Future Earth initiative of the Science and Technology Alliance for Global Sustainability.

28. As regional and subregional assessments are undertaken, potential strategic regional partners may emerge, such as the regional components of GEO BON, including the Arctic Biodiversity Observation Network (Arctic BON), the European Biodiversity Observation Network (EU BON), or the Asia Pacific Biodiversity Observation Network (AP BON). The technical support unit will, therefore, regularly update and review strategic partners to ensure that the Platform's assessments are properly supported by the most up-to-date data and information.

F. Activity 6. Revising data and information management plan based on developments in 2015

29. The task force recommends that the data and information management plan submitted in the present note should be considered as an initial draft that it will update and submit to the Plenary on a regular basis as the needs for data and knowledge management become better defined with the implementation of the work programme.

Annex III**Generic scoping report for the regional and subregional assessments of biodiversity and ecosystem services (deliverable 2 (b))****I. Scope, geographic area, rationale, utility and assumptions****A. Scope**

1. The overall scope of the regional and subregional assessments is to assess the status and trends regarding biodiversity, ecosystem functions and ecosystem services and their interlinkages, the impact of biodiversity, ecosystem functions and ecosystem services and threats to them on good quality of life and the effectiveness of responses, including the Convention on Biological Diversity Strategic Plan for Biodiversity 2011–2020 and its Aichi Biodiversity Targets and the national biodiversity strategies and action plans developed under the Convention.¹⁴ The assessments will address terrestrial, freshwater, coastal and marine biodiversity, ecosystem functions and ecosystem services.

2. The objective of the regional and subregional assessment processes is to strengthen the science-policy interface on biodiversity, ecosystem functions and ecosystem services at the regional and subregional levels. The assessments will analyse the state of knowledge on past, present and future interactions between people and nature, including by highlighting potential tipping points, feedback and trade-offs. The timeframe of analyses will cover current status, trends (often going back in time several decades) and future projections with a focus on periods ranging from 2020 to 2050, which cover key target dates related to the Strategic Plan for Biodiversity of the Convention on Biological Diversity and the ongoing process of developing the post-2015 development agenda. The conceptual framework of the Platform will guide these analyses of the social-ecological systems that operate at various scales in time and space.

3. The regional and subregional assessments will address the following policy-relevant questions:

(a) How do biodiversity and ecosystem functions and services contribute to the economy, livelihoods, food security, and good quality of life in the regions, and what are the interdependences among them?

(b) What are the status, trends and potential future dynamics of biodiversity, ecosystem functions and ecosystem services that affect their contribution to the economy, livelihoods and well-being in the regions?

(c) What are the pressures driving the change in the status and trends of biodiversity, ecosystem functions, ecosystem services and good quality of life in the regions?

(d) What are the actual and potential impacts of various policies and interventions on the contribution of biodiversity, ecosystem functions and ecosystem services to the sustainability of the economy, livelihoods, food security and good quality of life in the regions?

(e) What gaps in knowledge need to be addressed in order to better understand and assess drivers, impacts and responses of biodiversity, ecosystem functions and services at the regional level?

4. Additional specificities are presented in the complementary scoping reports of each region/subregion.

¹⁴ As expressed in deliverable 2 (b) of the work programme of the Platform (decision IPBES-2/5, annex I).

B. Geographic area of the assessment

5. For the purposes of the regional assessments, the geographic area of each assessment is described in the scoping report for each region. Where appropriate, information about and expertise from observer States, regional economic integration organizations and overseas territories should be made available to relevant regional and subregional assessments according to the rules and procedures of the Platform.

C. Rationale

6. Biodiversity, ecosystem functions and ecosystem services provide the basis for the economies, livelihoods and good quality of life of people throughout the world. The Strategic Plan for Biodiversity 2011–2020 and its Aichi Biodiversity Targets provide an overarching framework for effective and urgent action to halt the loss of biodiversity in order to ensure that by 2020 ecosystems are resilient and continue to provide essential services, thereby securing the planet's variety of life and contributing to human well-being and poverty eradication. These considerations are also included in the ongoing development of the post-2015 development agenda and its possible sustainable development goals. Regional and/or national biodiversity strategies and action plans are important vehicles for implementing the Aichi Biodiversity Targets and adapting them to regional and national conditions. All these efforts require a strong knowledge base and strengthened interplay between scientists and policymakers and different knowledge systems, to which the regional and subregional assessments are well placed to contribute.

7. The assessments will themselves be a vehicle for implementation of the Platform's functions as they relate to capacity-building, identification of knowledge gaps, knowledge generation and development of policy support tools. Furthermore, such assessments are critical to furthering the Platform's operational principle of ensuring the full use of national, subregional and regional knowledge, as appropriate, including a bottom-up approach.

8. Additional specificities are presented in the complementary scoping reports of each region and subregion.

D. Utility

9. The regional and subregional assessments on biodiversity, ecosystem function and ecosystem services will provide users with a credible, legitimate, authoritative, holistic and comprehensive analysis of the current state of scientific and other knowledge. They will analyse options and policy support tools for sustainable management of biodiversity, ecosystem function and ecosystem services under alternative scenarios and present success stories, best practices and lessons learned. They will identify current gaps in capacity and knowledge and options for addressing them at relevant levels.

10. The assessments will inform a range of stakeholders in the public and private sectors and civil society. In particular, requests to the Platform for regional assessments were made by China, Norway, UNEP, the Pan-European Platform and IUCN, along with a large variety of requests to address the Strategic Plan for Biodiversity 2011–2020 and its Aichi Biodiversity Targets at regional scales (IPBES/2/INF/9). Outcomes of regional assessments will be presented to a broad audience as outlined in the platform's communications strategy, with detailed information including easy-to-understand infographics, maps and geographical information systems' outcomes. The outputs will also include a summary for policymakers, highlighting key policy-relevant, but not policy-prescriptive, findings. The information will be widely disseminated, including by making use of new information and communications technologies.

11. Additional specificities are presented in the complementary scoping reports of each region/subregion.

E. Assumptions

12. The regional and subregional assessments will be based on existing data, scientific literature, and other information, including indigenous and local knowledge. Regional assessments will assess the state of knowledge on subregional-specific issues as an integral part of the overall analysis. This knowledge will be gathered from the published literature, including grey literature, according to guidelines of the Platform, and also through bodies such as national academies of science, national research institutes, scientific societies and other research communities, government environmental agencies and statistical offices. The regional and subregional assessments will also use existing data and information held by global, regional, subregional and national institutions, such as the relevant multilateral agreements. Experts involved in regional assessments with work closely with the task force on indigenous and local knowledge systems to ensure that the multiple sources of knowledge are drawn upon. Attention will be given, in accordance with the Platform's data and information

management plan, to ensure the collection and archiving of the corresponding metadata, and whenever possible the corresponding underlying data, through an interoperable process to ensure comparability between assessments across regions. Also, should new regional assessments be undertaken, data and information should be available for future work of the Platform. Whenever possible, the sets of metadata will thus contain information on the geographical location and temporal reference of the underlying data as well as the scientific protocol with which they were collected.

13. The author expert groups for the different regional and subregional assessments will, in accordance with the procedures, reflect the need for geographic balance within the regions. They will interact with each other, and with similar groups undertaking global, thematic and methodological assessments in order to ensure conceptual and methodological coherence. They will also work closely with the task forces on knowledge and data, indigenous and local knowledge systems and capacity-building taking into account the rights of knowledge holders. The author groups will be supported by the guide to the production and integration of assessments (see IPBES/3/INF/4).¹⁵

14. The assumptions underlying the regional and subregional assessments include the availability of the necessary expertise and the dependence of the assessment on voluntary contributions to the initiative, including financial resources. It is assumed that there will be sufficient direct and in-kind funding and technical support available for the preparation and implementation of the assessments.

15. Additional specificities are presented in the complementary scoping reports of each region and subregion.

II. Chapter outline

Chapter 1. Setting the scene

16. Chapter 1 will present the policy-relevant questions identified for each region and subregion and explain how each assessment reflects the conceptual framework and the framework for the science-policy interface. It will demonstrate how the assessment addresses policy questions, including those related to implementation of the Convention on Biological Diversity Strategic Plan 2011–2020 and its Aichi Biodiversity Targets. It will present regional and subregional aspects of priority thematic challenges identified by the Platform, such as land degradation and restoration, invasive alien species, and sustainable use of biodiversity as addressed in the thematic assessments. It will also outline the methodologies and approaches used in the assessment, including its approach to the use of different knowledge systems, and outline how the assessment will identify and address uncertainties and gaps in data and knowledge. It will identify the relevant stakeholders requesting the regional assessment and their priorities.

Chapter 2. Nature's benefits to people and quality of life

17. Chapter 2 will reflect the conceptual framework boxes “Nature’s benefits to people” and “Good quality of life” and the fluxes between them. It will assess the values of nature’s benefits to people, including the interrelationship between biodiversity, ecosystem functions and society, the geographical difference between the production and use of ecosystem services and the status, trends and future dynamics of ecosystem goods and services and nature’s gifts to people. It will apply methods described in the guide for assessments (IPBES deliverable 2 (a)) and interact closely with the thematic assessments in deliverable 3 (b). It will also assess the different impacts of changes in nature’s benefits to people with regard to food security, energy security, livelihood security and health security and identify aspects of biodiversity and ecosystem functions and services that are critical to social relationships, spirituality and cultural identity. It will also address issues of equity, including intergenerational and intragenerational equity, social relationships, spirituality and cultural identity with respect to biodiversity and ecosystem functions and services. The chapter will reflect in particular Goal D of the Strategic Plan for Biodiversity and will address issues related to the three Aichi Biodiversity Targets under this goal (Aichi Biodiversity Targets 14, 15 and 16) as well as target 18.

¹⁵ The guide includes guidance on dealing with scale, indicators, uncertainty terms, use of key methodologies (scenario analysis, consideration of value), how to address policy support tools and methodologies, and on the identification of capacity needs, gaps in knowledge and data and protocols with regard to the integration of diverse knowledge systems.

Chapter 3. Status, trends and future dynamics of biodiversity and ecosystems underpinning nature's benefits to people

18. Chapter 3 will reflect the conceptual framework box “Nature”, emphasizing the components and fluxes that have an impact on “Nature’s benefits to people”. It will assess what is known about the past and current trends and future dynamics of biodiversity and ecosystems and their positive and negative effects on the key ecosystem goods and services identified in chapter 2. It will consider both structural and functional ecosystem diversity and genetic diversity and the area and extent of ecosystems and include fragile habitats and hotspots and species of special concern and importance such as Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) species, migratory species and International Union for Conservation of Nature (IUCN) threatened species, taking into account species listed at the national level where relevant. It will also include species that are important for the functioning of ecosystems and livelihoods. Available forecasts on current trends will also be outlined. The chapter will also explore how changes in “Nature” have an impact on “Nature’s benefit to people”. The chapter will reflect in particular Goal C of the Strategic Plan for Biodiversity and will address issues related to the three Aichi Biodiversity Targets under this goal (Aichi Biodiversity Targets 11, 12 and 13) as well as relevant aspects of Aichi Biodiversity Target 14.

Chapter 4. Direct and indirect drivers of change in the context of different perspectives on quality of life

19. Chapter 4 will reflect the conceptual framework boxes and fluxes on “Institutions and governance and other indirect drivers” and “Direct drivers”. It will assess the status and trends and future dynamics of indirect drivers, focusing in particular on those affecting “Nature” and “Nature’s benefits to people” as the foundation for “Good quality of life”. It will assess the status and trends in direct drivers, as well as the impact of these drivers on “Nature”, based on future predictions, and analyse the interrelations between and among direct drivers and indirect drivers. Indirect drivers include policy changes, changes in economic activity, population change and technology change. Consideration will be given to how institutional and governance arrangements contribute to changes in biodiversity, ecosystem functions and ecosystem services. Direct drivers include habitat conversion, use of aquatic resources, including through fisheries, land management practices, use of wild species, pollution, invasive alien species, the impact of climate change on nature and extreme events. The chapter will reflect in particular Goals A and B of the Strategic Plan for Biodiversity and will address issues covered by the Aichi Biodiversity Targets under this goal (in particular Aichi Biodiversity Targets 4, 5, 6, 7, 8, 9 and 10).

Chapter 5. Integrated and cross-scale analysis of interactions of the natural world and human society

20. Chapter 5 will reflect all the boxes and fluxes of the conceptual framework. It will build on the analysis in the previous chapter and make extensive use of scenarios and modelling in its analysis. It will focus on the key issues that society is expected to face over the next 40 years that will determine the dynamics of the interactions between society and nature. It will include integrated and cross-scale analysis of these dynamics, including feedback, synergies, time lags, tipping points, resilience, cross-regional interrelations and trade-offs. The chapter will explore various paths towards sustainable development; this involves exploring changes in the trajectories of multiple drivers and the role played by synergies, trade-offs and adaptive behaviour. The chapter will relate to the long-term 2050 vision of the Strategic Plan for Biodiversity and will help to identify possible pathways to achieve this vision. It will rely heavily on outputs of the thematic assessment on scenarios and models of biodiversity, ecosystem function and ecosystem services (Platform deliverable 3 (c) and recommendations in the guide for regional and global assessments (Platform deliverable 2 (a)).

Chapter 6. Options for governance, institutional arrangements and private and public decision-making across scales and sectors

21. Informed by the analysis in previous chapters, chapter 6 will reflect the conceptual framework boxes and fluxes on “Institutions and governance and other indirect drivers”. It will examine different policy ideas and possible options for decision makers at the regional and subregional levels in response to the scenario set out in previous chapters, in particular chapter 5. Explorations of options will be policy relevant, but not policy prescriptive, as outlined in the principles of the Platform. Options explored will include different policy instruments, market tools, conservation and management practices and international and regional agreements. The chapter will look at options at different hierarchical spatial and temporal scales, from the international level to local and indigenous communities and households. It will explore options for policy mixes and alignments in polycentric governance systems, assess the effectiveness of such options and consider who would gain or bear

their cost. The chapter will analyse future challenges for sustainable use and conservation in key sectors in each region and assess options for integrating biodiversity, ecosystem function and ecosystem services into poverty reduction strategies and national accounting and, where appropriate, the recognition of the rights of Mother Earth. The analyses will include incentives, subsidies harmful to biodiversity, positive incentives for the conservation and sustainable use of biodiversity, ecosystem function and ecosystem services, as well as measures taken to achieve sustainable production and consumption of biodiversity, ecosystem function and ecosystem services and rights-based approaches to address biodiversity conservation. The chapter will also identify the enabling environments and limitations for policy uptake and lessons learned, including solutions and methods for ensuring success and capacity-building needs. It will address issues related to Goals A and E of the Strategic Plan for Biodiversity and the relevant Aichi Targets (in particular Aichi Targets 1, 2, 3,4, 17,18, 19 and 20) as well as target 16.

22. Additional specificities are presented in the complementary scoping reports of each region and subregion.

III. Key data sets

23. The regional assessments will draw on a wide variety of data sets addressing all the specific components of the conceptual framework. A key activity of the regional and subregional assessments will be to identify relevant data sets, including those arising from ongoing and planned activities, from a wide range of sources, including global, regional and national institutions and organizations, as well as research projects and analysis of the scientific literature and indigenous and local knowledge. The Platform's catalogue of assessments will also be used as a source of information. The common framework on data standards developed by the knowledge and data task force will be applied to all assessments in order to facilitate intraregional, interregional and subregional comparisons. The task force on indigenous and local knowledge systems will provide guidance and procedures for the analysis and use of indigenous and local knowledge. The capacity to perform these tasks will be strengthened through training, knowledge-sharing and collaboration between subregions and countries where needed.

24. Additional specificities are presented in the complementary scoping reports of each region and subregion.

IV. Strategic partnership and initiatives

25. In accordance with the operating principles of the Platform, partnerships are important in order to avoid duplication and promote synergies with ongoing activities. Strategic partnerships and collaboration will help to deliver the regional and subregional assessments. They could provide scientific and technical support, data sets and reports, administrative support, capacity-building, outreach and networking, experience in bridging science and policy and experience in working with indigenous and local knowledge systems. Strategic partnerships will be formal and informal and attention will be paid to ensuring geographic balance in their development. During the inception phase, each regional and subregional assessment process will identify a list of possible strategic partners, including strategic partners who would ensure repeatability and comparability with other Platform assessments beyond the 2014–2018 work programme.

26. Additional specificities are presented in the complementary scoping reports of each region and subregion.

V. Operational structure

27. The operational structures that could best deliver a particular regional and subregional assessment will need to be identified. A technical support unit, working as part of the secretariat, may be established for each regional and subregional assessment to coordinate the delivery of the assessments.

VI. Process and timetable

28. The proposed process for undertaking the assessments and the timetable are outlined in the following table.

Process and timetable for regional and subregional assessments

<i>Date</i>	<i>Actions and institutional arrangements</i>
2015	
First quarter	Plenary at its third session approves the conduct of the regional assessments coupled with the thematic assessments (starting with land degradation and adding thematic assessments on invasive species and sustainable use if approved by the fourth session of the Plenary), asks for offers of in-kind technical support for the assessments and requests the Bureau and the secretariat to establish the necessary institutional arrangements to put in place technical support The Chair, through the secretariat, requests nominations, from Governments and other stakeholders, of experts to prepare the assessment report
Second quarter	Secretariat compiles lists of nominations The Panel selects the assessment co-chairs, coordinating lead authors, lead authors and review editors, using the approved selection criteria set out in decision IPBES-2/3 (IPBES/2/17, annex) Meeting of the Management Committee (co-chairs, head of the technical support unit and Multidisciplinary Expert Panel/Bureau members) to select remaining expert team and respective roles (i.e., coordinating lead authors, lead authors and review editors) Selected nominees contacted, gaps filled and list of co-chairs, authors and review editors finalized
Third quarter	First author meeting (100 participants per region, including 15 thematic experts embedded in the regional expert groups: co-chairs, coordinating lead authors and lead authors, plus Panel/Bureau members)
2016	
First quarter	First draft of chapters prepared for the regional assessment (6–7 months); drafts sent to secretariat (technical support units)
Second quarter	First draft of regional assessment sent for expert review (6 weeks) Collation of review comments by secretariat and technical support units for first draft of regional assessment sent to authors (2 weeks)
Second/early third quarter	Second author meetings for the regional assessments in the regions coupled with second author meeting for the land degradation assessment and the first author meetings for the invasive alien species and sustainable use assessments, if approved by the fourth session of the Plenary. (100 people per region including the 15 thematic experts embedded in the regional assessments: co-chairs, coordinating lead authors, lead authors and review editors)
Third quarter	Second draft of chapters and first draft of summary for policymakers prepared for the regional assessment (5–6 months)
2017	
First quarter	Second draft of the regional assessment and first draft of the summary for policymakers sent for government and expert review (2 months)
First quarter	Collation of review comments for second draft of the regional assessment and first draft of the summary for policymakers sent to authors (2 weeks)
Second quarter	Third author meeting for the regional assessment coupled with third author meeting for land degradation and second author meetings for invasive alien species and sustainable use assessments (30 participants per region: co-chairs, coordinating lead authors and review editors and Panel/Bureau members)
Third quarter	Final text changes to regional assessment and the summary for policymakers (3 months)
Third quarter	Translation of summary for policymakers into the six official languages of the United Nations (1 month)
Fourth quarter	Submission of the regional assessment, including the translated summary for policymakers, to Governments for final review prior to the Plenary (6 weeks)

Fourth quarter	Final government comments on the summary for policymakers for consideration by authors prior to the next Plenary session
2018	
January (To be confirmed)	Plenary to approve/accept regional assessments, including the summaries for policymakers

VII. Cost estimate

29. The table below shows the estimated cost of conducting the assessments and preparing the assessment reports in all four regions. Cost estimates will need to be adjusted to the expected nature and level of activity of the regional assessments.

<i>Year</i>	<i>Cost item</i>	<i>Assumptions</i>	<i>Cost (United States dollars)</i>
2015	4 x Management committee meeting (2 co-chairs, head of technical support unit, secretariat)	Meeting costs Travel and DSA (3 x \$3,750)	0 45 000
	4 x First author meeting (100 co-chairs, coordinating lead authors and lead authors)	Meeting costs (1 week, regional, 100 participants) (25 per cent in kind) Travel and DSA (80 x \$3,000)	75 000 960 000
	4 x Technical support	2 full-time equivalent professional positions (50 per cent in kind)	600 000
	2016	4 x Second author meeting (110 co-chairs, coordinating lead authors, lead authors and review editors)	Meeting costs (1 week, international, 110 participants) (25 per cent in kind) Travel and DSA (88 x \$3,000)
4 x Technical support		2 full-time equivalent professional positions (50 per cent in kind)	600 000
4 x Third author meeting (30 co-chairs, coordinating lead authors and review editors)		Meeting costs (1 week, regional, 30 participants) (25 per cent in kind) Travel and DSA (24 x \$3,750)	37 500 360 000
2017	4 x Technical support	2 full-time equivalent professional positions (50 per cent in kind)	600 000
2018	4 x Co-chairs' participation in the fifth session of the Plenary	Travel and DSA (2 x \$3,750)	30 000
	4 x Dissemination and regional outreach (summary for policymakers (3 x 10 pages) and report (200 pages))	Translation of summaries for policymakers into all United Nations languages, publication and outreach	468 000
Total			4 981 500

VIII. Communications and outreach

30. The regional and subregional assessment report and its summary for policymakers will be published in electronic format. The summary for policymakers will be available in all official languages of the United Nations and will be printed on demand. These reports will be made available on the Platform website. Outreach to a broad set of stakeholders, including the general public, will be based on the Platform's communications and outreach strategy. Dissemination will target all Platform stakeholders and will be adapted to the specific interests of different users, and metadata used in the assessments will be made publicly available in accordance with relevant guidance developed by the Platform.

IX. Capacity-building

31. A key objective of the regional assessments is to build capacity to undertake assessments at the regional and subregional levels and to initiate a broader community capacity-building exercise that will continue after the assessments are complete, including in particular the strengthening of effective contributions of indigenous and local knowledge systems to assessments. The regional and subregional assessments will be supported by the task force on capacity-building and its technical support unit, in particular through the implementation of the proposed programme on fellowship, exchange and

training presented in document IPBES/3/3.16 The regional and subregional assessments will identify a pool of experts that can be used to support capacity-building activities related to the Platform.

32. Additional specificities are presented in the complementary scoping reports of each region and subregion.

Annex IV

Scoping for a regional assessment of biodiversity and ecosystem services for Africa (deliverable 2 (b))

I. Scope, geographic area, rationale, utility and assumptions

A. Scope

1. Within the scope outlined in the generic scoping report for the regional and subregional assessments of biodiversity and ecosystem services (decision IPBES-3/1, annex III), the African assessment will focus on thematic priorities, including the food-energy-water-livelihood nexus; land degradation, including climate-related risks such as desertification and silting; catchment to coast; biodiversity conservation and sustainable use; and invasive alien species. The assessment will also include the following cross-cutting themes to be addressed, as appropriate, as part of the thematic priorities listed above: trade agreements and foreign investment; and environmental health and zoonotic diseases.

B. Geographic area of the assessment

2. The assessment will include countries and territories in five subregions:

<i>Subregions</i>	<i>Countries and territories</i>
East Africa and adjacent islands	Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Mauritius, Mayotte, ^a Reunion, ^a Rwanda, Seychelles, Somalia, South Sudan, Uganda and United Republic of Tanzania
Southern Africa	Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe
Central Africa	Burundi, Cameroon, Central African Republic, Chad, Congo, Democratic Republic of the Congo, Equatorial Guinea, Gabon and Sao Tome and Principe
North Africa	Algeria, Egypt, Libya, Mauritania, Morocco, Sudan, Tunisia and Western Sahara ^b
West Africa	Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo

^a Overseas territory.

^b Territory under negotiation between the parties concerned, as recognized by the Security Council and the General Assembly of the United Nations in their relevant resolutions.

C. Rationale

3. In the context of the general rationale outlined in the generic scoping report, the present section sets out the rationale specific to the Africa region. Africa is characterized by great biodiversity and varied ecosystems, ranging from desert environments to tropical rainforests, Afro-alpine areas and marine habitats. There is also enormous human diversity, with upwards of 1,500 language and cultural groups, representing a rich heritage and a wealth of indigenous and local knowledge stemming from the longest history of human-environment interactions. These interactions are also most acute in the Africa region, where people are heavily dependent on biodiversity and ecosystem services. The nature of these interactions will drive the degradation of biodiversity and ecosystem services if they are not refocused to harness nature's benefits to people more efficiently, at the same time ensuring the sustainability and resilience of biodiversity and ecosystems. The thematic priorities referred to in section I (A) highlight both the unique biocultural heritage of the region and the critical role that biodiversity and ecosystem services play in improving livelihoods within the context of demographic change (population growth, gender relations and urbanization), economic growth and poverty reduction. The assessment should focus on the links between biodiversity, ecosystem functions and nature's benefits to people, paying particular attention to questions of equity, social relationships,

¹⁶ The programme includes components such as fellowships, a programme for temporary secondment of staff and exchange of individuals, a mentoring scheme and training programmes.

spirituality and cultural identity and diversity. In addition, the assessment should consider the relationship between trade agreements and foreign investments, biodiversity and ecosystem services. The assessment should consider which policy and institutional drivers are internal to the region, as opposed to external drivers with internal impacts.

D. Utility

4. In the context of the general utility outlined in the generic scoping report, the present section sets out the utility specific to the Africa region. The assessment will identify key priorities that will help policymakers to develop policy solutions to meet the specific needs of the Africa region as a whole, as well as the five subregions and their national constituents. The knowledge produced in the assessment, as well as its policy recommendations, will help African Governments and institutions to develop strategies to meet the sustainability and conservation goals set out in the Aichi Biodiversity Targets and the sustainable development goals that will come into force in 2015. The assessment report will also be of interest to the institutions involved in intra-African trade policies, biodiversity and ecosystem services and conservation policy and development such as the African Union, the African Ministerial Conference on the Environment, the Intergovernmental Authority on Development in Eastern Africa, the Commission for the Forests of Central Africa, the Southern African Development Community and the Economic Community of West African States. The knowledge and recommendations produced in this assessment will also be important sources of information for other stakeholders, including the private sector, concerned with the state of biodiversity in Africa and its sustainable future. Interested civil society organizations, such as non-governmental organizations, the media and individuals, may also find the document a useful source of information linking Africa's biodiversity and ecosystem services to human well-being.

E. Assumptions

5. In the context of the general assumptions outlined in the generic scoping report, the present section sets out the assumptions specific to the Africa region. The assumptions underlying the assessment include the idea that it is necessary to ensure that the authors of the assessment are the best qualified, which will require government national focal points to take a proactive approach in nominating experts of the highest calibre. This will ensure not only the quality of the document but also its relevance. In addition, the process assumes a fundamental reliance on the availability of necessary African experts able and willing to contribute to the initiative and sufficient resources, including financial resources. Access to and the availability of global databases and monitoring systems, including relevant information on the Africa region, are central to this assumption. In order to ensure that the document is of the highest quality, national focal points and observers will need to take a proactive approach in nominating experts of the highest calibre. In view of the great need for capacity-building in the region, there is a further assumption that collaboration between countries in the region, their experts and research organizations will be required to ensure the equitable participation of all countries in the assessment. There will also be a need to source data from various sources as defined by the procedures for the use of literature and to rely on indigenous and local knowledge to fill gaps in scientific knowledge and bring a different perspective to a scientific understanding of human-nature interactions and dependence. There will also be a need to support research programmes to address data and knowledge gaps.

II. Chapter outline

6. The assessment of the Africa region will follow the chapter outline set out in the generic scoping report for the regional and subregional assessments of biodiversity and ecosystem services but will focus in particular on the regionally specific scope set out above (see sect. I).

III. Key data sets

7. Beyond the general issues concerning key data sets outlined in the generic scoping report, this section sets out issues related to key data sets specific to the Africa region. All the appropriate sources of information will be considered when preparing the assessment in order to ensure that it comprehensively reflects the regional and subregional situation in Africa from a wide range of sources, including global, regional, national, subnational and local institutions and organizations.

IV. Strategic partnership and initiatives

8. Beyond the general issues related to strategic partnerships and initiatives outlined in the generic scoping report, the present section sets out issues related to strategic partnerships and initiatives specific to the Africa region. Stakeholder mapping will be conducted to identify the following groups: coordinating agencies providing technical support during the assessment process; data centres and scientific institutions providing knowledge, data and resource persons and structural support for the process; economic cooperation communities; private sector data and knowledge providers and potential funders; networks and technical cooperation partners for wider support of data, methods and resources; United Nations agencies and international research programmes; and outreach partners.

V. Operational structure

9. As noted in the generic scoping report, the operational structures best able to deliver the Africa regional assessment, including its capacity-building component, will need to be identified. A technical support unit may be established for the Africa region to coordinate delivery, working as part of the secretariat. In addition, subregions would propose institutions that would provide capacity-building support for the process.

VI. Process and timetable

10. The process and timetable are set out in the generic scoping report for the regional and subregional assessments of biodiversity and ecosystem services.

VII. Cost estimate

11. The cost estimate is set out in the generic scoping report for the regional and subregional assessments of biodiversity and ecosystem services.

VIII. Communications and outreach

12. In addition to what is outlined in the generic scoping report, in Africa the role of technical support units, national focal points, regional and subregional hubs and centres of excellence will be crucial. A clear set of goals and objectives for the communications and outreach strategy relevant to the Africa region will be developed. It is recommended that the stakeholder mapping and communication strategy be undertaken in collaboration with science communication professionals, possibly through a partnership with relevant institutions. Key findings of the assessment should be conveyed to the stakeholders in the appropriate languages and should be accessible and culturally and politically relevant. Traditional communication tools such as presentations, brochures and awareness-raising events will be used to disseminate the findings of the assessment. In addition, appropriate communications and outreach tools should be used, including modern information and communication technologies and media platforms such as social networks, scientific websites and the media.

IX. Capacity-building

13. As noted in the generic scoping report, capacity-building activities will be supported by the work programme of the Platform as implemented by the capacity-building task force. Capacity-building activities will be aligned with the task force work programme and will be carried out continuously throughout the assessment. This will be a learning process. Capacity-building will be implemented through partnerships and target both individuals and institutions. Some of the key priorities identified for capacity-building in Africa include increasing capacity to carry out and use national and regional assessments; improving capacity for policy formulation, access to and generation of data, information and knowledge and lessons learned; increasing capacity for enhanced and meaningful multi-stakeholder engagement; developing capacity to bring together science with local knowledge; improving capacity for interdisciplinary and cross-sectoral communication and collaboration; building capacity to enhance the human resource and skills base, including through North-South and South-South collaboration; and enhancing the capacity to participate effectively in assessments by the Platform.

Annex V

Scoping for a regional assessment of biodiversity and ecosystem services and functions for the Americas (deliverable 2 (b))

I. Scope, geographic area, rationale, utility and assumptions

A. Scope

1. The region's rich biodiversity and its benefits to people provide essential contributions to the economy, livelihoods, the quality of life and the eradication of poverty. The region is also bioculturally diverse, with traditional knowledge of indigenous people and local communities promoting, among other things, the diversification and conservation of many varieties of cultivated plants and domestic animals that are the staple foods of many other regions of the world. The region has successful experiences in biodiversity conservation, restoration and sustainable use, including some carried out by indigenous people and local communities. On the other hand, climate change, population growth and the consequent increase in demand for food, biomass and energy continue to have a serious impact on biodiversity and ecosystem services and functions. These impacts are felt not only in terrestrial ecosystems, but also in wetlands, freshwater, coastal and marine ecosystems. In some areas of the Americas, the degree of these impacts on biodiversity and ecosystem services and functions is threatening the economy, livelihoods and quality of life.

2. Within the scope outlined in the generic scoping report (decision IPBES-3/1, annex III), the objective of this assessment will consider these effects, as well as future threats to biodiversity and ecosystem services and their benefits for a good quality of life in the Americas and its subregions (North America, Mesoamerica, the Caribbean and South America), taking into account their differences and the multiple types of social and economic inequality and distinctive biophysical conditions. Key processes, including urbanization and deruralization, natural resource exploitation, pollution, climate change, loss and degradation of natural habitats (terrestrial, freshwater, coastal and marine) in the subregions, and their impact on biodiversity, as well as the benefits of biodiversity and ecosystem services and functions for people and quality of life, will be taken into account in the assessment of the Americas. The purpose is to make policy-relevant knowledge accessible and useful, using a multidisciplinary and multi-knowledge systems approach, and improving the science-policy interface aiming to improve governance towards sustainable uses of biodiversity and ecosystem services and functions. The assessment will also identify the specific needs of each of the America's subregions regarding support tools at different scales, knowledge gaps and capacity-building needs, including the development of capacity for future sustainable uses of biodiversity.

B. Geographic area of the assessment

3. For the purpose of this assessment, the Americas extend from the Arctic region in the north to the sub-Antarctic region in the south, crossing the equator. There are many ways to subdivide this large region, but for the scope of this regional assessment it has been divided into four subregions: North America, Mesoamerica, the Caribbean and South America:

<i>Subregions</i>	<i>Countries</i>
North America	Canada and United States of America
Mesoamerica	Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua and Panama
Caribbean	Antigua and Barbuda, Bahamas, Barbados, Cuba, Dominica, Dominican Republic, ^a Grenada, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines and Trinidad and Tobago.
South America	Argentina, Bolivia (Plurinational State of), Brazil, Chile, Colombia, Ecuador, Guyana, ^a Paraguay, Peru, Suriname, Uruguay and Venezuela (Bolivarian Republic of)

^a On socioeconomic, cultural and historical grounds, the Dominican Republic could be considered part of Mesoamerica, and Guyana part of the Caribbean.

Because of the size of North America and South America in relation to the other subregions, their latitudinal extent and varied physiography, additional subdivisions of these subregions will be contemplated in the subregional assessment.

C. Rationale

4. Biodiversity and ecosystem services and functions make essential contributions to the economy, livelihoods and good quality of life of people throughout the world. The Strategic Plan for Biodiversity 2011–2020 and its Aichi Biodiversity Targets seek to provide an overarching framework

for effective and urgent action to manage biodiversity in order to ensure that by 2020 ecosystems are resilient and continue to provide essential functions and services, thereby contributing to peoples' quality of life and poverty eradication. These considerations are also included in the ongoing development of the post-2015 development agenda. Regional and/or national biodiversity strategies and action plans are important vehicles for implementing the Aichi Biodiversity Targets and adapting them to regional and national conditions. All these efforts require a strong knowledge base and strengthened interplay between scientists and policymakers, and between different knowledge systems to which the regional and subregional assessments are well placed to contribute. The assessments will themselves be a vehicle for the implementation of the Platform's functions as it relates to capacity-building, the identification of gaps, knowledge generation and the development of policy support tools. Furthermore, such assessments are critical to furthering the Platform's operational principle of ensuring the full use of national, subregional and regional knowledge, as appropriate, including by ensuring a bottom-up approach.

D. Utility

5. The assessment will inform a range of stakeholders in the public and private sectors and civil society, including indigenous people and local communities, which will benefit from sharing information and data that allows progress to be made towards the Aichi Biodiversity Targets. The Americas assessment will provide users with a credible, legitimate, authoritative, holistic and comprehensive analysis of the current state of regional and subregional biodiversity and ecosystem services and functions, based on scientific and other knowledge systems, and with options and policy support tools for the sustainable management of biodiversity and ecosystem services and functions under alternative scenarios; it will also present success stories, best practices and lessons learned. It will identify current gaps in capacity and knowledge and options for addressing them at relevant levels. It will be presented both as a source of detailed information with easy-to-understand infographics, maps and other visual tools, including multiple sources of information from indigenous and local knowledge systems, and in the form of a summary for policymakers, highlighting key policy-relevant, but not policy-prescriptive, findings. The information will be widely disseminated, including by making use of new information and communications technologies.

E. Assumptions

6. In the context of the general assumptions outlined in the generic scoping report, the present section sets out the assumptions specific to the region. The central assumption of the scoping for the Americas regional assessment is that science-based knowledge and indigenous and local knowledge are both relevant to the process. These two types of knowledge systems will be utilized in the assessment. In accordance with the rules of procedure of the Platform, the draft assessment report will be open to peer review by experts, policymakers and stakeholders, including indigenous people and local communities. Another critical assumption highlighted by the scoping process is that the assessment will be scale-dependent and that, while carried out at the regional and subregional levels, all scales are equally important for its scope. In addition to findings at the regional or transboundary levels, local-level patterns and processes are also important in addressing biodiversity and biocultural diversity in the subregions, the relative gaps in science-based knowledge, as well as access to and information from indigenous peoples and local knowledge systems. It is further assumed that the region will have two working languages: English and Spanish.

II. Chapter outline

7. The assessment of the Americas region will follow the chapter outline set out in the generic scoping report but will focus in particular on the regionally specific scope set out in section I above. In addition, chapter 2 will examine the intrinsic value of biodiversity beyond its anthropocentric value underpinning nature's benefits to people.

III. Key data sets

8. Beyond the general issues concerning key data sets outlined in the generic scoping report, the present section sets out issues related to key data sets specific to the region. Relevant data sets from ongoing activities drawn from a wide range of sources, including global, regional, national, subnational and local institutions and organizations, will feed into those from the Americas regional assessment. Some examples are national biodiversity and strategic action plans, national reports, United Nations agencies, regional and national government research bodies, relevant data portals and repositories and subregional and national data sets, as well as data sets from literature, research and citizen science projects, in accordance with Platform procedures.

IV. Strategic partnership and initiatives

9. Beyond the general issues concerning strategic partnerships and initiatives outlined in the generic scoping report, the present section sets out issues related to strategic partnerships and initiatives specific to the region. In order to avoid duplication and identify synergies, the Americas regional assessment process will develop strong connections with regionally specific activities of relevant multilateral environmental agreements. It will also build strategic partnerships with United Nations regional agencies and public or private stakeholders that could provide scientific and technical support to the assessment. Regional, national and local community networks, including indigenous people and local community organizations, could help in linking the Americas regional assessment to local and other knowledge systems and could help on outreach and communication, in accordance with Platform procedures.

V. Operational structure

10. As noted in the generic scoping report, the operational structures best able to deliver the Americas regional assessment, including its capacity-building component, will be identified and utilized. A technical support unit may be established for the Americas region to coordinate the delivery of the regional assessment, working as part of the secretariat.

VI. Process and timetable

11. The process and timetable are set out in the generic scoping report for the regional and subregional assessments of biodiversity and ecosystem services.

VII. Cost estimate

12. The cost estimate is set out in the generic scoping report for the regional and subregional assessments of biodiversity and ecosystem services.

VIII. Communications and outreach

13. In addition to what is outlined in the generic scoping report, it is suggested that national and local governments be encouraged to translate relevant material from the Americas regional assessment report into local and native languages. The Platform will also engage with the relevant scientific community, knowledge holders, stakeholders and policymakers through national focal points and a non-exhaustive list of partners, including national science foundations, academies of science, branches of relevant United Nations agencies, biodiversity and ecosystem services and functions, regional and national networks, centres of excellence, research institutions, universities, international organizations, local, subregional and regional non-governmental organizations, and networks and organizations of indigenous people and local communities, as appropriate and needed.

IX. Capacity-building

14. Capacity-building will be based on the priorities submitted to the Platform by Governments and other stakeholders and will target individuals, institutions and indigenous and local communities through fellowships, training programmes and technical support with regard to access to and management of relevant data and information. It will support the establishment and/or strengthening of regional, subregional and national platforms and networks.

Annex VI

Scoping for a regional assessment of biodiversity and ecosystem services for Asia and the Pacific (deliverable 2 (b))

I. Scope, geographic area, rationale, utility and assumptions

A. Scope

1. Within the scope outlined in the generic scoping report for the regional and subregional assessment of biodiversity and ecosystem services (decision IPBES-3/1, annex III), particular challenges found across the Asia-Pacific region include climate change (particularly sea-level rise, increased intensity of extreme storm events, ocean acidification and glacier retreat), population growth, poverty, human consumption of natural resources, land degradation, deforestation, invasive alien species, the impact of trade (including the illegal trade in wildlife and non-timber forest

products), rapid urbanization, coastal pollution, poor governance of natural resources and the impact of altered fire regimes. These factors, together with others that have an impact on biodiversity and ecosystem services, will be considered in the report. There are also positive trends, such as an increase in awareness, forest cover and protected areas and a reduction in the region's carbon footprint. Issues specific to particular Asia-Pacific subregions will also be addressed, for example the interplay between food, water and energy security; biodiversity and livelihoods; waste management; and cooperative management of critical ecosystems shared by more than one country.

B. Geographic area of the assessment

2. The assessment will include countries and territories in five subregions as follows:

<i>Subregions</i>	<i>Countries and territories</i>
Oceania	Australia, Fiji, Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, New Zealand, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu. Pacific island territories of Cook Islands, New Caledonia, American Samoa, ^a Tokelau, ^a French Polynesia, ^a Niue, ^a Guam, ^a Commonwealth of the Northern Mariana Islands, Pitcairn Island ^a and Wallis and Futuna. ^a Oceanic and sub-Antarctic islands in the Pacific region (or Pacific and Indian Ocean regions)
South-East Asia	Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, Timor-Leste and Viet Nam
North-East Asia	China, Democratic People's Republic of Korea, Japan, Mongolia and Republic of Korea
South Asia	Afghanistan, Bangladesh, Bhutan, India, Iran (Islamic Republic of), Maldives, Nepal, Pakistan and Sri Lanka
Western Asia	Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates and Yemen (Arabian peninsula); Iraq, Jordan, Lebanon, State of Palestine and Syrian Arab Republic (Mashreq)

^a Overseas territory.

C. Rationale

3. In the context of the general rationale outlined in the generic scoping report for the regional and subregional assessments of biodiversity and ecosystem services, the present section sets out the rationale specific to the Asia-Pacific region, which hosts some of the world's most important biological, cultural (including indigenous and local knowledge), geographic and economic diversity and has issues common and specific to small island nations such as sea-level rise and invasive alien species. The substantial rate of biodiversity loss in the region has a significant impact on human well-being. The assessment will review the status of biodiversity and ecosystem services pertaining to human well-being in the region through the lens of the sustainable development agenda and the forthcoming sustainable development goals. The

Asia-Pacific region is very diverse socioculturally, typified by rapidly urbanizing nations, wealthy nations and small and large island nations across the Pacific. In view of the contribution of the region's ecosystems to the overall well-being of the population, it is vital to maintain its capacity to provide goods and services. The major policy challenge of many nations in the region is to improve the standard of living in ways that provide equitable access to resources and do not further degrade biodiversity and ecosystem services. As much of the region's biodiversity is outside protected areas, innovative approaches have to be found for the conservation and sustainable use of biodiversity and ecosystem services in multiple-use ecosystems. Intraregional trade places further pressure on biodiversity and ecosystem services in the region by displacing environmental effects from one nation to another. The transboundary management of biodiversity and ecosystem services is a significant policy challenge throughout most of the region.

D. Utility

4. In the context of the general utility outlined in the generic scoping report, this section sets out the utility specific to the Asia-Pacific region. The Asia-Pacific regional assessment will report on the status and trends of biodiversity and ecosystem services and the potential impact of loss across relevant scales in an Asia-Pacific context, using scientific information and other knowledge systems. The assessment will help decision makers and policymakers to develop relevant policy solutions, identify practical management options and tools and best practices for biodiversity and ecosystem services conservation in the Asia-Pacific region, its five subregions and national constituents. It will also devise management approaches for dealing with similar ecosystems and issues that are common across the region. Furthermore, it may assist in mainstreaming biodiversity and ecosystem services. The assessment will take into account the disparate national wealth and human population growth rates in the region to increase relevancy at all scales for all end users and decision makers. The

Asia-Pacific region has the most countries and territories and the highest concentration of local and indigenous communities of any region. The regional assessment report therefore needs to pay particular attention to cultural diversity, the interdependency of national economies in the region, intraregional trade impact, financial flows and existing cross-regional policies, among other factors. In order to be relevant to end users, these factors will be taken into consideration along with data sets and tools scalable to a local or contextual level. The regional assessment report will contribute to achieving the sustainability and conservation goals set out in the Aichi Biodiversity Targets, to be met by 2020, as well as the sustainable development goals that are to come into force in 2015. The Asia-Pacific regional assessment report will be valuable to Governments and to intergovernmental agencies (e.g., the Asian Productivity Organization, the Mekong River Commission), United Nations agencies, conservation organizations, scientific and research bodies (Future Earth, the Asia-Pacific Biodiversity Observation Network), scientists, indigenous and local communities and the rest of civil society. The assessment report will also be of interest to those institutions involved in intraregional trade policy, biodiversity and ecosystem services, and conservation policy and development, such as the Asia-Pacific Economic Cooperation, the Regional Comprehensive Economic Partnership, the World Trade Organization, the Asia-Pacific Network for Global Change Research, the Secretariat of the Pacific Community and the Acid Deposition Monitoring Network in East-Asia. Furthermore, the assessment report will be valuable to funding bodies and economic cooperation organizations that support research involving biodiversity and ecosystem services in the Asia-Pacific region, such as the World Bank, the Global Environment Facility, the Green Climate Fund, the Economic Cooperation Organization and the Asian Development Bank, as well as private investors and philanthropic organizations.

E. Assumptions

5. In the context of the general assumptions outlined in the generic scoping report, the present section sets out the assumptions specific to the Asia-Pacific region. While it is assumed that countries within the Asia-Pacific region will have sufficient experts available and willing to contribute to the assessment report with respect to development, resources, funding, data and knowledge, it is acknowledged that there will be a need for capacity-building across the region. In accordance with the rules of procedure of the Platform, the draft assessment report will be open to peer review by experts, policymakers and stakeholders, including indigenous and local communities. It is assumed that the regional assessment experts will collaborate with national Governments, national experts, research organizations, and local and indigenous communities. It is further assumed that best endeavours will be made to engage Governments, stakeholders and indigenous and local communities represented within the Asia-Pacific expert group. Data, models and scenarios will be adaptable and scalable to develop best management strategies, but there will be significant data gaps across the region.

II. Chapter outline

6. The assessment of the Asia-Pacific region will follow the chapter outline set out in the generic scoping report but will focus in particular on the regionally specific scope set out in section I above.

III. Key data sets

7. Beyond the general issues concerning key data sets outlined in the generic scoping report, this section sets out issues related to key data sets specific to this region. Relevant data sets from ongoing activities drawn from a wide range of sources, including global, regional, national, subnational and local institutions and organizations, will feed into the Asia-Pacific regional assessment. Some examples are national biodiversity and strategic action plans, national reports and data portals (the National Specimen Information Infrastructure (NSII) of China, the Global Biodiversity Information Facility, the Indian Bioresource Information Network, the Group on Earth Observations Biodiversity Observation Network with regional components, the Asia-Pacific Biodiversity Observation Network and subregional or national components, the Japanese Biodiversity Observation Network, and the Korea Biodiversity Observation Network); regional initiatives (the Economics of Ecosystems and Biodiversity for Southeast Asia); regional research institutes (Bioversity International (Asia Pacific Oceania division), the Ocean Biogeographic Information System, the World Resources Institute, the CGIAR Consortium for Spatial Information, the International Centre for Integrated Mountain Development, the International Union for Conservation of Nature); government research institutes; and non-governmental organizations. Data sets from published scientific literature and citizen science projects, along with indigenous and local knowledge sources, will also be used within the assessment report.

IV. Strategic partnerships and initiatives

8. Beyond the general issues concerning strategic partnerships and initiatives outlined in the generic scoping report for the regional and subregional assessments of biodiversity and ecosystem services, the present section sets out issues related to strategic partnerships and initiatives specific to the Asia-Pacific region. In order to avoid duplication and identify synergies, the Asia-Pacific regional assessment process will develop strong connections with regionally specific activities of the multilateral environmental agreements such as the Convention on Biological Diversity and the Convention on International Trade in Endangered Species of Wild Flora and Fauna; and with regional bodies such as the Pacific Regional Environment Programme. It would also be useful to build a strategic partnership with the Association of Southeast Asian Nations Centre for Biodiversity and the Centre for International Forestry Research, which publish their own biodiversity assessments. Private and other stakeholders that might support scientific and technical support towards the Asia-Pacific regional assessment report include the Asia-Pacific Economic Cooperation, the South Asia Cooperative Environment Programme, the South Asian Association for Regional Cooperation, the Asian Development Bank, the World Bank, the Economy and Environment Programme for Southeast Asia, the Japan International Cooperation Agency and the Australian Agency for International Development, to name a few institutions that currently support a number of environmental initiatives. Local community networks, such as the Asia Indigenous Peoples Pact, could help to link the Asia-Pacific regional assessment report to local and indigenous communities or help with outreach and network aspects. The assessment will benefit from collaboration with many of the centres of excellence and research hubs based in the region.

V. Operational structure

9. As noted in the generic scoping report, the operational structures best able to deliver the Asia-Pacific regional assessment, including its capacity-building component, will need to be identified. A technical support unit may be established for the region to coordinate the delivery of the regional assessment, working as part of the secretariat.

VI. Process and timetable

10. The process and timetable are set out in the generic scoping report for the regional and subregional assessments of biodiversity and ecosystem services.

VII. Cost estimate

11. The cost estimate is presented in the generic scoping report for the regional and subregional assessments of biodiversity and ecosystem services.

VIII. Communications and outreach

12. In addition to what is outlined in the generic scoping report in this regard, it is suggested that national and local governments should be encouraged to translate relevant material from the Asia-Pacific regional assessment report into local languages. The Platform will also engage with the relevant scientific community, stakeholders and policymakers and decision makers through national focal points and a non-exhaustive list of partners, including centres of excellence (e.g., the Asia Pacific Association of Agricultural Research Institutions), research and academic institutions (the Institute for Global Environmental Strategies, the International Council for Science Regional Office for Asia and the Pacific, the Asia Pacific Institute of Research and the Asia Pacific Energy Research Centre, among others), international organizations, local non-governmental organizations and scientific networks.

IX. Capacity-building

13. As noted in the generic scoping report, capacity-building activities will be supported by the work programme of the Platform as implemented by the capacity-building task force. This would help strengthen the linkage between the science and indigenous and local knowledge components of the regional assessment. The task force on capacity-building will highlight priority issues to be addressed at the subregional level.

Annex VII

Scoping for a regional assessment on biodiversity and ecosystem services for Europe and Central Asia (deliverable 2 (b))

I. Scope, geographic area, rationale, utility and assumptions

A. Scope

1. Within the scope outlined in the generic scoping report for the regional and subregional assessments of biodiversity and ecosystem services, (decision IPBES-3/1, annex III), the key policy-relevant questions concern options and opportunities with regard to biodiversity and ecosystem services and their role for human well-being. The assessment will examine the opportunities for sectoral policies and policy instruments; managing production, consumption and economic development; and ecological infrastructures and ecological technologies. It will explore opportunities to promote food security, economic development and equality while avoiding land and aquatic degradation and conserving cultural landscapes. The Europe and Central Asia assessment will focus in particular on the following questions:

(a) How can ecosystems that provide ecosystem services, such as those underpinning ecosystem-based adaptation to climate change and nature-based solutions to sustainable development, be protected through investments, regulations and management regimes for terrestrial, freshwater, coastal and marine systems?

(b) What are the effects of production, consumption and economic development on biodiversity and ecosystem services and their contribution to human wellbeing? Major links with other regions will be assessed;

(c) How can sectoral policies and new policy instruments make use of opportunities arising from the contribution of biodiversity and ecosystem services to human well-being?

B. Geographic area of the assessment

2. For the purpose of the regional assessment, three subregions have been identified that include the following countries and territories, including marine and coastal areas:

<i>Subregions</i>	<i>Countries and territories within the Europe and Central Asia region</i>
Central and Western Europe	Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia, the former Yugoslav Republic of Macedonia and Turkey (Group of Central European countries)
	Andorra, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Liechtenstein, Luxembourg, Malta, Monaco, Netherlands, Norway, Portugal, San Marino, Spain, Sweden, Switzerland and United Kingdom of Great Britain and Northern Ireland (Group of Western European countries)
Eastern Europe	Armenia, Azerbaijan, Belarus, Georgia, Republic of Moldova, Russian Federation and Ukraine
Central Asia	Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan

C. Rationale

3. In the context of the general rationale outlined in the generic scoping report, the present section sets out the rationale specific to the region. The assessment will address a number of international and regional issues of high priority as embodied in global and regional agreements, in national policy and in societal expectations. Important priorities include the issues covered by the four thematic assessments in the work programme of the Platform (pollinators, pollination and food production; land degradation and restoration; sustainable use and conservation of biodiversity and strengthening capacities and tools; and invasive alien species), in addition to sustainable agriculture, sustainable forestry, sustainable fisheries and biodiversity in areas sensitive to climate change. The assessment of opportunities for mainstreaming through sectoral policies and new policy instruments (such as certification, labelling, no net loss, offsetting, green infrastructure, national accounting, payment for environmental services schemes and social valuation) will be facilitated by Europe's longstanding policy experience, which puts the region in an excellent position to assess policy impacts with a view to learning lessons and resolving issues relating to trade-offs and associated costs, including the costs of policy inaction. An assessment of the European and Central Asian region will allow for the exploration of several transboundary issues, including water quality and quantity,

fisheries, climate change, air pollution and migratory species. It should raise awareness of shared environmental issues and contribute to the better articulation of policy across the entire region.

D. Utility

4. In the context of the general utility outlined in the generic scoping report, the present section sets out the utility specific to the region. The assessment will contribute to building multiple evidence bases (academic, indigenous and local knowledge, citizen science, etc.) for the links between biodiversity, ecosystem services and human well-being. It will explore options for effective management and policy interventions at appropriate levels of governance, including policy instruments such as environmental accounting systems, payments for ecosystem services and measures of growth that account for natural capital. The assessment will also help to identify capacity-building needs across subregions. The assessment will support parties in implementing global, regional and subregional agreements (see appendix). Furthermore, the assessment will also be relevant to the European Union's ongoing efforts to map and assess the state of ecosystems and their services in national territory (the Mapping and Assessment of Ecosystems and their Services (MAES) initiative). The assessment could also support the implementation of national legislation and, at the national and subnational levels, will provide clear standards, methods and resources (data information and knowledge; strategic partner list; mechanisms for including indigenous and local knowledge) for national and local government to support sustainable development and improve human well-being through maintaining and improving ecosystem services.

E. Assumptions

5. In the context of the general assumptions outlined in the generic scoping report, the present section sets out the assumptions specific to the region. The Europe and Central Asia regional assessment will draw on and, where possible and appropriate, contribute to ongoing and planned national and regional assessments, including those undertaken by the Economics of Ecosystems and Biodiversity initiative and the European Union MAES initiative to value some services and integrate them into accounting systems by 2020. In terms of environmental protection and the sustainable use of ecosystem services, there is substantial subregional variation in the region regarding, for example, the effects of economic development, which in some Central European, Eastern European and Central Asian countries is growing faster than in many Western European countries. Attention will be given to the different political and economic historical developments within and across the subregions. Differences between subregions in terms of their economic and political development offer the opportunity to transfer lessons between subregions. For the Western and Central Europe subregion, the policy opportunities offered by a common governance system are of particular interest. For the Central Asia subregion, opportunities for policies and institutional arrangements for the recovery of degraded terrestrial and aquatic ecosystems and for managing transboundary ecosystems are of particular interest.

II. Chapter outline

6. The assessment of the European and Central Asian region will follow the chapter outline set out in the generic scoping report (decision IPBES-3/1, annex III) but will, within that outline, focus on the regionally specific scope set out in the three questions identified in section I above.

7. In addition, in chapter 2, on nature's benefits to people and quality of life, analysis will also address the impact of ecosystem services on society and how innovation and nature-based solutions are influencing the job market in the region. The chapter will also examine the multiple values of biodiversity. In chapter 4, on direct and indirect drivers of change in the context of different perspectives on quality of life, emphasis will be placed on the regional and subregional aspects of land degradation and restoration as well as on invasive alien species and sustainable intensification of agriculture. Fire and floods will be included as drivers in the European and Central Asian assessment owing to their growing importance in the region. Chapter 5, on integrated and cross-scale analysis of interactions of the natural world and human society, will in particular consider issues that include increasing demand for biological raw materials in a bio-economy context (bioenergy, fibres and organic matter), climate change, food provisioning from land and water, and water availability. It will assess how the value of biodiversity and associated ecosystem services influences indirect drivers and how the integration of such values into national and local development planning and accounting may help address Aichi Biodiversity Target 2. In chapter 6, on options for governance, institutional arrangements and private and public decision-making across scales and sectors, the assessment will in particular consider future challenges for sustainable use and conservation in key sectors in the European and Central Asian region such as nature protection, agriculture, forestry, fisheries, water management, spatial planning, energy (including bioenergy), tourism, infrastructure and incentives

(including subsidies harmful to biodiversity as well as positive incentives for the conservation and sustainable use of biodiversity).

III. Key data sets

8. Beyond the general issues related to key data sets outlined by the generic scoping report, the present section sets out issues related to key data sets specific to the region. The assessment will draw on a wide variety of data sets addressing the specific components of the conceptual framework. Relevant data sets could include those arising from ongoing and planned activities, such as the European Union MAES initiative referred to above, as well as those from a wide range of sources, including global, regional and national institutions and organizations, those from research projects, such as earth observation data, and analysis of the scientific literature. Data and information specific to the region might be retrieved from data centres such as the European Environment Agency, the Joint Research Centre, Eurostat, the Organization of the Black Sea Economic Cooperation, the Economic Cooperation Organization and relevant centres collecting earth observation data. They will also be collected from relevant research networks and projects.¹⁷ Other entities, including the Global Biodiversity Information Facility, the Encyclopaedia of Life, the Group on Earth Observations Biodiversity Observation Network and the International Union for Conservation of Nature also hold or provide access to important data and knowledge relevant to the region. Strategic partnerships with data holders will be developed and links to ongoing knowledge generation initiatives and activities established. Data availability for the region is variable with, in general, wider access to environmental data in Western and Central Europe than in Eastern Europe and Central Asia. Lack of data accessibility and compatibility in some countries of Eastern Europe and Central Asia is a key concern to be addressed by the Platform. Special efforts will be made to involve the data and information from indigenous and local knowledge and traditional ecological knowledge holders.

IV. Strategic partnership and initiatives

9. Beyond the general issues related to strategic partnerships and initiatives outlined in the generic scoping report, the present section sets out issues related to strategic partnerships and initiatives specific to the region. Strategic partnerships, whether formal or informal, with the above-mentioned data holders will be developed, and links to ongoing knowledge generation initiatives and activities established. Strategic partnerships should also be established with organizations working with indigenous and local knowledge systems, through societies and associations working with indigenous and local knowledge holders within the region. These include, for example, the Arctic Council, the Arctic Council Indigenous Peoples Secretariat and the European Citizen Science Association. The Pan-European Biodiversity Platform will contribute to the Europe and Central Asia assessment, including through the provision of technical support.

V. Operational structure

10. As noted in the generic scoping report for the regional or subregional assessments of biodiversity and ecosystem services, operational structures will need to be identified that will best deliver the assessment, including related capacity-building. Technical support units may be established to coordinate the delivery of this assessment, working as part of the secretariat. The operational structure will need to take into account existing initiatives and organizations, such as the MAES working group, the European Environment Agency and the pan-European Biodiversity Platform supported by the United Nations Environment Programme. The MAES initiative will be directly supported by ESMEALDA, a coordination support action funded under Horizon 2020, and indirectly by the knowledge generated in several European Union projects (such as OPERAs and OpenNESS) funded under the seventh Framework Programme for Research and Technological Development (FP7) and by knowledge generated by European Union Horizon 2020 projects, including the European Research Area on biodiversity and ecosystem services (BiodivERsA2 and 3), co-funded by the European Union and its member States. The organizational structure will also need to help facilitate cooperation between different subregions.

¹⁷ Relevant research projects and networks include Biodiversity Multi-Source Monitoring System – from Space to Species, Multi-scale Service for Monitoring NATURA 2000 Habitats of European Community Interest, Future Earth, European Biodiversity Observation Network, Operationalization of Natural Capital and Ecosystem Services, Ecosystem Science for Policy and Practice, the Ecosystem Services Partnership and A Long-Term Biodiversity, Ecosystem and Awareness Research Network.

VI. Process and timetable

11. The process and timetable are set out in the generic scoping report for the regional and subregional assessments of biodiversity and ecosystem services.

VII. Cost estimate

12. The cost estimate is set out in the generic scoping report for the regional and subregional assessments of biodiversity and ecosystem services.

VIII. Communications and outreach

13. It is necessary for this regional assessment to operate using existing formal and informal networks and to work across scales from the global to national and – ideally – subnational levels. The role of the technical support units, regional hubs and centres of excellence, together with the national focal points, is crucial in Central Europe, Eastern Europe and Central Asia. In the Central and Eastern Europe and Central Asia subregions, communications and outreach will include capacity-building on forming and sustaining networks, since the current culture of network building is less developed than in Western Europe. Any communications and outreach will need to be consistent with the Platform's communications and outreach strategy.

IX. Capacity-building

14. It is acknowledged that capacity-building needs vary widely within the region, not only from one subregion to another, but even from country to country. It will therefore be necessary to carefully assess capacity-building needs and promote and facilitate capacity-building activities that address those needs. For example, in parts of the region there is an urgent need to improve access to the data, information and knowledge that will help underpin assessment processes. In other parts of the region there is an urgent need for increased experience in developing and using tools such as scenarios and indicators. During implementation of the assessment it will be important to share experience as widely as possible, potentially through fellowship and staff exchange programmes. This should be focused on both individuals and institutional capacity.

Appendix**Examples of potentially relevant regional and subregional agreements**

1. Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention)
2. Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention)
3. Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention)
4. Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention)
5. Convention on the Protection of the Alps (Alpine Convention)
6. Convention on the Protection and Use of Transboundary Watercourses and International Lakes
7. European Landscape Convention and the European Union Birds Directive
8. European Union Common Agricultural Policy
9. European Union Common Fisheries Policy
10. European Union Habitats Directive
11. European Union Marine Strategy Framework Directive
12. European Union Nitrates Directive
13. European Union Water Framework Directive
14. Framework Convention on Protection of the Marine Environment of the Caspian Sea (Tehran Convention)
15. Framework Convention on the Protection and Sustainable Development of the Carpathians

16. Interstate Commission for Sustainable Development
17. Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention)

Annex VIII

Scoping for a thematic assessment of land degradation and restoration (deliverable 3 (b) (i))

I. Introduction

1. At the second session of the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, held in Antalya, Turkey, from 9 to 14 December 2013, member States approved the initiation of scoping for a thematic assessment of land degradation and restoration. Accordingly, a scoping document was developed by an expert group in accordance with the procedures for the preparation of the Platform's deliverables (IPBES-2/3, annex). The expert group met in Beijing from 9 to 11 September 2014, thanks to generous in-kind support received from China. The present note constitutes the scoping document developed by the expert group. Additional information on the work of the expert group is available in document IPBES/3/INF/18.

II. Scope, rationale, utility and assumptions

A. Scope

2. For the purposes of this thematic assessment, "degraded land" is defined as land in a state that results from persistent decline or loss of biodiversity and ecosystem functions and services that cannot fully recover unaided within decadal time scales. "Land degradation", in turn, refers to the many processes that drive the decline or loss of biodiversity, ecosystem functions or services and includes the degradation of all terrestrial ecosystems. The assessment will include associated aquatic ecosystems that are impacted by land degradation. "Restoration" is defined as any intentional activity that initiates or accelerates the recovery of an ecosystem from a degraded state. The term "rehabilitation" is used to refer to restoration activities that may fall short of fully restoring a biotic community to its pre-degradation state, including natural regeneration and emergent ecosystems. This assessment will include eight chapters, the first four of which will report on the benefits of avoiding degradation and restoring degraded land for human well-being and quality of life (chapter 1); concepts and perceptions of land degradation and restoration, according to different worldviews, including those of indigenous and local people (chapter 2); indirect and direct drivers of degradation processes (chapter 3); the nature and extent of land degradation processes and the resultant loss or decline in biodiversity and ecosystem structure and functioning (chapter 4); and the impact of changes in land degradation and restoration on the delivery of nature's benefits to people and the impact of such changes on the quality of life (chapter 5). The following two chapters will explore the wide range of responses to land degradation by developing and applying a broad framework to assess the effectiveness of interventions intended to prevent, halt, reduce and mitigate processes of land degradation and to rehabilitate or restore degraded land (chapter 6) and a range of development scenarios, including the consideration of different response options and their implications for land degradation regionally and globally (chapter 7). The final chapter (chapter 8) will focus on providing decision support and policy relevant guidance to decision makers at all levels who are responsible for addressing land degradation problems and implementing restoration strategies. The assessment will seek to involve all relevant stakeholders from its inception. The structure of the assessment is based on the conceptual framework adopted by the Plenary of the Platform in its decision IPBES-2/4.

B. Geographic coverage of the assessment

3. The assessment will encompass all the terrestrial regions and biomes of the world, recognizing that land degradation drivers and processes can vary in severity within regions and countries as much as between them. The assessment will encompass the full range of human-altered systems, including but not limited to drylands, agricultural and agroforestry systems, savannahs and forests and aquatic systems associated with these areas.

C. Rationale

4. Land degradation, which is primarily a direct or indirect result of human activities, is a major problem on every continent except Antarctica. The total human cost of land degradation is not known, but the Food and Agriculture Organization of the United Nations (FAO) estimates the economic impact at more than \$40 billion annually. Building on the work of the Rio conventions

(the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, the United Nations Framework Convention on Climate Change and the Convention on Biological Diversity), and the United Nations Conference on Sustainable Development (Rio+20), the goals of halting and reversing land degradation and decoupling economic growth from environmental degradation have been proposed as part of the sustainable development goals. These goals include Convention on Biological Diversity Aichi Biodiversity Targets 5, 7, 14 and 15 and the ongoing process for developing a post-2015 development agenda. In 2011, in recognition of the benefits to people of restoring degraded land, world leaders endorsed the “Bonn Challenge”, a global effort to restore 150 million hectares of deforested and degraded land by 2020. As a first step towards meeting that goal, there is a clear need to assess the extent, causes and processes of land degradation and the consequences for biodiversity and people, as well as evaluating responses to the restoration and rehabilitation of degraded land and the avoidance of future degradation and the benefits that this will deliver to people.

D. Utility

5. This expert-led assessment will provide the information and guidance necessary to support stakeholders working at all levels to reduce the negative environmental, social and economic consequences of land degradation and to rehabilitate and restore degraded land to aid the recovery of nature’s benefits to people. It will draw on information from scientific, indigenous and local knowledge systems to increase awareness and identify areas of concern. It will help to identify potential solutions to the challenges posed by land degradation, informing decision makers in public, private and civil society sectors. It will provide a framework for understanding, monitoring and taking action to halt and reverse land degradation in order to support decision-making at all levels and it will identify critical knowledge gaps and priority areas for new research and investment to enhance capacity in the sustainable management of land and biodiversity and their benefits to people.

E. Assumptions

6. The assessment will be based on both science and other knowledge systems, including indigenous and local knowledge systems. Land degradation is recognized as predominantly anthropogenically driven and as such is ultimately a consequence of the activities of institutions, governance and other indirect drivers (sociopolitical, economic, technological and cultural factors). The restoration of degraded land will be evaluated in its broadest sense, from partial rehabilitation to full restoration of the system to its pre-degradation state. Addressing direct and indirect drivers of degradation, promoting restoration and designing and implementing sustainable land management systems require a participatory process involving the co-production of knowledge with relevant and diverse stakeholders. The assessment will take account of both the negative impact of land degradation and the benefits to people of preventing, halting, reducing and mitigating degradation and restoring degraded land.

III. Chapter outline

7. The assessment will be presented in a summary for policymakers and an eight-chapter report, as set out below. An introduction will briefly review the rationale, utility and assumptions of the assessment, as well as the approach adopted and the rationale for the chapter sequence. An executive summary will present key findings and policy-relevant conclusions.

8. **Chapter 1. Benefits to people from avoidance of land degradation and restoration of degraded land.** This chapter will present a brief summary of the benefits to human well-being and quality of life that can be achieved by the halting, reduction and mitigation of degradation processes as well as the restoration of degraded land. The chapter will draw on information and insights from all other chapters, highlighting examples of success stories of how land conservation and restoration measures have helped to deliver improvements in livelihoods, reduce poverty and strengthen the long-term sustainability of land use and the extraction of natural resources.

9. **Chapter 2. Concepts and perceptions of land degradation and restoration.** This chapter will focus on assessing and comparing differing concepts and perceptions of land degradation and restoration, stemming from both science and other knowledge systems, including indigenous and local knowledge. The chapter will also review concepts and approaches used to assess the diversity of land degradation processes, the status of ecosystems and the impact thereon, as well as concepts and approaches used to describe different responses, including rehabilitation and restoration.

10. **Chapter 3. Direct and indirect drivers of land degradation and restoration.** This chapter will assess how land degradation and restoration are the result of multiple drivers, involving both direct anthropogenic and natural factors and interactions between them, as well as underlying indirect drivers. Direct drivers of degradation (e.g., unsustainable levels of biomass extraction and extractive industries) can result directly in degraded land, including reduction in the productivity of land, or in processes such as soil erosion due to unsustainable land management techniques, and natural drivers, such as floods, wind and drought, that result in land degradation. Direct drivers of restoration, encompassing both passive and active approaches, can result in either halting or reducing degradation and in the recovery of biodiversity and ecosystem functions. Indirect drivers of land degradation and restoration are related to institutions and governance systems, as well as social, cultural, technological and economic factors, including poverty, which underpin direct drivers, at the local to global levels. The chapter will assess the extent and severity of different drivers and how they vary within and between different biomes, regions and land-use systems around the world. The assessment of direct drivers will include anthropogenic drivers at global, national, regional and local scales, including human-driven climate change, as well as natural drivers and interactions between anthropogenic and natural drivers. Particular attention will be paid to climate change and its interaction with other anthropogenic drivers of land degradation, including interactions between processes of land degradation and extreme weather events.

11. **Chapter 4. Status and trends of land degradation and restoration and associated changes in biodiversity and ecosystem functions.** This chapter will focus on the status and trends of land degradation and restoration in terms of changes in biodiversity and ecosystem functioning, as well as the degradation and restoration processes that result in those changes. Degradation processes include soil erosion, contamination, compaction, sealing, sedimentation, loss of organic matter, soil and water salinization, degradation of freshwater systems, invasion of alien species, changes in natural fire regimes and pollution. Degradation can also include landscape-scale processes such as changes in ecological connectivity, land cover and land use and changes in land management practices. Restoration processes include the avoiding, halting and reversing of degradation processes as well as the recovery of biodiversity and ecosystem functions. The chapter will assess levels of land degradation and restoration with regard to the type, extent and severity of changes in both biodiversity and ecosystem structure and functioning in different biomes and under different land-use and management systems. Changes in biodiversity include changes to both wild biodiversity and agrobiodiversity, including both above-ground and below-ground biodiversity. Changes in ecosystem structure and functioning include aspects such as primary productivity, nutrient cycling and the provision of habitat for species. Particular attention will be given to understanding system resilience (capacity to recover systems structure and functions following a perturbation), including the potential for thresholds and sudden changes in key attributes of biodiversity and critical ecosystem functions.

12. **Chapter 5. Land degradation and restoration associated with changes in ecosystem services and functions and human well-being and good quality of life.** This chapter will focus on the impact of land degradation and restoration on changes to the delivery of nature's benefits to people and the resultant impact on quality of life. The chapter will assess land degradation associated with the loss of benefits to people including provisioning services, such as food production, quality and quantity of water resources, and availability of raw materials, as well as regulating, cultural services and other aspects of nature, recognizing a diverse conceptualization of the values of nature. The chapter will analyse changes in benefits to people in terms of the relative contribution of biodiversity and ecosystem structure and functioning and that of anthropogenic assets (e.g., technologies, knowledge) applied by people in the co-production of benefits. The impact on the diverse dimensions of a good quality of life will include the impact on health, poverty, income-generating opportunities, meaningful livelihoods, the equitable distribution of natural resources and rights and values considered important in different cultures. The chapter will consider the diverse costs of land degradation and benefits of restoration for people, including the overall economic and non-economic costs and benefits, encompassing those that are associated with the area of degraded or restored land itself, as well as costs or benefits borne by people in other areas who are affected by degraded or restored sites. For both land degradation and restoration the chapter will examine the type, extent and severity of these changes in different social-ecological systems in different land cover and land management systems, including their implications for social and ecological stability and resilience and cultural integrity.

13. **Chapter 6. Responses to avoid land degradation and restore degraded land.** This chapter will develop a framework for assessing the effectiveness of existing interventions to prevent, halt, reduce and mitigate the processes of land degradation and to rehabilitate and restore degraded land through the recovery of biodiversity and ecosystem structure and functioning and their benefits to people. The chapter will assess how past and current responses to degradation problems and

restoration approaches vary according to context, including the type and severity of land degradation and underlying direct and indirect drivers, as well as the consequences of land degradation and the restoration for nature's benefits to people and quality of life. The chapter will analyse the effectiveness of addressing the indirect causes of land degradation and restoration (institutions, governance systems and other indirect drivers), as compared to efforts to address direct drivers or anthropogenic assets (better techniques, access to training). The chapter will assess the relative success or failure, as well as the potential risks, of different institutional, governance and management response options against a range of social, cultural, economic, technological and political criteria. It will explore how responses to prevent land degradation through sustainable use compare with efforts to deal with its effects through adaptation and restoration. The chapter will also assess different institutional, policy and governance responses based on the type of policy instrument used, as well as support given to research and technology development, institutional reform and capacity-building.

14. **Chapter 7. Scenarios of land degradation and restoration.** This chapter will explore the implications of a range of plausible development scenarios, including the adoption of different response options across multiple scales, and their implications for land degradation and restoration globally, including impacts on human well-being and quality of life and possible trade-offs between social, economic and environmental objectives. Scenarios will be developed using information derived from the assessment and work from across the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, motivated by a systematic review of other scenario exercises of this type, including the Platform's ongoing methodological assessment of scenario analysis and modelling of biodiversity and ecosystem services, to be released at the end of 2015. The chapter will reveal the variation in plausible land degradation and restoration futures that depend on choices (with associated social and economic implications) made at the landscape, national, subregional, regional and international scales to address indirect and direct drivers and introduce new mechanisms for avoiding land degradation, mitigating its impacts and rehabilitating and restoring degraded sites.

15. **Chapter 8. Decision support to address land degradation and support restoration of degraded land.** This chapter will consolidate and rationalize information necessary to support evidence-based decision-making and institution-building for policymakers and practitioners responsible for selecting and implementing strategies for addressing land degradation problems and restoring degraded land. The chapter will assess actions necessary to develop institutional competencies in the detection and analysis of land degradation problems and the design, implementation, management and monitoring of response strategies, including data, methods, decision support tools and stakeholder engagement. The chapter will place land degradation problems and potential restoration solutions in the wider policy, socioeconomic and environmental context, emphasizing the importance of institutions, governance and other indirect drivers that are the root drivers of both degradation and restoration. It will consider interactions between land degradation and restoration and other major policy areas such as farming and food, flood risk and water resource management, climate change adaptation and mitigation, invasive species and disease management, biocultural diversity conservation, public health and rural, urban and industrial development.

IV. Key information to be assessed

16. The information to be assessed will be drawn from relevant articles, books, regional, national and international assessments, reports by and data from Governments, United Nations bodies and national and international non-governmental organizations and indigenous and local knowledge in accordance with the recommendations of the task force on indigenous and local knowledge,¹⁸ including knowledge that is not available in written form, and in accordance with the procedures for the preparation of Platform deliverables.

V. Operational structure

17. The operational structure will consist of a technical support unit (comprising one full-time equivalent Professional staff member). Two co-chairs, 80 authors and 16 review editors will be selected by the Multidisciplinary Expert Panel, in accordance with the procedures for the preparation of the Platform's deliverables.

18. The head of the technical support unit, the two co-chairs, one representative of the Panel and one representative of the Bureau will hold a management meeting as a first step towards operationalizing the assessment.

¹⁸ Established by the Plenary by decision IPBES-2/5.

VI. Strategic partnership and initiatives

19. The land degradation assessment will identify as possible partners organizations that can contribute their data and knowledge; provide in-kind support; act as clients and users of the assessment; and provide assistance at various stages, including by helping to review the assessment. The partnerships entered into will mostly be informal, but a limited number of strategic partnerships may be established. Collaboration will be developed, in particular with the United Nations Convention to Combat Desertification, especially its science-policy interface and its Committee on Science and Technology, as a key user of and a key contributor to the assessment on land degradation. Collaboration should also be developed with the Global Soil Partnership and its Intergovernmental Technical Panel on Soils, which is to produce a first report on the state of the world's soil resources by 5 December 2015.

VII. Process and timetable

20. The proposed process and timetable for preparing the assessment report, including actions, milestones and institutional arrangements, is set out below.

<i>Date</i>	<i>Actions and institutional arrangements</i>
2015	
First quarter	Plenary at its third session approves the conduct of the land degradation and restoration assessment coupled with the regional assessments of biodiversity and ecosystem services, asks for offers of in-kind technical support for the assessment and requests the Bureau and the secretariat to establish the necessary institutional arrangements to put in place technical support The Chair, through the secretariat, requests nominations from Governments and other stakeholders of experts to prepare the assessment report
Second quarter	Secretariat compiles lists of nominations The Panel selects the assessment co-chairs, coordinating lead authors, lead authors and review editors, using the approved selection criteria set out in decision IPBES-2/3 (IPBES/2/17, annex) Meeting of the Management Committee (co-chairs, head of the technical support unit, and MEP/Bureau members) to select remaining expert team and respective roles (i.e., coordinating lead authors, lead authors and review editors) Selected nominees contacted, gaps filled and list of co-chairs, authors and review editors finalized
Second/early third quarter	First author meeting with 80 participants: co-chairs, coordinating lead authors and lead authors, plus Panel/Bureau members. This group of 80 includes the 20 experts on land degradation involved in the regional assessments (five experts for each of the four regional assessments)
2016	
First quarter	First drafts of chapters prepared (6–7 months) and sent to secretariat (technical support unit) Compilation of chapters into first draft (6 weeks)
Second quarter	First draft of collated regional and subregional land degradation assessments sent for expert review (6 weeks) Collation of review comments by secretariat technical support unit for first draft sent to authors (2 weeks)
Second/early Third quarter	Second author meeting coupled with second author meetings of the regional assessments (80 participants, including the 20 authors involved in the regional assessments): : co-chairs, coordinating lead authors, lead authors and review editors)
Third quarter	Second drafts of chapters and first draft of summary for policymakers prepared (5–6 months)
2017	
First quarter	Second draft of the assessment and first draft of the summary for policymakers sent for government and expert review (2 months)
First quarter	Collation of review comments for second draft of the assessment and first draft of the summary for policymakers sent to authors (2 weeks)
Second quarter	Third author meeting coupled with third author meetings of the regional assessments (4 x 30 participants: co-chairs, coordinating lead authors and review editors and Panel/Bureau members)
Third quarter	Final text changes to the assessment and the summary for policymakers (3 months)
Third quarter	Translation of the summary for policymakers into the six official languages of the United Nations (1 month)
Fourth quarter	Submission of the assessment, including the translated summary for policymakers, to Governments for final review prior to Plenary session (6 weeks)

Fourth quarter 2018	Final government comments on the summary for policymakers for consideration by authors prior to next Plenary session
January (To be confirmed)	Plenary to approve/accept the land degradation and restoration assessment, including the summaries for policymakers

VIII. Cost estimate

21. The table below shows the estimated cost of conducting and preparing the assessment report.

<i>Year</i>	<i>Cost item</i>	<i>Assumptions</i>	<i>Estimated costs (United States dollars)</i>
2015	Meeting of co-chairs and secretariat/technical support unit	Meeting costs (1/2 week, 5 participants, in Bonn)	0
		Travel and DSA (3 x \$3,750)	11 250
	First author meeting (80 participants: co-chairs, coordinating lead authors and lead authors)	Meeting costs (1 week, 80 participants) (25 per cent in kind)	18 750
		Travel and DSA (64 x \$3,750)	240 000
Technical support	1 full-time equivalent professional position (50 per cent in kind)	75 000	
2016	Second author meeting (participants: co-chairs, coordinating lead authors and review editors)	Meeting costs (1 week, 4 x 15 participants) (25 per cent in kind)	0
		Travel and DSA (48 x \$3,750)	144 000
	Joint coordination meeting of co-chairs and technical support unit together with co-chairs and technical support units of other thematic assessments	Meeting costs (1 week, 5 participants)	0
		Travel and DSA (3 x \$3,750)	11 250
Technical support	1 full-time equivalent professional position (50 per cent in kind)	75 000	
2017	Third author meeting (30 participants: co-chairs, coordinating lead authors, review editors)	Meeting costs	0
		Travel and DSA (75 x \$3,750)	90 000
	Technical support	1 full-time equivalent professional position (50 per cent in kind)	75 000
		Travel and DSA (3 x \$3,750)	11 250
2018	Dissemination and outreach	Translation of summary for policymakers into the six official languages of the United Nations, publication and outreach	117 000
Total			868 500

IX. Communications and outreach

22. The assessment report and its summary for policymakers will be published and the summary for policymakers will be made available in the six official languages of the United Nations. The report and the summary will be made available on the Platform's website (www.ipbes.net). Dissemination will target all Platform stakeholders and will be adapted to the specific needs of different users, following the agreed Platform communications and outreach strategy.

X. Capacity-building

23. Capacity-building activities will be organized in accordance with the implementation plan of the task force on capacity-building, in such areas as implementation of the fellowship programme.

