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**Plenary of the Intergovernmental Science-Policy
Platform on Biodiversity and Ecosystem Services
Second session**

Antalya, Turkey, 9–14 December 2013

Item 4 (a) of the provisional agenda*

**Initial work programme of the Platform:
work programme 2014–2018**

**Initial scoping for the thematic assessment of agriculture, food
security, biodiversity and ecosystem services**

Note by the secretariat

I. Introduction

1. Recognizing that it would be necessary to move forward with the work programme for 2014–2018 following its approval by the Plenary of the Intergovernmental Science-Policy Platform for Biodiversity and Ecosystem Services at its second session, the Bureau and the Multidisciplinary Expert Panel agreed to prepare, for consideration by the Plenary at that session, a number of initial scoping documents based on the prioritization of requests, suggestions and inputs put to the Platform and the deliverables set out in the draft work programme (IPBES/2/2). The present note sets out the initial scoping for a proposed thematic assessment of agriculture, food security, biodiversity and ecosystem services. It has been developed in accordance with the draft procedures for the preparation of the Platform's deliverables (IPBES/2/9).

II. Scope, rationale and utility

A. Scope

2. Is a “sustainable intensification” approach an effective policy option for addressing global food security needs without compromising ecosystem services, specifically biodiversity?
3. The potential pressure on land and water resources as demand for agricultural productivity increases to feed a world of 9 billion people means that policies must balance the productive capacity of land and water with their intrinsic value as providers of ecosystem services. The proposed assessment will build on previous documents that have summarized the state of knowledge regarding this issue and will specifically address the policy context.

* IPBES/2/1.

4. Policy options related to sustainable agricultural production and biodiversity present the opportunity to develop new technology (including new germplasm) that could increase resilience in agricultural systems, notably in response to climatic variability and change. At the same time, agricultural practices can have an impact on biodiversity and the ecosystem services that it provides. The proposed assessment would directly address this duality.

B. Rationale

5. The pressure on terrestrial and aquatic ecosystems to produce food must be counteracted by practices that maintain and value the ecosystem services that come from these life-support systems. While assessments and reports have summarized the state of knowledge in this area, this knowledge has not been put to use sufficiently, for example to develop effective policies. The proposed assessment would add value to the current literature by addressing the dearth of policies and, more importantly, by expanding the consideration of ecosystem services in addition to biodiversity.

C. Utility

6. A 2011 report by the Food and Agriculture Organization of the United Nations, entitled *Biodiversity for Food and Agriculture*, reviewed the literature on, and the complexities of, this topic from a research perspective and identified several policy needs. The proposed assessment will focus on these policy issues, adding a review of evidence from indigenous and local knowledge systems, with a more explicit consideration of ecosystem services, using a regional approach and through the filter of the four functions of the Platform, relating to the identification of knowledge gaps, capacity-building needs, links to decision makers and the provision of tools and guidelines for policymaking.

III. Chapter outline

7. It is contemplated that the proposed thematic assessment will be presented in a nine-chapter report, as set out below.

8. Chapter 1 will introduce relevant concepts and a short overview of the state of the art of various knowledge systems and the various production systems used across the globe. Plant and animal agricultural systems, including aquaculture, will be discussed.

9. Chapter 2 will discuss the relationship between food production and ecosystem services, in terms of both synergies and competition. There will be some overlap in this chapter with the proposed thematic assessment on land degradation and restoration (see IPBES/2/16/Add.2) and the proposed fast-track assessment on pollination and food production (see IPBES/2/16/Add.1).

10. Chapter 3 will address the role of regulating ecosystem services in food security, including links to biodiversity, the landscape context, water quality and quantity, health, and economic and social dimensions. Topics discussed will include pollination (the discussion of which will overlap with the proposed fast-track assessment on pollination and food production (see IPBES/2/16/Add.1)), the importance of ecosystem services, the drivers of biodiversity (more wild bees are needed instead of honey bees), economic issues and the role of pollination in rural society. Biological control and soil decomposition are other important services that will be discussed.

11. Chapter 4 will examine drivers of agricultural intensification and land use, including rural-urban linkages, land tenure, changing demands and international trade and its potential impacts on ecosystem services. The role and importance of aquaculture will be included, with a consideration of freshwater and marine systems. These will be examined at the regional level.

12. Chapter 5 will look at socioeconomic aspects of the ecosystem services under discussion, including how to maintain rural and indigenous societies and their knowledge for the benefit of future generations and how cultural ecosystem services (e.g., people's affection for the land and its species) can contribute to sustainable rural societies.

13. Chapter 6 will discuss living with uncertainty posed by global climate change and risk adaptation and mitigation in agricultural systems.

14. Chapter 7 will examine the promise of new approaches, including but not limited to perennialization and enhanced nitrogen fixation. This would include the development of a concept of an ecosystem services market that a landowner/farmer could access to increase the value of his or her activities. Other instruments are needed, such as better systems of control, regulation, incentives and de-incentives, as is better governance. This chapter would be illustrated by country case studies on matters such as water management in Costa Rica, community forests in Mexico and water markets in the United States of America.

15. Chapter 8 will identify science, technology and information needs on the basis of gaps identified in previous chapters.

16. Chapter 9 will discuss the creation of a framework for sustainable agricultural intensification that actively considers ecosystem services, including biodiversity and water. This will include a consideration of policy options and decision-support tools.

IV. Process and timetable

17. The process for undertaking the proposed thematic assessment and the timetable for carrying it out are outlined in the following table.

<i>Time frame</i>		<i>Actions</i>
2013	Fourth quarter	The Plenary reviews and approves the initial scoping exercise prepared by the Multidisciplinary Expert Panel and requests the Panel and the Bureau, within an agreed cost envelope, to proceed with a full assessment after the detailed scoping study (14 December 2013)
	Fourth quarter	The Panel, through the secretariat, requests nominations from Governments and other stakeholders of experts to assist with the scoping process (16 December 2013-31 January 2014)
2014	First quarter	The Panel, via e-mail and teleconferences, selects experts for the scoping study using the approved selection criteria (see IPBES/2/9) (1-14 February 2014)
	Second quarter	The Panel and the Bureau oversee the detailed scoping exercise, including outline, costs and feasibility (3 months). A scoping meeting is held at the beginning of April 2014
	Second quarter	The detailed scoping report is sent to members of the Platform and other stakeholders for review and comment for two weeks in the second half of April 2014
	Second quarter	On the basis of the results of the detailed scoping exercise and comments received from members of the Platform and other stakeholders, the Panel and the Bureau decide whether to proceed with the assessment, assuming that it can be conducted within the budget envelope approved by the Plenary, in the first half of May 2014
	Second quarter	The Panel, through the secretariat, requests nominations from Governments and other stakeholders of experts to prepare the report. Nominations are to be submitted by the end of June 2014 (1.5 months)
	Third quarter	The Panel selects the report co-chairs, coordinating lead authors, lead authors and review editors using the approved selection criteria (see IPBES/2/9) (1 July–15 August 2014) (1.5 months)
	Third/fourth quarters	The report co-chairs, coordinating lead authors and lead authors prepare the first draft report by mid-February 2015 (6 months). A first author meeting is held in September 2014

2015	First quarter	The first draft report is reviewed by experts until the end of March 2015 (1.5–2 months)
	Second quarter	The report co-chairs, coordinating lead authors and lead authors prepare the second draft report and a first draft summary for policymakers under the guidance of the review editors and the Panel (April–June 2015) (3 months). A second author meeting is held in June 2015
	Third quarter	The second draft report and the first summary for policymakers are reviewed by experts, Governments and other stakeholders during July and August 2015 (2 months)
	Third/fourth quarters	The report co-chairs, coordinating lead authors and lead authors prepare the final draft report and the final draft summary for policymakers under the guidance of the review editors and the Panel during September and October 2015 (2 months). A third author meeting is held in October 2015
	Fourth quarter	The summary for policymakers is translated into all the official languages of the United Nations languages by mid-December 2015, at the latest (1.5 months)
2016	First quarter	The final draft report and summary for policymakers are sent to Governments and other stakeholders for final review during January and February 2016 (1.5–2 months). Written comments from Governments on the draft summary for policymakers are strongly encouraged. Such comments must be submitted to the secretariat one week prior to the fourth session of the Plenary
	First quarter	The Plenary reviews and accepts the report and reviews and approves the summary for policymakers at its fourth session, in March 2016

V. Cost estimate

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

(United States dollars)

<i>Year</i>	<i>Cost item</i>	<i>Assumptions</i>	<i>Cost</i>
2014	Scoping meeting (40 participants: Multidisciplinary Expert Panel/Bureau members, experts)	Meeting costs (1 week, 40 participants) (25 per cent in kind)	11 250
		Travel and DSA (30 x \$3,000)	90 000
	First author meeting (90 co-chairs, coordinating lead authors and lead authors, plus 4 Panel/Bureau members, plus 1 technical support staff member)	Meeting costs (1 week, 95 participants) (25 per cent in kind)	18 750
		Travel and DSA (71 x \$3,000)	180 000
	Technical support	1 full-time equivalent professional position (50 per cent in kind)	75 000
2015	Second author meeting (90 co-chairs, coordinating lead authors and lead authors, plus 14 review editors, plus 4 Panel/Bureau members, plus 1 technical support staff member)	Meeting costs (1 week, 109 participants) (25 per cent in kind)	18 750
		Travel and DSA (82 x \$3,000)	264 000
	Third author meeting (90 co-chairs, coordinating lead authors and lead authors, plus 14 review editors, plus 4 Panel/Bureau members, plus 1 technical support staff member)	Meeting costs (1 week, 109 participants) (25 per cent in kind)	18 750
		Travel and DSA (82 x \$3,000)	264 000
		Technical support	1 full-time equivalent professional position (50 per cent in kind)

2016	Participation by 2 co-chairs and 2 coordinating lead authors in the fourth session of the Plenary	Travel and DSA (3 x \$3,000)	9 000
	Dissemination and outreach (summary for policymakers (10 pages) and report (200 pages))	Translation of the summary for policymakers into all of the official languages of the United Nations languages, publication and outreach	117 000
Total			1 141 500

References

Food and Agriculture Organization of the United Nations, *Biodiversity for Food and Agriculture: Contributing to Food Security and Sustainability in a Changing World* (2011).

T. Garnett and others, “Sustainable intensification in agriculture: premises and policies”, *Science*, vol. 341, pp. 33 and 34 (2013).
