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

Kuala Lumpur, 22–28 February 2016

Item 5 (b) of the provisional agenda\*

**Work programme of the Platform: scenarios and models of  
biodiversity and ecosystem services: methodological assessment  
and proposal on the further development of tools and  
methodologies**

## **Proposal on the further development of tools and methodologies regarding scenarios and models (deliverable 3 (c))**

### **Note by the secretariat**

#### **I. Introduction**

1. In its decision IPBES-2/5, on the work programme for the period 2014–2018, the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services approved a methodological assessment on scenario analysis and modelling of biodiversity and ecosystem services for consideration by the Plenary at its fourth session.
2. In annex I to the decision it is stated that “scenarios and models, including those based on participatory methods, have been identified as policy support tools and methodologies that can help decision makers to identify development pathways with undesirable risks and impacts on human well-being and to envisage alternative pathways that would attain the goal of conserving and sustainably using biodiversity” and that “based on the findings of the methodological assessment, this deliverable will result in an evolving guide, followed by efforts as directed by the Plenary to promote methods for the use of different types of knowledge and catalyse the development of databases, geospatial data, and tools and methodologies for scenario analysis and modelling.”
3. In response to this request for follow-up efforts, the secretariat has prepared, in collaboration with the Multidisciplinary Expert Panel and Bureau, the present note, which sets out in its annex terms of reference for the further development of tools and methodologies regarding scenarios and models, including institutional arrangements, schedule of events and cost. No additional costs are proposed compared to the indicative budget for 2016–2018 considered by the Plenary at its third session.
4. In the present note it is proposed that follow-up work on scenarios be structured around two activities: (a) Providing expert advice on the use of existing models and scenarios to address the needs of the Platform (which includes the evolving guide); and (b) Catalysing the development of scenarios and associated models by the broader scientific community.

## **II. Suggested action by the Plenary**

5. The Plenary may wish to take the following action:

(a) Request the Multidisciplinary Expert Panel to oversee further work on scenarios and models according to the terms of reference included in the annex to the present note, and to appoint an expert group to perform that work, in accordance with the approved rules of procedure and with the terms of reference;

(b) Request the Executive Secretary to make the necessary institutional arrangements as indicated in the terms of reference included in the annex to the present note.

## Annex

### Terms of reference for the further development of tools and methodologies regarding scenarios and models

#### A. Rationale and objectives

1. The assessment on scenarios and models is a methodological assessment. It represents the first phase of the Platform's work on scenarios and models (decision IPBES-2/5, annex VI). It was initiated in order to provide expert advice on "the use of such methodologies in all work under the Platform to ensure the policy relevance of its deliverables" (decision IPBES-2/5, annex I). It is one of the first products of the Platform because it lays the foundations for the future use of scenarios and models in the regional and global thematic assessments, and all the future work of the Platform.

2. A follow-up phase now needs to be initiated, in response to the Plenary's request, in order to provide advice to all the expert teams, in particular those working on the thematic, regional and global assessments on the use of scenarios, and to catalyse the further development of scenarios and models.

#### B. Proposed work

3. Further work on scenarios and models will include the following activities:

(a) Activity 1: provide expert advice on the use of existing models and scenarios to address the current needs of the Platform, to relevant expert groups of the Platform, in particular those currently undertaking assessments;

(b) Activity 2: catalyse the development of scenarios and associated models by the broader scientific community, for the future work of the Platform.

4. The further work on scenarios and models, being critical to all the Platform's assessments, would start immediately following the fourth session of the Plenary of the Platform and continue until the end of the first work programme in 2018.

#### **Activity 1: provide expert advice on the use of existing models and scenarios to address the current needs of Platform**

5. All assessments of the Platform include the assessment of existing work on scenarios and models for the relevant respective regions or themes in order to provide insight into the future of biodiversity and ecosystem services.

6. Four subactivities need to be performed to make this work possible: (a) facilitate access to the relevant literature on scenarios and models; (b) facilitate access to the relevant scenario outputs; (c) coordinate the use of scenarios and models in order to allow comparisons among regional, global and thematic assessments; and (d) further develop the evolving guide on the use of scenarios and models.

(a) Facilitate access to the relevant literature: a database of existing literature on scenarios and models will be established and maintained, providing source material for the syntheses undertaken in the course of the thematic, regional and global assessments at the local, national, subregional and regional scales. The database will include peer reviewed papers and publically available reports, and will also encourage practitioners and experts to share non-published or difficult-to-access reports, including on indigenous and local knowledge, in any language. The database will be set up in close collaboration with the task force on knowledge and data;

(b) Facilitate access to the relevant scenario outputs: the scientific community will be encouraged to make their outputs, such as maps and databases, readily available to the Platform's experts. Mechanisms under development within the Platform, such as the catalogue of policy support tools and methodologies (deliverable (4c)) or the knowledge and data repository (deliverable (1d)), will be used as potential starting points to establish a web-based platform for scenarios and models outputs.

(c) Coordinate the use of scenarios and models: this will be done through several physical and virtual workshops (organized in close cooperation with the task force on capacity-building), involving experts performing work on scenarios for the relevant chapters of the various ongoing assessments;

(d) Further develop the evolving guide on the use of scenarios and models: an evolving guide will be produced and maintained, in close collaboration with the catalogue of policy support

tools and methodologies (deliverable (4c)), building on chapter 6, on using scenarios and models in assessment and decision support, of the Platform's guide on assessment (deliverable (2a)), and on the methodological assessment on scenarios and models (deliverable 3 (c)).

**Activity 2: Catalyse the development of scenarios and associated models by the broader scientific community.**

7. Ongoing and future activities of the Platform will lead to the identification of gaps in scenarios and models. These gaps will need to be filled to advance knowledge in this field at many levels, to enlarge the body of knowledge for future assessments of the Platform. In addition, new scenarios, specific to the needs of the Platform, will need to be developed by the scientific community. The Platform will not generate this new knowledge, but will catalyse its production:

(a) Catalyse the filling of gaps in knowledge on scenarios and models: the gaps identified in the assessment report on scenarios and models, as well as future gaps identified through the work of the Platform, will need to be communicated to the scientific community so that they can be addressed;

(b) Catalyse the development for future use by the Platform of new scenarios of direct and indirect drivers: as highlighted in the scenario and model assessment, there are no existing scenarios that fully meet the needs of the Platform. The generation of these new scenarios will be catalysed by the Platform.

8. Both of these activities will be carried out in close collaboration with the task force on knowledge and data (deliverable 1 (d)) in the context of the dialogues to be convened by this task force to catalyse the generation of new knowledge and bridge knowledge systems.

**C. Institutional arrangements for undertaking work on scenarios and models**

9. This work will be implemented by an expert group consisting of 20 to 25 members recruited from among the co-chairs, coordinating lead authors and lead authors of the current scenario assessment expert group, as well as from among the scenario experts selected for the regional or thematic assessments. The final composition of the expert group will be decided in accordance with the approved rules of procedure, and will be approved by the Multidisciplinary Expert Panel. This arrangement will ensure the continuity of the work of the scenario expert group, and allow for immediate critical support to ongoing assessments and to the upcoming global assessment. Potential gaps in expertise will be filled using the procedure for filling gaps, if approved by the Plenary at its fourth session. This expert group will cooperate fully with the task forces on capacity-building, indigenous and local knowledge systems, and data and knowledge.

10. The technical support unit based at the Netherlands Environmental Assessment Agency, which provided support for the production of the methodological assessment on scenarios and models, will continue its work until the end of the first work programme in 2018.

## D. Schedule of work

11. The schedule for this work is set out below:

| <i>Time frame</i> | <i>Actions and institutional arrangements</i> |   |
|-------------------|---|---|
| 2016              | First quarter                                 | Selection of the expert group by the Multidisciplinary Expert Panel   |
|                   | Second quarter                                | Initiation of activity 1 (a): development of database and plan to facilitate access to relevant literature on scenarios and models; update and maintenance of database in 2016–2018<br>Initiation of activity 1 (b): establishment of a web-based platform for scenarios and models outputs, using existing mechanisms within the Platform to facilitate access to them; update and maintenance of platform in 2016–2018<br>Initiation of activity 1 (c): Coordinate the use of scenarios and models within the Platform through a number of virtual workshops; ongoing throughout 2016–2018<br>Initiation of activity 1 (d): Meeting of the expert group to further develop the evolving guide on the use of scenarios and models, in close collaboration with the expert group developing the catalogue of policy support tools and methodologies |
|                   | Third quarter                                 | Activities 2 (a) and (b): first workshop of the expert group to catalyse the filling of gaps in knowledge on scenarios and models and the development of new scenarios of direct and indirect drivers for the Platform  |
| 2017              | First quarter<br>Fifth session of the Plenary | Progress report on activities 1 and 2: presentation of literature database, web-based platform of outputs, coordination work on scenarios across the work programme, draft evolving guide; and outcome of first workshop on filling gaps  |
|                   | All year                                      | Activities 1 (a), (b), (c) and (d) continue throughout the year   |
|                   | Second quarter                                | Activities 2 (a) and (b): second workshop of the expert group to catalyse the filling of gaps in knowledge on scenarios and models and the development of new scenarios of direct and indirect drivers for the Platform   |
| 2018              | First quarter<br>Sixth session of the Plenary | Presentation of the work of the expert group at the sixth session of the Plenary  |
|                   | All year                                      | All activities continue throughout the year   |
| 2019              | Seventh session of the Plenary                | Final report of the expert group on all activities  |

## E. Cost

12. The table below shows the estimated cost of further developing tools and methodologies regarding scenarios and models. This cost is similar to the cost included in the indicative budget for 2016–2018 considered by the Plenary at its third session, and does not foresee any extra cost to the trust fund.

13. The Netherlands Environmental Assessment Agency, which hosts the technical support unit for the methodological assessment, has offered to provide 60 per cent of the technical cost in 2016, and 75 per cent in 2017 and 2018, instead of 50 per cent, as in-kind contribution to the Platform. In addition, partner organizations will be providing funding to complement funding by the trust fund to support the travel of participants.

| <i>Year</i>  | <i>Cost item</i>   | <i>Assumptions</i>   | <i>Estimated costs<br/>(United States dollars)</i>                 |
|--------------|--|--|--|
| 2016         | Activity 1 (d): meeting of the expert group to further develop the evolving guide  | Cost of the venue (1 week, 20 participants) (25 per cent in kind)    | 7 500  |
|              |  | Travel and DSA to support 75 per cent of participants (15 x \$3,750) | 56 250   |
|              | Activities 2 (a) and (b): first workshop on gap filling and catalysing the development of new scenarios, with expert group and 8 additional participants | Costs of the venue (1 week, 50 participants) (25 per cent in kind)   | 11 250   |
|              |  | Travel and DSA to support 50 per cent of participants (25 x \$3,750) | 93 750   |
|              | Technical support  | 1 full-time equivalent professional position (60 per cent in kind)   | 60 000   |
| 2017         | Activities 2 (a) and (b): second workshop on gap filling and catalysing development of new scenarios, with expert group and 8 additional participants    | Cost of the venue (1 week, 60 participants) (25 per cent in kind)    | 11 250   |
|              |  | Travel and DSA to support 50 per cent of participants (30 x \$3,750) | 112 500  |
|              |  | Technical support  | 1 full-time equivalent professional position (75 per cent in kind) |
| 2018         | Technical support  | 1 full-time equivalent professional position (75 per cent in kind)   | 37 500   |
| <b>Total</b> |  |  | <b>427 500</b>   |

Note: The costs are calculated based on the assumption that 75 per cent of the participants will need support.