

# International Science-Policy Interfaces for Biodiversity Governance - Needs, Challenges, Experiences

A Contribution to the IMoSEB Consultative Process

October 2-4, 2006, Leipzig, Germany



## Workshop Report

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## 1 Introduction

*The Workshop International Science-Policy Interfaces for Biodiversity Governance: Needs, Challenges, Experiences*, held in Leipzig October 2.-4. 2006, was prepared by an organizing group consisting of staff from the European Union (EU)-Commission (Directorate General Research and Directorate General Environment), the Universitat Autònoma de Barcelona (Institut de Sciencia/Tecnologia Ambientals), the German Agency for Nature Conservation (BfN) and the Helmholtz-Centre for Environmental Research Leipzig - UFZ.

The concept for the Leipzig workshop was to open up the discussion on needs, gaps and options for an international mechanism on Science-Policy Interface (SPI) in biodiversity governance. It is intended to contribute to the IMoSEB consultative process, without being organized by this process, and explicitly draws upon the experiences with existing or past science-policy interfaces, within but also beyond the biodiversity field.

The workshop participants jointly agreed on “**Recommendations** towards a Knowledge-Policy Interface for Biodiversity Governance”. In the following you will first of all find these **recommendations**, as the main outcome of the workshop. These are followed by a short **overview** about the issues discussed at the workshop and the main experiences and arguments provided. At the same time this overview serves as a reader’s guide to the following sections. After these general results a more detailed report on all the plenary and working group discussions is presented. Thus, **recommendations and overview** together **represent an executive summary** of the workshop appropriate for readers interested in the outcomes (sections 2 + 3). Readers more interested in the specific topics discussed will find additional information in the detailed reports of the discussions. Section 4 clarifies the objectives and section 5 the background of the workshop. Next we present the workshop itself: First the results of participants’ input via the questionnaire distributed before the workshop (section 6), then the main results from the plenary (section 7) and working group discussions (sections 8 + 9). The appendix contains the agenda of the workshop, the list of participants and the questionnaire through which participant inputs to certain specified questions were collected.

## 2 Outcome: The Leipzig Workshop Recommendations for a Knowledge-Policy Interface for Biodiversity Governance

*This document contributes to ongoing debates, including the IMoSEB consultation process, seeking to identify the optimal niche and conditions for the creation of an independent and effective international knowledge-policy interface<sup>1</sup> for biodiversity governance. A knowledge-policy interface is essential to support more effective biodiversity-related decision making and societal responses to the challenges of achieving sustainable development.*

### Mandate:

- Synthesize and communicate a knowledge base on biodiversity in support of decision making and implementation
- Bring together and acknowledge diverse understandings, perspectives, and values regarding biodiversity loss and change
- Create a mechanism for dialogue and exchange among holders of diverse knowledge and knowledge systems (i.e., all forms of traditional and modern knowledge and science)
- Foster deeper understanding of the ways in which biodiversity loss and change transcend scales (spatial, temporal, etc.) and jurisdictional boundaries
- Through its activities enhance and improve abilities to collect, exchange and disseminate knowledge and information, and promote actions in favour of better biodiversity management at all levels

### Outputs and outcomes:

- Scenarios of human futures and biodiversity loss and change, in relation to poverty, food security, economic growth, water security, conflict, human health, energy, climate change, etc. illuminating policy options, choices, and strategies available to diverse actors
- Periodic assessments of:
  - existing biodiversity knowledges, including identification of gaps in existing assessments,
  - status and trends on biodiversity,
  - strategies and options for response,
  - policy effectiveness,
  - capacity at all levels of decision making
  - biodiversity knowledge-policy interfaces, and
  - cross-issue linkages (e.g., poverty, food security, economic growth, water security, conflict, human health, energy, climate change)
- Analyses of the causes of biodiversity loss and change, including key aspects of political economies<sup>2</sup>, and the necessary elements of societal transformation to redress these causes

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<sup>1</sup> We use the phrase “knowledge-policy interface” to acknowledge that information and expertise relevant to policy must include all forms of knowledge.

<sup>2</sup> In this context we understand political economy as the analysis of economic and political dynamics, power structures, regulations, policies and dominant ideologies that affect biodiversity and people’s relation to it.

- Stock-taking and management of biodiversity knowledge, including for global trends, indicators, and monitoring systems
- Comprehensive outreach and communication strategy in support of dialogue and action
- Identification of knowledge gaps and feedback into research policies and priorities
- Identification of gaps in capacity for linking biodiversity knowledge to action at all levels of decision making and implementation
- Creation and dissemination of tools and methodologies for assessments, analyses, and other means of connecting knowledge and policy

**Process:**

- Ongoing, dynamic, and independent process that brings together diverse forms of knowledge, expertise, and science
- Ensure that process is legitimate and has appropriate institutional support and authorizing environment
- Establish secure funding stream from multiple sources
- Engage governments, private sector, civil society, scientific community, indigenous communities, international organizations and conventions, etc., in the design and operation of the mechanism
- Networking process that links and builds upon—and does not reinvent or duplicate—diverse existing networks of biodiversity expertise and policy
- Innovating process that identifies and seeks to fill gaps in existing networks of biodiversity expertise and policy
- Catalyze nested networks and activities at national and sub-global (e.g., local, regional, trans-jurisdictional) levels
- Process that ensures interpretation and translation among relevant languages, cultures, and knowledge traditions
- Provide regular opportunities for appropriate internal and external evaluation and review
- Establish small and effective coordinating mechanism (e.g., governing board) that includes appropriate balance and diversity across geography, sectors, stakeholders, expertise, etc.

**Questions requiring further reflection**

Participants agreed that future consultations will require careful consideration of the following key questions given the reality of trade-offs among democratization of expertise, stakeholder involvement, political legitimacy and accountability, funding mandates, scientific excellence, trust and credibility, etc.:

- What is the appropriate form of funding, institutional framework, and authorization of the mechanism by governments, international conventions, and the United Nations system while maintaining independence?
- What are the appropriate means for developing the network described above?
- How to link the mechanism to the needs of the various international conventions?

**Further information**

More information on the Leipzig workshop, is available at <http://www.ufz.de/spi-workshop>

### 3 Overview: a reader's guide

The idea of the Leipzig workshop was to open up the discussion on needs, gaps and options for an international mechanism on Science-Policy Interface (SPI) in biodiversity governance. It should therefore contribute to the IMoSEB consultative process and reveal the experiences with existing or passed science-policy interfaces, also beyond the biodiversity field, while leaving room to discuss marginalised perspectives or neglected issues. To reach this aim, people with rich experiences on former and existing SPI's, representing different perspectives, were brought together. In this setting (reported upon in Section 4 below), an exchange on lessons learnt for an interface on biodiversity was stimulated. The questionnaire, sent out to participants in advance, in order to prepare the agenda (Annex 3), produced answers showing the common perspectives but also some tensions and controversial issues (Section 6). The workshop was marked by a very constructive and inspiring atmosphere characterised by the curiosity to learn from other experiences and perspectives and the willingness to contribute jointly to creating a better SPI in global biodiversity governance. The following paragraphs take up some of the discussion points not necessarily reflected in the consensual recommendations of the workshop.

The first plenary discussion focused on the peculiarities of the biodiversity issue compared with other global environmental problems. Concerning the question why it is so difficult to communicate this issue to decision makers and the wider public, it was emphasized that biodiversity really is an abstract concept which is not so easy to grasp (cf. Section 7.2). Loss of biodiversity, therefore, is mostly not visible on an everyday basis, thus communication of the problem remains a basic shortcoming. It was highlighted that the message to get across is the relevance of biodiversity for basic societal needs and not (only) one of preserving charismatic mammals. Moreover, biodiversity is intrinsically linked with human wellbeing in a broad spectrum of social activities, from health and nutrition to urban development, forestry, fisheries, recreation, aesthetics, and spirituality. Biodiversity crises are many and result from inappropriate management decisions about the use and preservation of natural resources in countless social, ecological, and policy contexts at all scales. Therefore, to change unsustainable resource-use patterns different kinds of knowledge are needed including, but transcending scientific knowledge.

Compared with the political discussion of Climate Change it was emphasized that we are today in a very different situation: When the Intergovernmental Panel on Climate Change (IPCC) started its work in the late 1980s, there was neither a public awareness nor a scientific consensus about a global threat nor an international convention to address this problem. In contrast, the problem of biodiversity change is more or less known and a variety of international conventions and measures at different levels exist. What is missing is the national implementation of commitments agreed in international negotiations and the development of more adequate measures at different levels. In particular, the local perspective is very important for biodiversity, especially but not only in southern countries. It was emphasized that perspectives on Climate Change and Biodiversity differ between North and South and within Southern countries. Thus, finding solutions will also have to include countries from the south more directly than was the case at the outset of the Climate Change mitigation debate,

where, at least in the first years of the debate, northern countries were mainly made responsible for implementing measures. Finally, the question was raised whether the IPCC is really a good model for a SPI on biodiversity.

Regarding the aim of creating a new mechanism it was discussed that any new mechanism should have a “vision”, in the sense of an explicit ultimate aim such as “to improve the livelihood of people”. Such an explicit aim would provide the focus under which different kinds of knowledge could be integrated (cf. Section 8.3). Thus not merely a science-policy but a **knowledge**-policy interface should be created, which includes different forms of knowledge: from local know-how to “classical” basic science and all forms in between. It is important to translate the outcomes of such assessments onto the appropriate level of policy making. Moreover, the need for an authoritative voice was highlighted, in order to ensure scientific quality of and reflections on the own work of the mechanism. Concerning the political economy, the drivers and underlying forces of biodiversity loss have to be identified, including the interest structure and the power relations involved, as well as the obstacles to changing unsustainable use patterns. One group recommended the development of relevant scenarios as means for communicating knowledge (cf. Section 8.4). The Millennium Ecosystem Assessment (MA) approach to this may be a starting point, but the basics of its scenarios may still be too abstract to really address policy makers. Additionally, the mechanism should be able to show the importance of cross-sectoral work on the one hand, but also try to identify, as in other fields of environmental policy, thresholds of biodiversity conservation and convert the precautionary principle into thresholds for different ecosystems. Scientific assessments should not be seen only as “producing documents”, but rather as social processes for improving the exchange of ideas.

During the course of the workshop, in different plenary and break-out group discussions, shortcomings and achievements of existing SPIs were discussed (cf Section 8.5). The main shortcomings identified were problems of administration and governance, e.g. unclear or inexistent: political commitment / backing; timing; addressing and editing of outcomes/reports. Moreover, for some SPIs, quality and quantity of contributors were questioned and the need for secure advance funding was emphasized. Things that went well and would be a good point of departure for further approaches turned out to be mainly the social processes behind the work, including thematic aspects: integrative and participative approaches (such as in the MA), a strong focus on developing the conceptual framework and tools like scenarios and sub-global assessments. Critical for the success of assessments in terms of political impact are the main outcomes (e.g. Statement from the board of the MA; key messages of IPCC reports became foundations of policy). The overarching topic coming up within this context is the dilemma to find the proper line between scientific importance/integrity and political acceptance/involvement. This includes the question how far recommendations can or should go: is it sufficient to make them politically relevant or is a level of policy prescription needed?

In the second breakout group session several options for a interfaces on Biodiversity Governance were discussed, including: a “Global platform for biodiversity, ecosystems and human well-being” (Section 9.2); a “KPI – Knowledge-policy interface on biodiversity” (Section 9.3); a “Mechanism on biodiversity knowledge” (Section 9.4); and “Alternative frames” for biodiversity governance (Section 9.5). Each of these working groups in the second session dealt with crucial topics identified in the proceeding discussions: independence vs. political legitimacy, funding, process design (network, scales, hierarchies), mandate, conceptual design and how to bring knowledge together: Who should participate and how?

Building on the in-depth discussions of these experiences, the Leipzig Workshop agreed on **Recommendations** (see above) designed to stimulate further discussions and negotiations. Participants emphasized that biodiversity governance needs to be able to bring to bear the full range of knowledge and expertise available, including not only the best scientific information but also a wide range of pragmatic knowledge and expertise held by resource managers, local communities, social movements, the private sector, and indigenous peoples. The **Leipzig Recommendations**, therefore, call for a **Knowledge-Policy Interface** that would go well beyond what has become the traditional, top-down model of international scientific assessment as represented by the Intergovernmental Panel on Climate Change (IPCC). In this regard, the Millennium Ecosystem Assessment (MA) offers a potentially useful starting point for discussions, although its own mechanisms for bridging knowledges and scales were still too limited in the eyes of many who participated in the Leipzig workshop.

Participants observed that the institutional landscape of international biodiversity expertise is already populated by diverse, active organizations. A successful knowledge-policy interface needs, therefore, to create a **meta-network** that builds upon and brings together these diverse biodiversity knowledge organizations without reinventing or duplicating existing networks – an example mentioned that could potentially inspire the governance of this knowledge-policy interface was amnesty international (Section 9.5, other examples in Section 9.3). The interface should not simply consist of a global assessment of global losses of biodiversity; rather, its organization should be thoroughly multi-scalar and trans-jurisdictional. Provision must therefore be made, perhaps following the lead of the MA sub-global assessments, for nested, decentralized, largely autonomous sub-global networks, activities, and assessments, focused on the needs of specific actors in specific decision-making contexts. A knowledge-policy interface must also be a dynamic, permanent organization that facilitates experimentation, learning, and change. The risks of biodiversity loss and change are unlikely to disappear in the near future. Provision must therefore be made for developing baseline assessments and indicators of biodiversity loss and change and also for periodic re-evaluation of trends and response scenarios. At the same time, the organization must change as necessary to meet the future needs of decision makers. Provision therefore must also be made for systematic internal and external reflection, critique, and revision of the knowledge-policy interface itself.

## 4 Objectives and setting of the Leipzig Workshop

The **objective** of the Leipzig workshop was to extend and deepen the discussion on the need, challenges and options for an expert body in biodiversity governance. It should therefore contribute to the ongoing debate on an international science-policy interface for biodiversity in general and the IMoSEB consultative process in particular (see below). The workshop was intended to contribute to this consultative process by offering a wealth of experiences on strengths and weaknesses in existing science-policy interfaces. It provided a forum to identify and analyse different roles and features of scientific assessments and expert bodies while leaving room to discuss marginalised perspectives, focus on neglected issues, and identify a broad range of options and alternatives. The challenge was to open up to additional perspectives and collegial interactions and in doing this the workshop was able to present some new options.

These aims were addressed by the specific **setting** of the workshop. While being oriented towards the ongoing IMoSEB negotiation process and intended to produce some input toward those considerations, the workshop itself had no formal mandate to negotiate the issues addresses. This was perceived as an opportunity and an advantage: that the workshop was able to discuss some topics and exchange experiences without being directly responsible for further negotiations. Thus, the main idea was to go one step back from the official negotiation process and look slightly differently at the issues involved.

This idea was reflected in the setting. The aim was to bring together high level expertise from two kinds of actors: from what was called **key actors** and from **scientific observers**. Where the first group consists of scientists and representatives of national or international organizations, who were or are involved in science-policy interfaces including the IMoSEB process, members of the second group are not involved, but deeply engaged in social scientific research about these interfaces. What was intended was to bring together two groups of people with rich experiences on SPI but reflecting different perspectives. The aim was to stimulate an exchange about respective experiences with existing interfaces, between these different perspectives, and to stimulate an open and in-depth interaction within and between both groups.

To facilitate such an open situation the workshop adhered to the **Chatham House Rule**. This rule says that “participants are free to use the information received” but the identity and affiliation of the speaker(s) may not be revealed” (see <http://www.chathamhouse.org.uk>). That means that the statements were recorded, but not the contributors. In order to make the discussion productive and responsive, the number of participants was limited, to ensure an open fluid and profound discussion. The topics to be discussed were determined by the participants. In order to prepare the workshop agenda, a questionnaire was circulated among participants in advance. The results of the questionnaire were then presented and discussed at the first session of the workshop to open up the discussion and to identify topics to be addressed during the workshop.

The workshop resulted in a set of recommendations that the participants feel should be taken into account when discussing mechanisms for scientific advice for biodiversity governance (see the **Leipzig Recommendations** above). These recommendations summarize the positions arising from the discussions of the workshop and contribute to the Consultative Process on the IMoSEB. They were also distributed widely to stimulate further discussions on the need and the options for science-policy interfaces on biodiversity.

## 5 Background: the IMoSEB-consultation process

Over the last years growing concern has emerged regarding the need to improve scientific advice supporting decision making on biodiversity. In January 2005 a conference in Paris launched the initiative towards an International Mechanism of Scientific Expertise on Biodiversity (IMoSEB) to meet this challenge. The idea received strong political backing from President Jacques Chirac and the French government, which decided to fund a consultative process to assess the need, scope and possible forms of such an International Mechanism. A *Diversitas*-conference in Oaxaca in November 2005 called for a consultation process on a new mechanism which would provide independent and regular scientific expertise on biodiversity. It was argued that the proposed consultation should address the following overarching questions: How can we improve our capacity to predict changes in biodiversity, to evaluate the consequences of biodiversity changes and to build scenarios that would better inform decision makers? How can we inform the public about current trends in biodiversity, and consequences of on-going changes?

The consultation was launched on 21-22 February 2006, at the first meeting of its International Steering Committee (ISC), held in Paris on February 21<sup>st</sup> and 22<sup>nd</sup>, 2006. (for more information see <http://www.imoseb.net/>).

## 6 Presentation of the Questionnaire Results

**Preliminary remark:** Prior to the workshop, a questionnaire was sent to all participants, designed to take up as much as possible of the individual interests, concerns and background experiences from the group of practitioners and theoreticians (see Annex 3, p 33). The following synthesis presents the results of this "survey". It served to open up the discussion and to identify topics to be addressed by the breakout groups in in-depth discussions.

The answers to these questions indicate that terms such as "level", "scale" and interface are used quite differently by different respondents and that they have different meanings for different participants. Given the different backgrounds of the participants, this is not surprising, and it would be very unlikely to end up with a single shared definition/ answer to these questions. Therefore some typical answers are pointed out as starting points for the further discussion. In a first step similarities and differences are identified regarding the understandings of the issues involved. In a second step different perspectives and open questions are mentioned (a collection of original responses is summarized in Annex 3, see p 35).

### Question I. What are the specific characteristics of biodiversity?

Participants identified the following similarities, in particular with climate change: both represent a risk to the global environment, are caused by the unsustainable path of 'development', as well as the centrality of science in defining and evaluating policies.

Biodiversity, however, has some specific characteristics: it is "harder to grasp", due to the complexity of biodiversity and the drivers and the impacts of biodiversity change. Moreover the concept is abstract and to some degree unclear, because there exists no universally valid definition. Therefore, concerning a Scientific Assessment it is difficult to assess and predict biodiversity change, to measure and quantify the change in policy-relevant terms and to create sound scientific evidence. For biodiversity, special emphasis must be drawn on the local component and on the distribution of impacts. Expertises and responses are more national and local in nature than responses to climate change.

Controversial Issues are:

- Is biodiversity a (scientific) concept or a (real) phenomenon?
- What is the nature of the problem: is it primarily scientific or political?
- Should we speak about "Biodiversity loss" or about "biodiversity change"?
- Is biodiversity more a "common heritage of humankind" or a "national biological resource"?

As tensions that require further discussion some participants asked whether the Intergovernmental Panel on Climate Change (IPCC) represents a blue-print for a new body on biodiversity or whether we need an alternative approach, framework or assessment tool.

## **Question II. Questions/ Issues to be addressed at the science-policy interface?**

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General issues that should be addressed are questions regarding the reasons for the lack of sensitivity to biodiversity change, and decision opportunities implicated by issues associated with biodiversity. Participants mentioned the following questions: what are key drivers or root causes; how do local, national and global causes of biodiversity loss relate to each other; and what are the different impacts of different human activities at different scales?

An issue emphasized by participants as relevant on all scales or levels is that most assessments focus narrowly on issues of science, leaving the policy issues out of sight. To meet the information needs at the national and local level, assessments should give more weight to political questions. Moreover, the role of biodiversity in supporting ecosystem services, economic values of biodiversity and of biological resources and the role of invasive species were highlighted in the survey responses.

As comparative advantage of a particular scale/level participants mentioned that at the global level, the impact of trade and development is important, at the regional or sub-regional level transboundary issues such as common protection areas, at national level responsibilities regarding monitoring and implementation of the Convention on Biological Diversity (CDB), and at the local level the connections between biodiversity and livelihoods.

As particular challenges for biodiversity, participants stated the need for producing knowledge directly useful to local people, and their movements and (strongly connected) developments in scientific knowledge that supplement and do not supplant local knowledge.

Questions identified as needing further discussion are:

- What is the relation between different scales/ levels?
- Are there mechanisms to integrate them?
- What is the relationship between scientific and local knowledge?
- Scope: Weight given to social and policy questions?
- What can we learn from the MA?

## **Question III. What are functions to be performed by a new expert body?**

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As a basic understanding participants mentioned the need for a mechanism to mobilize and bring together relevant knowledge/expertise. Therefore, the task is to synthesize and evaluate knowledge in order to provide reliable information to the potential "user".

Additional functions are to bring together scientists and politicians, to contribute to building up networks, to contribute to capacity-building in research and policy making and to raise public awareness

Participants identified the following tensions and controversial issues: Do functions of a new body differ with regard to different scales/levels? Should it function more as an advisory body or as a neutral, disinterested arbiter? Is there a need of one unitary international authoritative assessment? Strongly connected are the alternatives of a bottom-up or a top-down approach and the questions whether the new interface should be opening up the debate or supporting the closure of political controversies.

Questions identified as needing further discussion are:

- At what scale and level is a new interface needed and what functions should it perform?
- What is the niche and the added value?
- What is the division of labor with other bodies across multiple regions, levels and scales?
- Is a “consensual” knowledge base required?

#### **Question IV. What are particular challenges at the interface between science and society?**

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The following challenges were identified:

- the need for political attention and political buy-in
- political legitimacy and scientific integrity/credibility
- a sustainable funding stream

Concerning the trade-offs participants pointed out trade-offs between political relevance and scientific quality of the information; the involvement of governments and stakeholders and scientific independence; and to provide coherent and unambiguous advice: the trade-off between credibility with policy-makers and political neutrality.

Questions identified as needing further discussion are:

- How to become (more) sensitive to local contexts?
- How to identify and take into account the information needs of potential “users”?
- How to come to a balanced composition where the South is properly represented?
- What is the proper role of political advocacy (overt or implicit) in assessments?

## 7 Open discussion: What are the main topics to be addressed?

Following the presentation of the questionnaire results, an open discussion took place which can be summarized under the following topics:

- What aspect of biodiversity is so abstract that it makes communication difficult?
- What are the differences between the IPCC/Climate Change debate and the biodiversity issue?
- What is the proper governmental structure of a mechanism?
- Which aspects of science and knowledge need to be included?
- What are the processes that need to be developed?

*These topics were not discussed systematically. Thus the following summary should be understood as a pool of important aspects rather than an assessment of their respective importance.*

**Biodiversity as abstract topic:** It was agreed, that the reference definition of biodiversity, although considered somewhat incomplete or misleading, should be the one given by the CBD (Interestingly, IPCC and UNFCCC use different definitions of Climate Change). Nevertheless the concept remains hard to grasp and the use of contesting concepts has to be accepted to some extent. Loss of biodiversity is a severe problem, but it is generally not visible on an everyday basis, thus communication of the problem remains a basic shortcoming. Through this communication, it must somehow become clear (1) what the goals for improving the situation really are and (2) how they are linked to aspects of human well-being. The message to get across is on “wine, bread and cheese” and not (only) one of preserving charismatic mammals. In this context, the question of the value of biodiversity was raised – again, it should be made clear that no common opinion regarding what such values really are existed among the workshop participants.

**Differences between the biodiversity issue and the IPCC / Climate Change experience:** When the IPCC started its work in the late 1980s, scientists and policy makers had very different ideas about the problem dimension in Climate Change, thus the IPCC was important for finding a consensus between the different groups. For biodiversity change the problem is more or less known (although there is still a need for better evidence, e.g. by proper indicators). What is far more problematic is the lack of implementation of measures against biodiversity change.

Viewed from different perspectives, especially the local perspectives from southern countries, biodiversity loss may actually be a far more problematic issue than Climate Change. The example was stated that in China on the national level Climate Change is the most prominent topic of environmental change while on the regional and local levels concerns about biodiversity loss are much higher.

Thus finding solutions will also have to include countries from the south more directly than has happened in the Climate Change mitigation debate, where, at least in the first years of the debate, northern countries were mainly made responsible for implementing measures. Furthermore no “easy victories” (as in the ozone debate) for biodiversity problems are visible, because most problems need a wide range of measures in order to reach targets.

**Governance structures:** There was a broad consensus within the workshop that, having in mind the experience from other assessments in the past, a suitable governance structure for the new mechanism for biodiversity expertise will be essential, including attention to questions like:

- What is the “vision” of the mechanism? How to “humanize the biodiversity discussion”?
- Under which authority should it act?
- Who will make management decisions?
- What about quality control and reflections on the own work?
- The political economy of the mechanism has to be clear: What does it aim to achieve?

The mechanism needs to be strong enough that it can act as an authoritative voice – to strengthen the requirement for implementation of the CBD. The SBSTTA (Subsidiary Body for Scientific, Technical and Technological Advice) of the CBD was originally designed for this purpose, but changed its role, shifting towards policy oriented work. The initiative of IMoSEB is mainly driven from the science, acknowledging the urgent need for action on the one side, but on the other side trying not to loose scientific credibility.

**Science and knowledge:** The discussion about a “vision” should also include awareness that there are different levels of knowledge to be included, thus creating a knowledge-policy interface that includes all steps from producing and collecting data, transforming it into knowledge and translating it into a political context.

Thus, integration is needed between different forms of knowledge (local know-how to “classical” basic science and all forms in between) and also an ability to translate the outcomes of knowledge integration onto the appropriate level of policy making. The Ecosystem approach of the CBD tries to bridge these different knowledge and policy forms and may thus serve as a starting point. It must however be further recognized that competing areas of knowledge will appear, e.g. with regard to sustainability of agriculture and the use of GMOs.

One means of communicating knowledge should be to develop relevant scenarios. The Millennium ecosystem Assessments approach to this may be a starting point, but the basis of those scenarios may still be too abstract to really address the needs of policy makers. Additionally, all MA scenarios lead to a loss in biodiversity, and may, thus, not be applicable to defining options for future action in this field – nonetheless, defining response options should be a major target of the mechanism.

Additionally, the mechanism should illustrate the importance of cross-sectoral work on the one hand, but also help to identify, as in other fields of environmental policy, thresholds of biodiversity conservation and to convert the precautionary principle into thresholds for different ecosystems.

**Processes:** A first point made on scientific assessments was that they should not only be seen as “producing documents”, but rather as processes for improving the exchange of ideas. In this context, new assessment types are needed where the MA was a first try: It showed that no large structures are needed to develop such process, and that it is important to spend a lot of time on developing concepts and common ideas. Although this also led to

some shortcomings (e.g. in the end a lack of time for later steps like defining response options), this process of developing common approaches was central for addressing different topics in a consistent manner. Thus the MA process demonstrated that a form of mainstreaming of different knowledge types is possible, also including different scales and not sticking only to the global aspects of a problem.

## 8 1<sup>st</sup> Breakout Group Session

### 8.1 Discussion on session themes: Identifying baselines

Based on the results of the questionnaires and the initial workshop discussions, the following topics were proposed for breakout groups:

- What is our target? Do we want to be close to politicians? To the general public? To business leaders? Whom do we want to reach?
- Governance of IMoSEB: What process should IMoSEB use?
- What shall this group achieve? What shall the output be of that SPI?
- What are the needs??
- How can IMoSEB bring different groups together? How can different stakeholders be connected?
- Look at all the above together in each breakout group but each group following different approach/models of mechanisms?
- Alternatively split up according to different critical functions of the IMoSEB, first look at topics then look for the structures.
- Alternatively: split up according to levels from local to global
- The question of knowledge: What kind of knowledge is needed? What is really the problem in biodiversity issues?
- What is the political landscape in which this IMoSEB is working?
- What can we learn from past experiences?

Two options to aggregate different topics were discussed:

- What are the needs, actors, challenges, divided in three levels local, national, international and a fourth group dealing with knowledge
- (i) key priorities, target audience, stakeholders, visions (ii) bridging knowledges and scale, (iii) political economy/context of IMoSEB and (iv) lessons of past models assessment, process questions

The second option was agreed upon for first break-out group session.

### 8.2 Group 1-1: Visions, Needs, Structure, Priorities

This working group focussed on a vision for an international science-policy interface for biodiversity governance, and on which knowledge, processes, approach and structure would then be necessary for achieving this vision.

- **Vision:** Linking the knowledge base to policy-making processes with the ultimate aim to improve the livelihood of people

For living up to this vision, the science-policy interface necessarily would have to be based on **participatory processes** because

- the ultimate aim is to improve the livelihood of people,
- it is intended to use the whole knowledge base, and
- for being effective, it needs to involve actors impacting on biodiversity

Different types and forms of **knowledge** are needed to be directed towards the vision and this knowledge is not yet available in sufficient quantity and quality:

- Societal knowledge on
  - How to transform biodiversity into a social good, so that people appreciate biodiversity and want to preserve it
  - The different needs of the different people, so that all stakes are on the table
  - How to negotiate between plural values (negotiation of meanings), which is different from negotiating between different interests
  - Trust and power – how to further trust between different people, how to acknowledge positive and negative aspects of power
- Knowledge for prioritising, in order to target actions that make an impact, before, e.g. making an exhaustive list of options, discussing options with lower priority etc.
  - Trade-offs between options – today, trade-offs often are not clearly identified, and ways how to handle these trade-offs are underdeveloped or underused
  - Making clear what remains on which table, so that actions not yet undertaken are not forgotten, and that specific persons are accountable for bringing them up again.

When focussing on the livelihood of people, we favour a **holistic approach**:

- Different ways of looking at the problem enrich the understanding and favour participation
- Stepping outside the biodiversity box and connecting to other issues (water, health, livelihood) makes the complexity palpable and introduces stakes and stakeholders relevant for biodiversity
- Different actors contribute different perspectives, different stakes, and different options for dealing with the issue
- Actors associated with different levels should be involved because biodiversity issues are multi-level issues.

The **structure** of an international science-policy interface focussing on livelihoods has to be shaped in the following way:

- It addresses national and international levels, and at the same time is based on a network that cuts across all levels
- it is organically linked to local, supra-local & regional initiatives to maintain the relevance of scientific intervention
- We shortly discussed the suitability of two models: national platforms (such as the European biodiversity platforms) and the International Model Forest Network

Three **further requirements** of such an interface were mentioned:

- Communication: It is important to tell stories to illustrate the social-good character of biodiversity for all kind of publics
- Education about available knowledge and ignorance (and uncertainties) is needed to create awareness of both among policy-makers
- Baseline indicators and monitoring to evaluate the state and trend of biodiversity are missing

### 8.3 Group 1-2: Bridging knowledge and scales

Discussion centred around three principal issues

- The diverse meanings of BD
- Characteristics of different knowledges across scales
- Bringing together different knowledges

### **The diverse meanings of BD**

When trying to bring together different knowledges which are maintained in separate groups and also at different scales, clarity about the terms we use is most important.

Several aspects were raised in the group:

- Biodiversity is not about nature conservation only, but most politicians like to reduce it to that topic. In many countries, the private sector conceives of BD in that way and consequently considers it either irrelevant or adverse to business.
- Change from “nature” or “wildlife” to “BD” was important: BD includes diversity of life, it’s a much wider thing than “wilderness”. During CBD negotiations there were two strong blocks opposing each other on this issue. “Wilderness” as a western concept does not apply to many cultures. Opposed to it is the understanding of living in a landscape with people. Differences in understandings at this level have important implications for policy.
- Framing BD as ecosystem services makes it very economic, it’s all about money. Alternatively, one could speak about benefits, not put into money terms. Furthermore, the understanding of BD as a bundle of different ecosystem services puts BD in different boxes of the different services categories. This breaks the more interrelated way in which people relate to BD.
- With regard to policy leverage, too complex, too abstract or too divergent definitions of BD are problematic. E.g., Climate Change was successfully placed and maintained on the agendas by the message “With the technology we can change it all”. In contrast, “nature conservation” has still old fashioned, even colonial, connotations.

### **Characteristics of the different knowledges across scales**

- What knowledges are we talking about? Possible axes of differentiation for knowledges are (i) traditional/modern, (ii) scientific/common, (iii) local/globalised. Categories are not fixed. Instead, recognition of differences is essential.
- Scales: How do local people feed their knowledge into higher level processes? The people who have different forms of knowledge must be involved in policy issues. If you have local knowledge on a medicinal plant that same knowledge is being transformed when it moves up – it means a different thing to the pharmaceutical company. Knowledge becomes fragmented and transformed.
- It is not that all knowledge at local level is always the most appropriate, e.g. locals may not know that a particular plant is threatened at national or global level. Actors at higher levels also have knowledges that locals don’t have and that knowledge needs to be passed down to local level.
- Knowledges at different scales: Power lies at the national level. At local level people know the context of conservation because they are dealing with it. At international level there is a wider understanding but at national level there is often a very strict understanding of conservation in the traditional way, maintained by governments and NGOs. But even when they acknowledge different understandings and consider alternative approaches, they don’t want to change because it means a loss of power.

### Bringing together different knowledges

- Today national and scientific knowledges are considered superior. Because knowledges reproduce patterns of power. We cannot easily integrate scientific and traditional knowledges; we have to bring different knowledges together without annihilating the differences.
- One approach is changing the way in which scientists are formed. E.g., agricultural students are also staying with farmer families, and so they learn about traditional knowledge and the existence/relevance of different views. But this is probably insufficient to change the ways in which dominant scientific knowledge is being produced.
- Dialogue: As dialogue between knowledge systems takes place, policy follows. But for that it is necessary to identify the relationships between different levels of governance (subnational – national – regional – global) – and to identify potential bottlenecks in decision making levels.
- Knowledge requirements for managing the knowledge policy interface: Three elements, (i) knowledge of what knowledge is needed; (ii) knowledge of what knowledge is available; and (iii) knowledge about what could be done.
- Clarity and commitment about the goals: different interests result in different considerations of what is necessary to know – this must be made explicit. The three objectives of the CBD could be put as the goals of IMoSEB: conservation, livelihood and equity. The required knowledge then needs to be specified at different levels.
- Translation between languages and knowledges is essential, but scientists are not neutral facilitators between knowledges. Each “group” should have its own translator knowing how to interact with the others. IMoSEB can be understood to serve as a forum where representatives of knowledges exchange their views. GBIF (Global Biodiversity Information Facility) was such a forum, with some people organising it but not intervening as translators. There, participants spoke directly and organizers provided a non-threatening space for them.

### 8.4 Group 1-3: Political Economy

The group discussed the fact that the political landscape is determined by the Political Economy. Some definitions of Political Economy and their relevance were discussed. Crucial is the fact that Political Economy is mainly concerned with economic and social interests and connected power relations, including the discursive framing of problems (regarding cultural understanding and scientific definitions of certain problems etc.). Therefore, Political Economy is important because it addresses questions like: What are the root causes of biodiversity loss and change? Who are the actors driving these changes? Which interests with which power resources are involved?

**Root causes** for biodiversity loss are very complex and range from the predominance of the so-called "socio-economical development model", globalisation, unbalanced and inappropriate global, national and local governance structures, to unsustainable consumption and production patterns, GMOs, etc. Root causes are perceived as being generally anchored deeply in the development model, which makes it difficult to reshape unsustainable pattern of biodiversity use. Therefore, those actors and processes in the political economy which are the main influencers of these underlying causes need to be the prime addressee of a KPI. A KPI consisting of only 'converted' biodiversity experts and addressing only the 'converted' biodi-

iversity community would not be successful in identifying and provoking the required political changes.

Taking Political Economy into account, a KPI has to deal with the following questions:

- How to deal with the underlying causes and the societal context of biodiversity change (economic globalisation, global power relations, national interests, global struggles, e.g. against privatisation, GMO).
- It needs clear scenarios addressing the effects of change, referring directly to the knowledge needed by the target groups (e.g. issues of GDP, food, poverty).

The group identified therefore the following main **criteria** to be fulfilled for an effective KPI:

- Clear governance, authority and mandate
- Development of clear scenarios addressing the effects of biodiversity change on those issues which are of main interest to the general public and decision-makers
- Highlight and analyse the cause-effect interaction between the different levels (local, national, regional, global) and between different regions or countries (e.g. ecological footprint).
- Include expertise not only from biodiversity science and knowledge, but also in the field of macroeconomics, social sciences, political sciences, etc...

The group identified the following **open questions** as topics which would deserve more consideration in the afternoon:

- Independence vs. political legitimacy: There is a trade-off between a KPI being independent and have scientific integrity and being politically legitimated, adequately funded and having governmental recognition of its work and results.
- Participation model: should KPI rather be an open and bottom-up network (like Wikipedia) or a rather formal mechanism?
- Which actors should be involved? Not only the usual biodiversity experts, but also macroeconomist, societal experts etc.
- Rather a network or a formal mechanism?
- How can the need to be inclusive, tapping local and traditional knowledge and addressing several scales and levels be fulfilled while still being effective? How can such a mechanism nonetheless generate a few clear, globally relevant outcomes and messages?

### **8.5 Group 1-4: Lessons learned from former assessments**

The group discussed experiences from different assessments (mainly focussing on the Millennium Ecosystem Assessment and IPCC processes). The approach was to collect main shortcomings as well as good experiences from them, trying to find a baseline for “best practices”.

The **main shortcomings** identified were mainly problems of administration & governance, e.g.:

- Unclear or no political commitment/ backing (e.g., Global Biodiversity Assessment)
- Timing of outcomes (e.g. MA report on Wetlands was delivered right within the Conference of the Parties (COP) of the Ramsar convention)

- Addressing the private / technological sector by simple condensed messages: the Business and Industry Report of MA was insufficient; also other assessments fail to condense their findings in a way that they can be understood by private companies. Another example is the lack of incorporation of stakeholders from outside the “climate” community into the IPCC processes. Additionally, a “technological implementation” perspective is needed for biodiversity issues (similar to what the technological perspective as it worked within the ozone depletion discussion in the 1980s)
- Weak editing of reports and too few professional outreach activities (e.g., MA)
- Quality of contributors – taking volunteers does not ensure high quality. The IMoSEB process should aim at getting the best (perhaps paying them for their work). Also the past experience of contributors in assessment processes should be considered.
- Quantity of contributors: Does it really require 100 and more contributors for the envisaged outcomes?
- Clarify that assessments are processes and not mainly documents.

Things that **went well** and would be good for further approaches turned out to be mainly the social processes behind the work, including thematic aspects:

- Integrative approach for the board of the MA (all possible stakeholders / interest groups involved, although not all active), good leadership of the process
- Strong focus of developing the conceptual framework (MA)
- Strong tools like scenarios and sub-global assessments: scenarios of the MA were important to the communication process but were not properly elaborated; sub-global assessments should have been done before global assessments in order to incorporate findings
- Main outcomes are critical (e.g. Statement from the board of the MA; key messages of IPCC reports became foundations of policy)

The overarching topic coming up within this context was the dilemma of finding a proper line between scientific importance/integrity & political acceptance/involvement. This includes the question how far recommendations can or should go: is it sufficient to make them politically relevant or is a level of policy prescription needed?

### **8.6 Discussion of working group results**

During the discussion following the first breakout groups, a list of potential crucial points for the design of a biodiversity mechanism was proposed:

- Secure source of money
- Choose a charismatic leader and the people to be involved
- Proper design
- Dialogues for bringing in different players and sectors
- Proper editing of reports, production of digests for specific target groups
- Develop clear messages with professional outreach
- Create a regular “living” network
- Develop a good conceptual design from the start
- Create an effective Governance structure
- Formal and regular reflection and review

## 9 2<sup>nd</sup> Breakout group Session

### 9.1 Discussion on session themes: Developing Draft ideas for Interfaces on Biodiversity Governance

Participants decided that after a discussion of specific topics in the first working groups, the second session should be used to discuss possible designs and content of a biodiversity mechanism in parallel groups, each of them dealing with the following five topics:

- Independence vs. political legitimacy and funding
- Process design, network, scales, hierarchies
- Mechanism and Mandate
- How to bring knowledge together: Who is to participate and how?
- Conceptual design

### 9.2 Group 2-1: "Global platform for biodiversity, ecosystems and human well-being"

This group designed and discussed mandate, outputs, structure, instruments and members with a view toward one specific version of an international science-policy interface on biodiversity, called:

#### "Global Platform for Biodiversity, Ecosystems and Human Well-being"

**Mandate:** assure that knowledge on biodiversity is relevant for policy decisions to help to stop biodiversity loss and hence improve people's livelihood

#### Outputs:

- Improved and continuous Millennium Ecosystem Assessment (MA)
- Improved and integrated knowledge generation
  - Identify how to assemble research and to collect relevant data
  - Transform information of status and trends into information relevant for policy
    - Use available natural science knowledge as a part of the puzzle of necessary information relevant for policy responses
    - Address the lack of many aspects in natural science data
    - Very few social science knowledges available on biodiversity
  - Bringing knowledges on different scales together:
    - We need a global body
    - Are there hierarchies between global and sub-global bodies? What would be the power of this global body?
    - MA goes in the right direction
    - Take sub-global assessments into account from the start
    - Local knowledge to be integrated – but how? Already at a national scale, it works rather badly, so how could it work on an international level?
    - National and international level to be addressed, but there are national bodies already

- Systematic engagement of key stakeholder and influential policy makers
- Knowledge communication to and from policy processes
- Monitoring and reporting done via GEO (global biodiversity observation system in GEO)

**Structure:** Degree of independence with some kind of intergovernmental setting.

**Finance:** should be private and governmental

- If you don't have governmental seal, you don't get financing. MA had the UN nodding. Some sort of UN based umbrella might facilitate governmental buy-in.
- This might also help private money collection.
- Process has to be triggered by a preparatory UN (or so ) funding.
- On the other hand, findings are diluted if you have governmental influences.
- Finally, a hybrid model seems to be adequate: actors (also from governments) acting in their capacities.

**Instruments:**

- a UN Charter Article on biodiversity protection could help us, but brings problems with it as well
- best practices might be useful, but are not necessary transferable
  - Shouldn't this be a task for CBD?

**Members:**

- North/south balance etc. of members and boards
- Balance of disciplines of members and boards
- Stakeholder representation (NGO, private enterprises)
- Balance and participation has to be secured by paying their travel and presence
- Representatives of major related bodies should be included

**Size of the body:**

- A small group of wise men and women as a chairing organism, something like the MA board
- But: all this is not really reconcilable

### 9.3 Group 2-2: "KPI – Knowledge-policy interface on biodiversity"

The group started out by discussing the Article "Diversity without Representation" by Loreau, Oteng Yeboah et al (*Nature* **442**, 245-246 (20 July 2006)). The discussion centered on two main issues: how the problem of biodiversity is framed in the article and on the role expertise, especially scientific expertise, plays or could play in addressing the problem.

**Issues with Framing**

- How central is the "biodiversity crisis" model?
  - • one framing among many;
  - • There are in fact multiple framings of the problem

- Is there really a lack of scientific information? Or rather a lack of communication?
  - • What about:
    - Political economy?
    - Vested interests?
  - • The article presents assertions but no evidence on these matters

#### **Issues with portrayal of expertise**

- The paper assumes but does not show that CBD lacks an “IPCC”
- The proposed mechanism seems to counter democratization of expertise?
  - • Accountable to who?
  - • Which experts?
- Echoes Wynne’s model of Public Understanding of Science (PUS).
  - • Assumes that science compels action?
  - • Assumes existing lack of information, true?

The group then discussed its position on different dimensions to take into account with regard to the KPI

#### **General considerations of a KPI mechanism**

- Should it define the “biodiversity problem” (seek a unified definition) or provide alternative definitions of “the problem”?
- Why not an IMoLKB (local knowledge), IMoPEB (political economy), IMoPOB (policy options)?
- How is the KPI different from an NGO (e.g. IUCN)?
  - General point: Has KPI been clearly shown to be a critical missing factor to policy development?
- KPI vs. SPI
- Solving problems and what kinds of problems?
  - e.g. should it focus on Poverty and biodiversity
- Proposing governance structures?
- Assessing role of expertise?
- Role of stakeholders?

#### **Design Criteria for a Biodiversity KPI Mechanism**

- New global coordinated network of experts, stakeholders in order to
  - share local experience with global network, and to
  - share global perspectives in local contexts
- But also enables decentralized (sub-global) or nested networks and activities
- Focused on improving democratization of expertise and knowledge
- Acknowledges and includes diverse perspectives and knowledge
  - this means it cannot rely only on the traditional peer-review process
- Multiple stakeholders for the KPI
  - including CBD (and SBSTTA)
  - international NGOs, organizations etc.
  - multiple levels (National, Regional, Local)
  - connected to existing efforts
- Explicitly considers a range of decision options and their consequences
  - introduction of new alternatives into policy discussion at the different levels
  - for biodiversity-related policies

- for KPI
- for problem definitions
- for connecting biodiversity with other issue areas (e.g. human health)
- focused on practical/actionable knowledge, identifying solutions at different levels and for the different actors, this also includes e.g. assisting local communities in making better use of biodiversity for their wellbeing
- Acknowledges fundamental differences in capacity in different world regions
  - Includes a focus on capacity building (cf. World Meteorological Organization, WMO)
- Funded by governments
  - funding ~ \$5M/year?
  - it should be an ongoing effort
  - It was unclear where it should be housed: DIVERSITAS? UNEP? WHO? IUCN?
- Reporting framework would include possibility for dissenting opinions

#### **Existing models for such a network**

- Elements from the following could be used:
  - EPBRS – European Platform for Biodiversity Research Strategy? (good for identifying common position in a relatively large group, however, issue of selection of representatives)
  - World Meteorological Organization? Especially with regard to capacity building and bringing information together from a large set of different localities in the world
  - International Model Forest Network? Sets up common criteria and then leaves ample leeway for local initiatives to deal with their particular circumstances
  - MA Sub-global? Provides a common conceptual frame, while participants self select and secure their own financial support.
  - others?
- Identifying design options and assessing their strengths and weaknesses could be an interesting topic for research on KPI
- How could such a network be populated?
  - needs political legitimacy
  - participants could be self-selected (e.g. as in MA sub-global assessments)
  - selection could be decentralized, e.g., at national level or even below the national?
  - particular criteria could be used to admit participants

#### **9.4 Group 2-3: “Mechanism on biodiversity knowledge”**

**Mechanisms, or..., mandate:** The third group first of all agreed that “mechanism” is an appropriate term for the process, since this stresses the fact different tasks have to be fulfilled. Its outcomes should be:

- Aim at understanding the role of biodiversity in sustainable development
- A process to respond to emerging and emergency issues (esp. Human health aspects)
- Needs for capacity building: (e.g., identifying GAPS in the capacity of science and in available responses)

- Provision of response strategies

The mechanism would include: assessment processes; knowledge stocktaking and knowledge management; networking (meta-networks- global networks as well as national/regional platforms); outreach activities and dialogue.

**Independence vs. political legitimacy and funding:** The group felt that, in order to attract political legitimacy and funding, a link to governments is needed. The KPI should be a multi-customer process (like the MA), respond to the needs of not only the CBD, integrate and consolidate existing assessments (e.g., GEO, GBO, GIWA, IAASTD<sup>3</sup>) and have appropriate links to UN-bodies. For example, its Secretariat could be attached to UNEP or UNDP, but its board and decision-making would remain independent from those bodies. Funding would realistically at least initially come mainly from governments. A global secretariat and board should be set up first, and then a meta-network built. The governance model could follow the MA-model.

**Process design, network, scales and hierarchies:** Regarding mandate and design, the group looked at the questions of process, mechanism and mandate in an integrated manner. For the process, initially money needs should be met mainly by governments, starting with funding of a secretariat and then building the meta-network. The mechanism should be connected to UNEP/UNDP, but not under it. The governance model should follow the MA-model. A key issue might be discussion of the mechanism in and a mandate from the Biodiversity liaison group which includes the secretariats from the five main biodiversity-related conventions (<http://www.biodiversity.org/cooperation/related-conventions/blg.shtml>). The wider group of conventions should be addresses further: e.g., UNCCD (United Nations Convention to Combat Desertification), marine issues, and others. On what a KPI should do, the group suggested it should:

- provide a thorough assessment of the state of biodiversity loss,
- aim at understanding the role of biodiversity in sustainable development
- provide response strategies
- include both knowledge stocktaking and knowledge management
- respond to emerging and emergency issues (esp. Human health aspects)
- identify the main needs and gaps for scientific capacity building
- effectively reach out to its target audience and induce a thorough dialogue of its outcomes

**Conceptual design:** Concerning the question of participation and how to bring knowledge together, the group felt that the MA conceptual framework would be a good starting point. It however also suggested that a KPI should

- Provide for the interpretation and translation of results from the mechanisms into several languages
- Proactively generate knowledge from several language domains (e.g. by holding workshops in French, Spanish, etc.)
- Not only generate north-south, but also south-south information flows
- Develop an integrated biodiversity science, broadened to consider more holistically ecosystem services

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<sup>3</sup> GEO: Group on Earth Observations, GBO: Global Biodiversity Outlook, GIWA: Global International Water Assessment, IAASTD: International Assessment of Agricultural Science and Technology for Development.

### 9.5 Group 2-4: “Alternative frames”

#### Why biodiversity has “fallen off the table”?

- antagonism between local and global, industrial and community interests
- biodiversity is captured by environmental ministries and not other sectors (energy, agriculture)
- spaces for civil society are reducing
- civil society itself becoming a messy sector

The space for and character of civil society organizations have changed since the 1990s. While the global conferences in the 1990s offered a prominent position to dialogues between NGOs, today there is only place left at side events. NGOs are situated in the middle of different groups, and mainly funded by the private sector.

#### Mandate

- analyze causes of BD loss , especially root causes, what needs to change?
- communicate it: greater visibility
- pointing to how it relates human well-being (health, livelihoods, poverty)
- provide meta-synthesis: integrate chunks of knowledge and data, & analysis and prescription, (macro-economic root causes)
- provide forum for dialogue among different knowledges
- provide independent monitoring of the CBDs work programme implementation
- provide independent monitoring of national implementation and advice, especially linking it to development sectors
- produce and facilitate access to tools and methodologies for others to do these things

The added value of a new body is to bring knowledges together. It should be global but addressing also the regional and local scale. A mechanism should be more prescriptive and have something essential to say to politicians. Since the main problem of CBD is the lack of implementation at the national level, a mechanism has to address this problem. A novel mechanism should offer policy monitoring: assessing which models are working and which are not working, causes of working or not-working models; thus, rather as a societal informing/policy monitoring process as opposed to biodiversity information clearinghouse. But governments are not interested such a “watch dog.”

#### Form

- independent but politically legitimate
- permanent
- periodic assessments
- central coordinating body with national chapters/units
- Example: Amnesty International possible model/World Commission on Dams
- Leadership is important but its forms needs to be discussed

Amnesty International (ai) and Greenpeace differ in the extent to which they sensationalize information. Greenpeace has a tendency to go beyond “pure” science that may be at the cost of their scientific credibility and of the public’s trust. The question of leadership remained controversial: while the Swaminathan Foundation counts as an example of extraordinary leadership, social movements and ai do not want to visible leaders. Although the ai-model appears

to be attractive, human rights and biodiversity differ remarkably: reporting on human rights does not require specialists.

Even in countries that can afford training of respective specialists there is a decline in taxonomy research. This is an inherent problem which all models would have to face. A collaborating network over the whole world is crucial for biodiversity. IUCN is a network but it cannot afford to offend governments due to its governmental linkages.

A body has to address and to include actors from different sectors of society: NGO's, pressure groups, local groups. Art 8j. CBD provides a good model for something that should be done at national level. The World Commission on Dams can be seen as a blue print since it includes members from indigenous groups and the dam industry. Hybrid groups have to avoid tokenisms, balancing representation from north and south and across gender. Traditional knowledge is powerful enough to change the discussion in such a panel.

### **Knowledge systems**

- three systems identified: local/traditional, civil society/activist, modern western
- explicitly ensure that there is no hierarchy among knowledge systems – no tokenism
- tension between privatised and common knowledge (WTO-TRIPS agreement)
- “translation” is a challenge
- different BD issues need different combinations of knowledge (health vs energy)

There are very complex forms of knowledge, e.g. activist knowledge which is a mix of local traditional and modern scientific knowledge. One should be prescriptive in recognising community knowledge. The challenge is how to bring different knowledges together without fusing them? How can different forms of knowledge be considered without affecting their integrity? Local knowledge is more difficult to share because it is site specific, but BD is also site specific. Potential solutions point to decentralizing structures and allowing different knowledges to co-exist.

### **Funding**

- Independent funding – Pew Foundation funding dialogues outside political mandate
- Wilton Park Sustainable Dev. Dialogue
- Private Sector problematic and governmental funding as well.

## **9.6 Discussion on working group results**

After presentation of the groups' work, plenary discussion identified the following **core issues** to be considered in the development of the mechanism:

- Different knowledge systems and national styles need to be respected – different knowledges should be brought together but not homogenised.
- We need a more flexible notion of scale/level because nation states are too rigid a level. Consideration of sub-global landscapes and cross-scale networks is highly relevant here.
- Independence is not automatically created by separation but by keeping an appropriate array of tugs. Separation from outside influences implies isolation. An appropriate environment can help maintain independence while ensuring leverage.

- Democratization of expertise: Measuring implies valuation. As we acknowledge plural values we should not set up in advance the metric – this is part of the output.
- The knowledge production process is as important as the measurement output itself. The mechanism should be ongoing, not one-off, and should have periodic assessments as principal outputs. Precise focus of assessments to be specified.

**Dissent** arose on two questions:

- Should funding come from governments or rather from independent sources?
- Should the mechanism also include the monitoring of the CBD implementation process, of the CBD itself?

## Annex 1: Agenda of the workshop

### Monday, 2 October

Time	Title
11:30	Registration
12:00	<i>Buffet Lunch</i>
13:00-13:30	Welcome and Introduction to the workshop
13:30-14:30	Introduction of participants
14:30-14:45	Presentation of state of play of IMoSEB
14:45-15:15	<i>Coffee break</i>
15:15-15:35	Presentation to set the scene for discussion
15:35-16:45	Discussion
16:45-17:00	<i>Short coffee break</i>
17:00-18:00	Definition of the issues and building of 4-6 breakout groups
19:00	<i>Departure for dinner</i>

### Tuesday, 3 October

Time	Title
9:00-11:00	1 <sup>st</sup> Breakout Group Session
11:00-11:30	<i>Coffee break</i>
11:30-12:00	Plenary: Reporting on discussions of breakout groups
12:00-13:00	Discussion
13:00-14:30	<i>Lunch</i>
14:30-15:00	Plenary: Identifying topics for 2 <sup>nd</sup> Breakout Group Session
15:00-17:00	2 <sup>nd</sup> Breakout Group Session
17:00-17:30	<i>Coffee break</i>
17:30-18:30	Plenary: Reporting on discussions of breakout groups and presentation of results
19:15	<i>Departure for dinner</i>

### Wednesday, 4 October

Time	Title
9:00-10:00	Plenary: Lessons learnt: agreed and disagreed topics, open questions to be discussed, marginalised views
10:00-10:15	<i>Short Coffee break</i>
10:15-11:45	Plenary: Discussion and finalising considerations
11:45-12:00	<i>Short Coffee break</i>
12:00-12:20	Final Statement and further procedures
12:20-13:00	Feed back (on the workshop and its results)
13:00	<i>Lunch</i>

## Annex 2: List of participants

### **Steinar Andresen**

Senior Research Fellow at FNI  
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### **Didier Babin**

Executive Secretary of IMoSEB  
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### **Gordana Beltram**

Slovenia's National Focal Point to the Convention on Biological Biodiversity (CBD).

### **Tewolde Berhan Gebre Egziabher**

General Manager of the Environmental Protection Authority of Ethiopia  
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### **Peter Bridgewater**

Secretary General of the Convention on Wetlands (Ramsar, Iran, 1971)  
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### **Chimere Diaw**

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### **Arturo Escobar**

Professor of Anthropology at the University of North Carolina  
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### **Ashish Kothari**

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### **Jeffrey A. McNeely**

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## Annex 3: Questionnaire and compiled answers

### Questions:

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1. What are the specificities of “biodiversity” and “biodiversity loss” that make it different and similar to other global environmental problems, in particular to climate change?

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2. What are the main questions and issues with regard to biodiversity that should be and could best be addressed by scientific assessments/expert or advisory bodies at a) global b) regional/sub-regional, c) national and d) local level?

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3. Which are relevant functions that should be and could best be addressed by a scientific assessment/expert or advisory bodies at a) global b) regional/sub-regional, c) national and d) local level?

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4. Which of these issues/functions has not been addressed sufficiently or appropriately by previous and current scientific assessments/advisory bodies, or has at all been neglected?

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5. What are particular challenges a scientific assessments/expert or advisory bodies would have to meet?

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6. Please, identify three issues/ topics to be discussed at the Leipzig workshop?

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## Participants’ responses to questionnaire – synthesis

The following synthesis of the responses to the questionnaire provides an overview of the issues and perspectives that have been put forward by 10 participants.

We tried to select the full spectrum of aspects that have been raised, but certainly any synthesis is a reduction. We summarized the answers to the first four questions. Where possible we used the original wording. For the final question, where we asked for topics for discussion we present the original answers. This document was served as an initial input for debate.

### **1. What are the specificities of “biodiversity” and “biodiversity loss” that make it different and similar to other global environmental problems, in particular to climate change?**

#### Common characteristics of biodiversity change and climate change

- the qualification as a globally relevant risk to the environment;
- the same root causes ...an unsustainable path of ‘development’;

- the centrality of science to the determination of good policy;
- the existence of an international legal framework;
- the need to keep in mind that assessment design is as much about creating the institutional infrastructure of global governance as it is about getting good science;

## Specific characteristics of biodiversity change

### Complexity

- Complexity of biodiversity per se and of drivers and consequences of biodiversity change. It cannot be measured by the same kind of simple indicators used in the field of e.g. climate change and ozone layer depletion.
- Science is uncertain and to some extent disputed by a magnitude more in re biodiversity as in re climate change. ... Thus, both diagnosis as well as a feasible cure seems even more difficult here.

### Impact

- It is often said that the crisis of diversity is the crisis of life itself – including human life. While this could also be said of climate change in some senses, the statement seems to apply more powerfully to the loss of biodiversity.
- At a basic biological and philosophical level, one can say that if all human and non-human life is based on difference and diversity the erosion of diversity is, in the last instance, the erosion of life possibilities. At a more practical level, biodiversity loss often affects negatively ecosystems and peoples who have maintained precisely the dynamics of the virtual (potentiality) most alive. It also affects them at their most fundamental: their biological and cultural integrity, they biological and cultural autonomy.

### Conceptualisation

- Biodiversity is a concept rather than a phenomenon, making it much more difficult than climate change to quantify in policy-relevant terms. Climate change is a clear and simple concept, while biodiversity is abstract, has multiple definitions, and is subject to confusion even by experts.
- When we talk about biodiversity loss, we can never be sure that we have a shared perception of what we are discussing. Depending on the context and the speaker, “biodiversity” is used to mean the diversity of living things; the numbers of genes, species, and habitats; a synonym for “nature”, a synonym for “life on Earth”; a vision of the complex living world involving living things, their activities and properties, and their interactions; a notion mixed with human well-being; the basis of ecosystem services; an object of scientific study; a moral issue; or all of these and more.

### Public Perception

- There is little doubt most people understand the ozone hole and its problems, and now with more dramatic variability climate change – yet no-one has witnessed a species going extinct, or even becoming endangered, and thus the issue is more difficult for the public to grasp.

### Relevance of sub-global and local scales

- Unlike climate change, biodiversity loss is often a very local and site-specific phenomenon in its manifestations and its impacts.
- This interaction among biodiversity and environmental factors happens at all levels ranging from local ecosystems through biomes to the whole of the biosphere.
- Responses to biodiversity loss are more national and local in nature than responses to e.g. climate change.
- Climate is a common good. Biodiversity is a national asset.
- There is a higher recognition of the value of local biodiversity knowledges and expertise.

### Tensions and controversies

- “There are no differences, but we have made some” vs. “Climate change and biodiversity have remarkably little in common, and the challenges they pose require very different approaches.”
- “Biodiversity change is a global issue, and we must address it as such” vs. “biodiversity loss is often a very local and site-specific phenomenon.”
- “The problems facing biodiversity are not primarily scientific, though of course the solutions must be based on science.” vs. “Due to the increase of scientific evidence, biodiversity will become more and more relevant... The scientific evidence just starts to occur in biodiversity and tremendous needs in scientific expertise on biodiversity are expected in the next years.”
- “Common heritage of humankind” vs. “national biological resource”

### Questions for further discussion

- How to address the cross-scale character of biodiversity change?
- Do we need a clearer, less abstract conceptualisation of biodiversity?
- To what extent can examples like the IPCC be used as a blue-print for a science-policy interface for biodiversity?

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## **2. What are the main questions and issues with regard to biodiversity that should be and could best be addressed by scientific assessments, expert or advisory bodies at global, regional/sub-regional, national and local level?**

### General questions and issues

- What are the root causes of biodiversity loss? The system that generates loss of diversity needs to be conceptualized in more complex ways to include the socio-economic and political dimension.

- What are the different impacts of different human activities at different scales, on biodiversity?
- At any given site, how do local and national/global causes of biodiversity loss relate to each other, and how does one give relative weight to these different causes so as to know how to prioritise conservation action?
- What are the reasons for the lack of sensitivity and concern on the part of global and national decision makers and society?
- What decision opportunities are implicated by issues associated with biodiversity? With respect to these decision opportunities, what are available but also feasible and realistic decision alternatives?

### Issues according to levels

Issues suggested to be addressed at *all* levels:

- the role of biodiversity in supporting ecosystem services,
- the economic values of biodiversity and of biological resources,
- identification of sustainable patterns of consumption and production
- invasive species,
- institutional success and failure,

Issues suggested to be addressed particularly at the *global* level:

- distributional effects of biodiversity loss,
- trade and the exportation and importation of ecological footprint,
- marine biodiversity,
- global pollution
- GMOs,

Issues suggested to be addressed particularly at *regional/sub-regional* levels:

- Building of scientific and financial capacity
- assessing priorities within a region or sub-region, and
- ways of identifying trans-boundary biodiversity issues among neighbouring countries,
- trans-boundary air and water pollution,
- trade

Issues suggested to be addressed particularly at the *national* level:

- approaches to implementing the relevant articles of the CBD,
- national vision, goals and publicity for key issues,
- social values of biodiversity,
- biodiversity and livelihoods,
- land use planning,

Issues suggested to be addressed particularly at the *local* level:

- means of sharing lessons learned from local levels from different countries,
- support for the legitimate role that local communities play in biodiversity conservation and sustainable use.
- existence, future options, bequest values of biodiversity;

- citizen science and participation;
- rehabilitation, recovery and restoration;
- biodiversity and livelihoods;
- education, attitudes and behaviour;
- predictive capacity.

### Questions for further discussion

- Since assessments vary strongly in scope, scale and methodology, what is the comparative advantage of a particular scale?
- At which scales is a new assessment needed?
- What can we learn from the Millennium Ecosystem Assessment?
- What is the relation between different scales and what measures exist to integrate different the levels?
- How do local peoples and their organisations conceptualize conservation? What knowledge is most important for them?
- What is the role of scientists and their understanding of themselves?
- What is the relationship between biological and social sciences and traditional knowledge for biodiversity issues?

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### **3. + 4. Which are relevant functions that should be and could best be addressed/assumed by a scientific assessment/expert or advisory body?**

- to mobilize and bring together relevant but fragmented knowledge/ expertise;
- to provide early warning on likely trends linking society and biodiversity.
- to evaluate, synthesize and provide information according to the addressees' needs;
- to put at decision-makers disposal tools, techniques and know-how to better assess relevant policies;
- to bring together scientists and politicians, facilitating dialogue between them;
- to provide options for negotiation in multi-lateral agreements;
- to address issues that some governments may find uncomfortable, being policy prescriptive;
- to promote networking and community building among policy-engaged scientists and experts;
- to bring in perspectives and positions from Southern scientists and local knowledges and rationalities for conservation;
- to support and orient research in the South;
- to raise public awareness, to create concern; to strengthen citizen capacity for critical reflection on policy choices;

Paris Declaration

Provide scientifically validated information

Identify priorities and recommendations for biodiversity protection

Inform the relevant international conventions, especially the CBD and their parties

## Tensions and controversies

### The relevance of scale for function:

- Pos. 1: Scale and level matter. Functions differ in relation to the respective level and context (of research and decision making). Different types of information are needed and particular functions can be assumed better at a specific level.
- Pos. 2: Since assessments at different geographical levels are inter-related and even inter-dependant, functions are therefore in principal the same and can benefit from each other.

### The role in politics:

- Pos. 1: Advisory bodies act as disinterested arbiters offering information and a forum for stakeholders
- Pos. 2: Advisory bodies are necessarily playing a political role by placing science into the context of decision making.

### Unifying or diversifying the practice of assessment:

- Pos 1: Unity – to come to an agreement on the existing knowledge between all the scientific community and experts
- Pos. 2: Pluralism – the need for encouraging tolerance and acceptance of multiple epistemic frameworks, considering disciplines, local knowledge and competing policy styles

## Questions for further discussion

- What is the relationship between function and scale/ level?
- At what scale and level is a new panel needed and what function should it fulfill?
- How to synergize traditional and modern knowledge/expertise?
- What is the political role of the panel?
- How to integrate policy issues without setting the stage for a politicization of the assessment process?

## **5. What are particular challenges a scientific assessment/ expert or advisory body would have to meet?**

### **Large agreement on criteria to be met:**

- political attention and political buy-in
- political credibility and legitimacy
- scientific credibility and integrity
- sustainable funding stream

### **The trade-offs in pursuing the competing criteria**

- Challenges at the interface between science and politics: balancing trade-offs between scientific credibility and political legitimacy. Expert bodies are addressing different audiences – example: obtaining legitimacy in the eyes of its client, while maintaining credibility in the eyes of its other stakeholders.
  - political relevance by including socio-economic and development issues vs. pursuing a more limited but coherent focus on some aspects of this broad topic only
  - warranting political legitimacy by involvement of governments and non-governmental organizations vs. the independence as a prerequisite for scientific credibility and for the quality of the scientific information delivered

### **Questions for further discussion**

- What are the products to be delivered? Who are the clients?
- How to meet the information needs expressed by decision-makers?
- Who participates? How to balance as means to warrant legitimacy; in terms of opinions, expertise, forms of knowledge, scientific disciplines, social and geographical regions.
- With what charge or mandate? Who determines the rules?
- What are the needs, reasons and arguments for a science-policy interface for biodiversity?
- What are the user/clients of such a science-policy interface? [Is its audience mainly government policy makers, scientists, the general public, the private sector, NGOs, social movements, local people?]
- What is the role of science and scientists in biodiversity governance?
- What is the relationship between biological and social sciences for biodiversity issues?

## 6. Topics to be discussed at the Leipzig workshop

### Needs

What is it that we assume is happening to biodiversity that needs better understanding?

What can be the added value to existing bodies (knowledge, network) to raise biodiversity at the top of the worldwide issues (as climate change, world trade,...)?

### Knowledge types

How local, national, regional and international advice might be integrated and delivered

Discuss the need, or not, of engaging with local conceptions of conservation (local political ecology frameworks), particularly those by social movements, as important elements in the KPI.

How to increase scientific competence and involvement from the South?

How can assessments promote epistemic tolerance and pluralism—i.e., recognize and facilitate the expression of divergent styles of reasoning about global biodiversity risks in governing forums?

How can assessments enhance epistemic dialogue and exchange—i.e., encourage efforts to bring divergent styles of reasoning into dialogue and exchange as well as cross-cutting reflection and evaluation?

How can assessments orchestrate cross-scale epistemic jurisdiction—i.e., strengthen dialogue and exchange, as well as appropriately delegating authority, across scales of assessment and governance?

### Analysis and recommendations

What role should assessments have in characterizing problems?

How to develop a policy-relevant biodiversity metric?

What role should assessments have in characterizing options for action?

### Linking with other issues

Discuss the relation between biodiversity and food security/food autonomy in the context of particular projects; given that this relation is privileged today by local organizations at least in some biodiversity-rich regions, it deserves particular attention. This is warranted also if one thinks that food autonomy is a strategy of resistance against neo-liberal market-based approaches to conservation and intellectual property rights that these groups see as inimical to conservation.

How to place biodiversity and biodiversity loss in the context of other global changes, including climate, trade, human demographics, security, technology development, and economic growth (and others)?

### **Communicating to decision-makers, stakeholders and to the public**

Similarly, how can such assessments be made more accessible to decision-makers, to influence and help them in taking appropriate decisions?

What mechanisms can be developed and put in place to improve knowledge of changes to biodiversity and forward this information to governments and other key stakeholders?

How can scientific information on biodiversity change be communicated to the wider public in an authoritative and non-sensationalised way?

What knowledge would be provided to whom internationally?

### **Advocacy**

What is the proper role of political advocacy (overt or implicit) in assessments?

How can assessments build critical capacity for policy reasoning—i.e., strengthen citizen capacity across the globe to formulate and reflect critically on reasoned justifications for global policy choices about biodiversity?

How can scientific assessments (including those centred around traditional knowledge/expertise) be made more accessible to the lay public, helping to empower them with adequate knowledge on which to take action?

### **Lessons learnt from on-going processes**

It has to be some attention to 'lessons learned' from other environmental regimes and the role science has played there

How to fill gaps of other on-going processes, and learn from their strengths and weaknesses, to bring significant new resources into monitoring the status and trends of key components of biodiversity and responding effectively to these.

### **Governance Structure**

Should it be a panel of experts with meeting structures, secretariat etc. like the IPCC?

How could it be possible to bring this added value? and Who can do it? Do we need a new body to carry this change?

Should it be a more loose and flexible structure inspired by the Millenium Ecosystem Assessment?

Should it be inter – or non-governmental?

### **External Structure – Policy Environment**

How can a more favourable policy environment be created to encourage independent scientific assessments and the use of these assessments for policy-making and action programmes?

Relations with the CBD and other biodiversity related conventions and their scientific bodies. Should it be established inside or outside the CBD?

Relations with UNEP and its work on more generally assessing the state of the global environment.

The role of UNEP... I know there have been proposals to enhance the role of UNEP in this context.

### **Local perspectives**

Discuss the need, or not, of engaging with local conceptions of conservation (local political ecology frameworks), particularly those by social movements, as important elements in the KPI.

Local community empowerment

Making the global wealth, power and expertise sensitive enough to the peculiarities of the local community and ecosystem so that it both refrains from inadvertently destroying it, and helps it become more effective.

Education, globalization and the inadvertent erosion of local (traditional) knowledge and responsibility for the local ecosystem.

### **Science as a political force**

Discuss the changed understanding of itself that could make of science (of scientific assessment/expert or advisory bodies) a more effective force in the policy making world. What views of “science” and “policy” need to change? Why does this change not happen now? Who/what needs to change? How can scientists make society/policy-makers more sensitive to this problem? How can they state the lack of ethics that exists in this area?

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