



# Capacity Building Workshop – National Ecosystem Assessments Using the IPBES Process and Approaches in the East Africa Region

## Workshop Report

*24th – 28th August 2015*

*UNDP Regional Service Centre for Africa, Addis Ababa, Ethiopia*



**A Sub-Global Assessment Network workshop convened by UNEP-WCMC, in collaboration with the Ethiopian Biodiversity Institute (EBI), and the UNEP Regional Office for Africa (UNEP ROA).**

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Government of Norway





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## Executive Summary

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This report presents proceedings from a capacity building workshop for assessment practitioners from the East African region. The workshop illustrated the value and rationale for undertaking a national ecosystem assessment, provided new ideas about how a national ecosystem assessment can be used to instigate policy and behavioural change, and provided information on how national ecosystem assessments can contribute to assessments under IPBES. The five-day workshop ran from the 24<sup>th</sup> to 28<sup>th</sup> of August, 2015, and was held in Addis Ababa, Ethiopia. Thirty-one participants attended from 5 countries from the East Africa region (Ethiopia, Kenya, Rwanda, Tanzania, and Uganda). The participants represented both policy-makers and practitioners, and came from different government departments, Ministries of the Environment, regional organisations, universities/research institutes, and NGOs.

The workshop was convened by the SGA Network Secretariat and the Ethiopian Biodiversity Institute (EBI), with support from the UNEP Regional Office for Africa (UNEP ROA), and was funded by the Norwegian Government.

**Day One** of the workshop was officially opened by Dr Gemedo Dalle, Director of the Ethiopian Biodiversity Institute, and Gerd Trogemann, Deputy Director at the UNDP Regional Service Centre for Africa, welcomed workshop participants to Addis Ababa. There was a round of introductions from participants and facilitators, followed by an interactive self-assessment exercise to evaluate participants' personal understanding of ecosystem assessments, and their institutions/countries readiness to carry out an assessment. The aims and activities of the SGA Network, as well as an introduction to IPBES assessments were also provided.

**Day Two** covered the Ecosystem Assessment Framework, which provides a step-by-step guide to undertaking assessments. The Scoping Stage and part of the Design Stage from the Ecosystem Assessment Framework were also covered through presentations, exercises and discussions. The Scoping Stage highlighted the importance of defining the scope and context of an assessment, consulting with stakeholders, and developing policy-relevant questions to guide the assessment process. The Design Stage focused on key design considerations such as the governance structure for an assessment, developing a work plan, and funding considerations.

**Day Three** began with an introduction to conceptual frameworks in assessments and the IPBES conceptual framework. The afternoon focused on the Implementation Stage of the Framework, which covered data requirements, indicators, and assessing the status and trends of ecosystems and their services. Day three concluded with presentations and exercises on the use of scenarios in an ecosystem assessment.

**Day Four** covered how to assess the different values people place on ecosystems and their services, and how to evaluate policy response options. The peer review process and an introduction to ecosystem assessment tools were also covered. The day concluded with an exercise that allowed countries (Ethiopia, Kenya, Rwanda, Tanzania, and Uganda) to begin planning for a national ecosystem assessment.

**Day Five** covered the Communication and Outreach Stage of the Framework. Participants designed communication strategies for target audiences and developed communication outputs to communicate key messages and findings. Capacity building in relation to IPBES, and the identification of capacity building needs and opportunities was also covered. Lastly, the self-assessment exercise was repeated, and the day concluded with workshop reflections and closing remarks.

## 1. Background and Rationale for Workshop

The findings of the Millennium Ecosystem Assessment (MA) confirmed the increasingly important contributions of ecosystem services to human well-being. Following the release of the MA in 2005 many sub-global assessments (SGAs) have been undertaken using the MA methodology or an alternative approach, such as The Economics of Ecosystems and Biodiversity (TEEB). Developing individual and institutional capacity is, however, essential for many countries and regions before they are able to carry out their own ecosystem assessments.

Assessments are considered important for achieving the goals of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). In a meeting jointly convened by the Governments of Brazil and Norway in 2011 it was recognised that: i) there was potential to build on work already developing in the follow-up to the MA and TEEB; ii) SGAs have the potential to deliver meaningful results at the appropriate scale to decision-makers; and iii) there is already an SGA network in place that can help support countries and improve access to existing experience and tools.

Under IPBES, capacity building has been highlighted as an important component of the first work plan that was agreed in December 2013. Deliverables 1(a) *Prioritisation of capacity needs and matching with resources*, and 1(b) *Development of capacities to participate in IPBES*, from the work plan speak particularly strongly to the objectives of this workshop. In addition, it has been recognised that the assessment process itself is just as important as the product, as it offers an opportunity to develop in-country capacity. Therefore, regional assessments have a key role to play in meeting these capacity building goals.

The East Africa region is a biologically, economically and sociologically diverse region. Policy challenges in the region include rapidly urbanising nations and the need to raise the standard of living and increase access to resources without degrading the diverse ecosystems, which contribute to the well-being of the population, through the delivery of ecosystem services. This workshop offers an opportunity to support assessment capacity building efforts within the region, and in so doing, assist the region to engage with IPBES as well as to meet its own environmental goals.

### 1.1 Workshop Objectives and Structure

The Secretariat of the SGA Network, in collaboration with the Ethiopian Biodiversity Institute (EBI), and with support from the UNEP Regional Office for Africa (UNEP ROA), brought together assessment practitioners from the East Africa region.

The objectives of the five-day workshop were to:

1. Generate understanding of the basic concepts of an ecosystem assessment and to illustrate both the value and rationale for undertaking one;
2. Gain new ideas and inspiration about how a national ecosystem assessment can be used to instigate policy and behavioural change;
3. Provide information on how national ecosystem assessments can contribute to assessments under IPBES;
4. Introduce a variety of tools and data for ecosystem assessments; and
5. Contribute to a preliminary capacity needs assessment that could feed into a proposal for supporting countries to undertake ecosystem assessments as part of efforts to mainstream biodiversity and ecosystem services into their development strategies.

This workshop was generously supported by Norwegian Government funds.

Thirty-one participants from the East African region attended the workshop; attendees were from a range of government, intergovernmental, and academic institutions. In total, 5 countries were represented: Ethiopia, Kenya, Rwanda, Tanzania and Uganda. Among participants from Ethiopia were an IPBES multidisciplinary expert panel (MEP) member and the IPBES Focal Point.

The workshop was run as a series of interactive sessions based upon a set of fictional countries. SGA Network workbooks and exercises were used to work through steps in the ecosystem assessment process and apply guidance from the draft IPBES guide for assessments on how to undertake a national ecosystem assessment that would be consistent with an IPBES assessment. Time for feedback and exchange of experiences was allocated at the end of each session in the form of plenary discussions or as group-to-group report back (market place style).

The agenda for each day focused on the following:

- **Day One:** Opening sessions, participants' self-assessment and expectations from the workshop, and introductions to the SGA Network and IPBES.
- **Day Two:** Introduction to the Ecosystem Assessment Framework, and working through the Scoping and Design Stages of the Framework.
- **Day Three:** Conceptual frameworks and the Implementation Stage of the Ecosystem Assessment Framework.
- **Day Four:** Finalising the Implementation Stage, introducing ecosystem assessment tools and beginning the assessment process in participants' countries.
- **Day five:** Communication and Outreach Stage, capacity building and workshop reflections.

## Day 1

### 2. Opening Session

#### 2.1 Opening address, welcome and introductions

Dr Gemedo Dalle, the Director of the Ethiopian Biodiversity Institute (EBI), opened the workshop; and Gerd Trogemann, Deputy Director of the UNDP Regional Service Centre for Africa welcomed the participants from the East Africa region to Addis Ababa.

Opening remarks were given by John Tayleur from the SGA Network Secretariat. Then, an overview of the workshop's objectives were given by Matthew Ling from the SGA Network Secretariat; outlining that the various stages of the ecosystem assessment process in the context of IPBES assessments would be discussed.



**Dr Dalle delivers the opening address.**

The opening addresses were followed by a round of introductions from both participants and facilitators, during which participants were asked to name which ecosystem service they would like to be and the reasons why. The group of participants represented a range of government departments, Ministries of the Environment, regional organisations, universities/research institutes, and NGOs (see Annex 1 for the Participants List).

#### 2.2 Exercise: Self-assessment

The workshop participants undertook an interactive self-assessment exercise, which aimed to evaluate how they rated their personal understanding of ecosystem assessments, as well as how prepared their individual institutions and countries were to carry out an ecosystem assessment. The participants were asked to form a 'human histogram' by positioning themselves along an imagined axis, scaled from high to low, to depict their answers. The four questions asked and a summary of their responses can be found in **Table 1**. The self-assessment exercise was repeated at the end of the workshop, and a comparison of the responses can be found in section 13.2 of this report.

**Table 1. Summary of self-assessment results.**

Question	Responses
<b>Q1: Do I understand what an ecosystem assessment is?</b>	<ul style="list-style-type: none"><li>Participants placed themselves along the imagined axis, with the majority grouped in the middle of the axis.</li></ul>
<b>Q2: How much information is available in my country to underpin an ecosystem assessment?</b>	<ul style="list-style-type: none"><li>Only five participants placed themselves at the high end of the imagined axis as they considered there to be a lot of information in their respective institution/country.</li><li>Most participants placed themselves between the middle and the low end of the axis.</li></ul>
<b>Q3: How ready is my institution for implementing or contributing to an assessment?</b>	<ul style="list-style-type: none"><li>Many participants considered their institutions to be ready to implement or contribute towards an assessment.</li><li>Most participants placed themselves between the high end and the middle of the axis.</li></ul>

<b>Q4: How confident am I in taking an assessment forward in my country?</b>	<ul style="list-style-type: none"> <li>• Five participants indicated they felt confident to undertake an assessment in their respective countries</li> <li>• Most participants placed themselves between the middle and the low end of the scale.</li> </ul>
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### 2.3 Exercise: Expectations of participants

Following an overview of the workshop’s agenda and aims, participants were asked to express their expectations of the workshop and what they hoped to achieve by attending. Key themes are summarised in **Table 2**.

**Table 2. Overview of what participants expected or wanted to achieve by attending the workshop.**

Theme	Expectations
IPBES	To understand: <ul style="list-style-type: none"> <li>• process, roles and functions of IPBES</li> <li>• how to conduct an IPBES assessment</li> <li>• the difference between IPBES assessments and other assessment processes</li> </ul>
Ecosystem assessments	To learn about: <ul style="list-style-type: none"> <li>• what an ecosystem assessment is</li> <li>• the difference between an ecosystem assessment and other environmental assessments (e.g. EIA)</li> <li>• how to conduct an ecosystem assessment</li> <li>• tools and frameworks</li> <li>• identifying and developing indicators</li> <li>• terms of reference</li> <li>• communicating ecosystem assessment results to influence policy and decision-making</li> <li>• financing an ecosystem assessment</li> <li>• budget planning</li> </ul>
Share experiences	<ul style="list-style-type: none"> <li>• networking</li> <li>• exchange experiences, best practices and challenges</li> </ul>

## 3. Setting the Scene

### 3.1 Introduction to the SGA Network

To set the scene, Matthew Ling from the SGA Network Secretariat provided an introduction to the SGA Network ([www.ecosystemassessments.net](http://www.ecosystemassessments.net)). The presentation included the network’s history, objectives, activities, and how it aims to promote and facilitate improved capacity for undertaking and using assessments. The participants were also invited to join the SGA Network.

## 4. IPBES Assessments

### 4.1 Introduction to IPBES, its functions and work programme

Prof. Sebsebe Demissew, IPBES MEP member, gave an introductory presentation on IPBES. This presentation covered the Platform’s organisation, functions, its 2014-2018 work programme, the IPBES conceptual framework, and how assessments fit into the Platform’s work programme. The IPBES objectives and deliverables were also presented.

Participants from the different countries in the region took the opportunity to comment that there is a lack of communication between their organisations and their respective IPBES National Focal Points.



**Prof. Sebsebe Demissew provides an introduction to IPBES, its functions and work programme.**

#### **4.2 UNDP's role in IPBES (BES-Net)**

Jessie Mee (UNDP) then delivered a presentation on the role of UNDP in IPBES and provided an introduction to the Biodiversity and Ecosystem Services Network (BES-Net). The presentation provided information about the key elements of BES-Net, and how BES-Net aligns with IPBES thematic and methodological work, and capacity building priorities.

BES-Net was developed by UNDP in response to the IPBES request to support its capacity building efforts. Its vision is to promote dialogue among scientists, policy-makers and practitioners, in order to build capacity for sustainable management of biodiversity and ecosystem services worldwide. BES-Net supports face-to-face capacity building activities, and national and regional policy/science/practice thematic dialogues. The BES-Net web portal, to be launched in December 2015, is an online networking, learning and collaboration platform for the three relevant communities (policy-makers, scientists and practitioners). The portal will serve to promote knowledge sharing, support policy-making, and to operationalise the matchmaking facility.

There were many participant questions in regards to what BES-NET is. A number of participants were particularly interested in knowing about the differences between IPBES and BES-NET.



Jessie Mee presents on UNDP's role in IPBES (BES-Net).

#### 4.3 Introduction to the IPBES Guide to Assessments

Next, Prof. Sebsebe Demissew introduced another IPBES deliverable, the IPBES Guide to Assessments (deliverable 2(a)). The aims of the guide are to: 1) create a 'roadmap' focusing on key elements for an IPBES assessment; 2) ensure consistency across IPBES assessments; 3) address practical, procedural, conceptual and thematic aspects of assessments; and 4) take into account different visions, approaches and knowledge systems in ecosystem assessments. The guide was developed for assessment practitioners that may undertake IPBES assessments, or IPBES inspired assessments at smaller scales. It was emphasised that the guide is not prescriptive and that assessment practitioners could use this guide as a 'roadmap' when undertaking an assessment within the context of IPBES.

Then, Nadine Bowles-Newark from the SGA Network Secretariat provided an overview of key IPBES resources, such as guidelines, strategies, approaches, and tools that could be useful for assessment practitioners. Information on the IPBES Catalogue of Assessments (<http://catalog.ipbes.net/>) was also provided. The Catalogue is a repository of assessments of ecosystem services and biodiversity from global to sub-national scales, which currently includes thirty-four assessments from the African region.

#### 4.4 Exercise: What is an ecosystem assessment?

To set the scene, Matthew Ling asked participants to write down their definition of an ecosystem assessment. The different definitions provided by participants were shared in plenary, and then background information on the definition and classification of ecosystem services was presented by Nadine.

An ecosystem assessment is a social process which establishes a scientific connection between environmental issues and people. Ecosystems assessments are critical evaluations of knowledge, neither original research nor a literature review, but the findings of science and other knowledge systems brought together on the request of governments and other stakeholders. They involve the analysis, synthesis and critical judgement of information undertaken by experts. Ecosystem assessments ultimately act as means for decision-support as they respond to information needs, highlight trade-offs, model plausible future scenarios, and engage decision-makers.

#### 4.5 *What is an IPBES assessment?*

After an introduction to ecosystem assessments, assessments in the context of IPBES were outlined. The IPBES conceptual framework and the basic features of credibility, legitimacy and relevance were emphasised, as well as the range of scales in which IPBES assessments may be conducted (i.e. global, regional, thematic and methodological).

#### 4.6 *UNEP Ecosystem Programme*

Day 1 concluded with a presentation by Levis Kavagi, Regional Coordinator of Ecosystems and Biodiversity at UNEP. Levis provided a useful update on how UNEP-ROA is organised, including its sub-regional offices. UNEP is moving away from a global approach to a more country-led one, but all arranged into seven sub-programmes, one of which is ecosystem management. The ecosystem management sub-programme aims to promote an ecosystem management approach to restore ecosystems, and to integrate ecosystem services into development planning and investment decision-making.

## Day 2

### 5. Introduction to the Ecosystem Assessment Framework

Following a recap of Day 1, Day 2 began with an introduction to the Ecosystem Assessment Framework (Figure 1). Nadine outlined the key stages of the Framework: the Scoping, Design, Implementation and Communication, and Outreach stages, all of which are underpinned by active stakeholder engagement. The workshop participants were then introduced to their respective fictional countries: Simbala, Sengoto, Kifarique, Swalayo and Kibokia. These countries served as the breakout groups throughout the workshop. Participants were asked to put themselves in the shoes of Thandie Mbali, a fictitious scientific advisor from the Ministry of Environment (MoE) of their fictional country. To set the scene, the participants were presented with the following scenario: Thandie, having recently attended an SGA Network capacity building workshop on *undertaking ecosystem assessments*, is seeking to undertake an ecosystem assessment to address many of the environmental, social, political and economic problems facing her country.

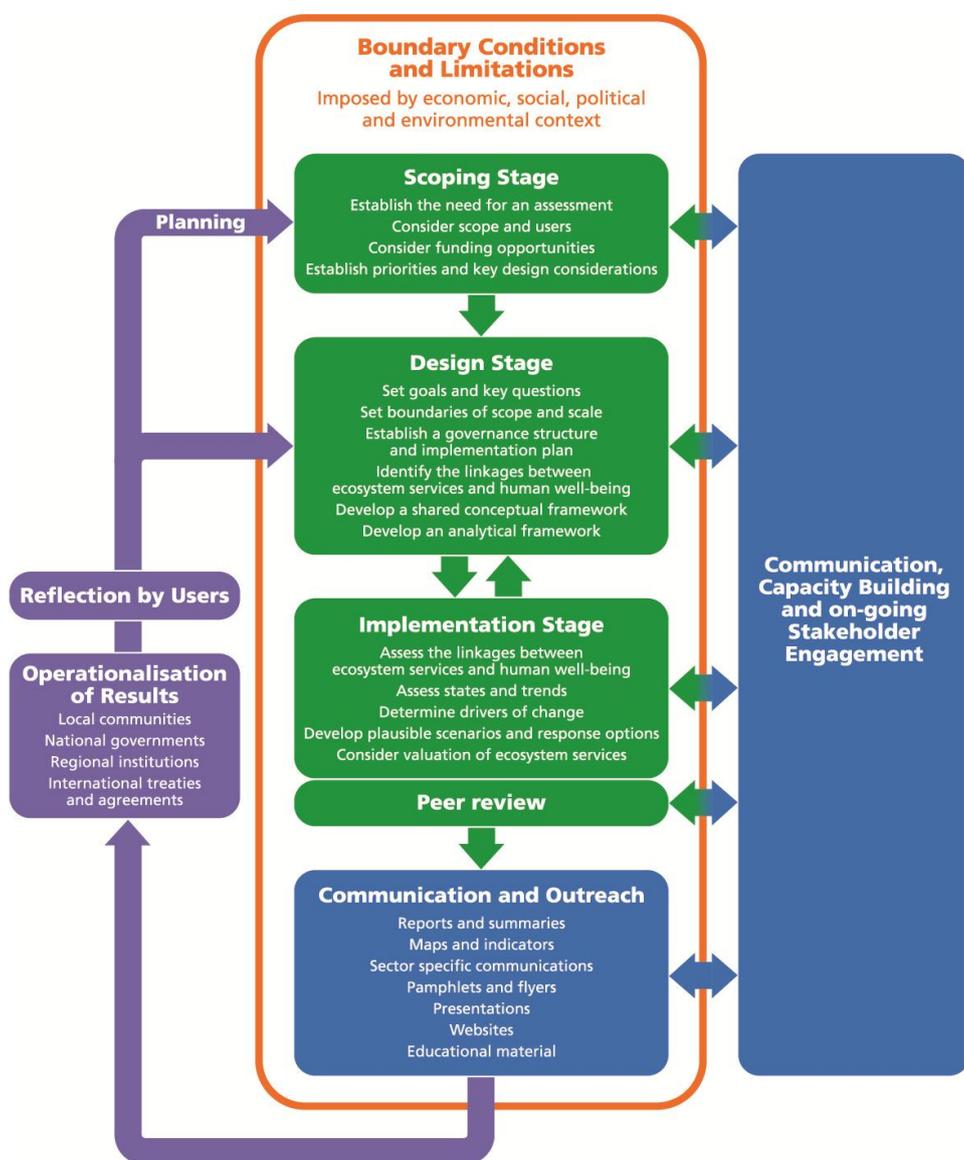


Figure 1. The Ecosystem Assessment Framework.

## 6. The Scoping Stage

Next, Nadine introduced the scoping stage which explores how and why an ecosystem assessment might be undertaken. The three main components of this stage were outlined:

1. Determining the need for an assessment;
2. Defining the key questions the assessment will be designed to answer; and
3. An initial examination of potential design constraints.

The importance of understanding the environmental, social and economic context, and how people might be affected was emphasised. The scoping stage is the starting point to determine user needs, evaluate stakeholders' priorities, and secure buy-in from stakeholders. It was also stressed that ecosystem assessments should be demand driven as this ensures their relevance to end-users.

### 6.1 Exercise 1.1: Determining the need for an assessment

Participants were asked to read their Country Fact File documents, and to discuss the most important circumstances and issues (economic, political, social, and environmental) in their fictional country, and to identify the different groups of people who may be affected. Participants were also asked to consider which stakeholders/users should engage in a planning meeting for a potential ecosystem assessment, and to discuss how an ecosystem assessment could meet the needs of different stakeholders. An overview of the answers provided can be seen in **Table 3**.

**Table 3. Overview of answers provided for Exercise 1.1.**

Circumstances & issues	People affected	Stakeholders to include	How an ecosystem assessment could help them
<p>Economic</p> <ul style="list-style-type: none"> <li>• Fluctuation of commodity prices</li> <li>• High dependence on subsistence farming</li> <li>• GDP decline</li> </ul> <p>Political</p> <ul style="list-style-type: none"> <li>• Insecure land tenure rights</li> <li>• Marginalisation of indigenous groups</li> <li>• Decentralised governance</li> </ul> <p>Social</p> <ul style="list-style-type: none"> <li>• Overpopulation</li> <li>• Migration</li> <li>• Urbanisation</li> <li>• Unemployment</li> <li>• Cultural diversity</li> </ul> <p>Environmental</p> <ul style="list-style-type: none"> <li>• Biodiversity loss</li> <li>• Endemic species decline</li> <li>• Degradation of natural habitats</li> <li>• Flooding</li> </ul>	<ul style="list-style-type: none"> <li>• Indigenous communities</li> <li>• Local communities</li> <li>• Conservation groups</li> <li>• Private companies</li> <li>• Farmers</li> <li>• Fishermen</li> <li>• Mining sector</li> <li>• Tourism industry</li> <li>• Resource users</li> </ul>	<p>Central Government</p> <ul style="list-style-type: none"> <li>• Ministry of Environment</li> <li>• Ministry of Economic Development and Trade</li> <li>• Ministry of Tourism</li> <li>• Agriculture Department</li> </ul> <p>Regulating Agencies</p> <ul style="list-style-type: none"> <li>• Water</li> <li>• Protected Areas</li> </ul> <p>Local Government</p> <p>NGOs</p> <ul style="list-style-type: none"> <li>• Conservation organisations</li> </ul> <p>Private Sector</p> <ul style="list-style-type: none"> <li>• Timber companies</li> <li>• Mining companies</li> </ul> <p>Civil Society</p> <ul style="list-style-type: none"> <li>• Indigenous groups</li> <li>• Local communities</li> <li>• Farmers union</li> <li>• Trade unions</li> </ul> <p>Media</p>	<ul style="list-style-type: none"> <li>• Identify trade-offs between economic growth and biodiversity loss</li> <li>• Value ecosystem services</li> <li>• Gain knowledge of resource potential</li> <li>• Inform land-use planning</li> <li>• Inform policy-makers, decision-makers and regulatory agencies</li> <li>• Identify sustainable agricultural practices</li> <li>• Inform sustainable tourism strategies</li> </ul>

<ul style="list-style-type: none"> <li>• Deforestation</li> <li>• Soil erosion</li> <li>• Well established protected areas</li> <li>• Biodiversity hotspot</li> </ul>			
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## 6.2 Consulting with stakeholders

John Tayleur gave a presentation on stakeholder participation and consultation methods. It was highlighted that the core values of relevance, credibility and legitimacy in the assessment process are best achieved through strategic and effective participation. Thus, stakeholder participation is required throughout the assessment process, and key stakeholders should be part of the governance structure. Furthermore, stakeholder input should be recorded and acknowledged in the relevant outputs to ensure transparency.

### 6.3 Exercise 1.2: Consulting with stakeholders

Then, John led an exercise that focused on the intended audiences and users of an ecosystem assessment. Participants were asked to consider what methods could be best used to consult with different stakeholders, and which methods might be more effective with which stakeholders and why. Examples suggested by participants included: face-to-face interviews with indigenous groups; workshops with farmers; interviews or surveys with conservation NGOs; and written based methods with government officials, policy-makers and extractive companies. Face-to-face methods were preferred to consult with local communities as they allow people to express their views and feelings more freely. Interviews or surveys with conservation NGOs would enable quick identification of available information or documents relevant to the ecosystem assessment. Lastly, written based methods with government officials, policy-makers and extractive companies were preferred in the early stages of an assessment to take into account their time constraints.

### 6.4 Defining key questions for the assessment to address

Next, John introduced the need to identify clear, policy-relevant questions that the assessment expects to address in order to guide the assessment process. It was emphasised that policy questions or ‘key questions’ should describe what the user or audience of the assessment wants to know, and these should be agreed upon in close consultation with stakeholders. The answers to key questions can be used to justify or support a decision or action that directly or indirectly affects allocation of public or private resources. Examples of policy-relevant questions from the UK National Ecosystem Assessment (UK NEA) were provided.

Participants expressed much interest in the questions defined in the UK NEA and were keen to learn more about stakeholder engagement in this process.

### 6.5 Exercise 1.3: Developing policy-relevant questions

Participants were tasked with drafting two policy-relevant questions for an ecosystem assessment in their fictional country. Participants had to consider the stakeholders’ concerns, user needs and national priorities from the previous exercises. An example answer is given in **Table 4** below.

**Table 4. Swalayo's key questions for Exercise 1.3.**

Key question	Reason/justification	Key users concerned
What are the current land-use practices that lead to endemic species decline?	There are competing land-uses, property rights, and many stakeholders involved	<ul style="list-style-type: none"> <li>• Indigenous and local communities</li> <li>• Farmers</li> </ul>
How do the current land-use practices affect the delivery of ecosystem services?	To identify land-use practices, priority ecosystems, ecosystem services, and trade-offs	<ul style="list-style-type: none"> <li>• Private companies (mining, timber)</li> <li>• Tourism sector</li> </ul>

### 6.6 Key design considerations

Matthew Ling highlighted the need to carefully plan the design of an ecosystem assessment as this is a complex process. The following five key considerations that can help to guide the assessment process were suggested:

1. Important ecosystems and services;
2. Data requirements and possible sources;
3. Key capacities and resources required;
4. Temporal scales; and
5. Spatial scales of interest and boundaries.

There were questions in regards to the design of an assessment from participants. One participant asked if an ecosystem assessment should be ecosystem-specific. Facilitators explained that an ecosystem assessment need not be ecosystem-specific because ecosystems are interconnected. The speaker then highlighted the need to define clear key questions and the scope of the assessment. Another participant queried the possibility of carrying out an assessment when there was no data available. It was explained that it is possible as data sources can be identified or primary research carried out. Furthermore, one of the findings of an assessment could be the identification of key data gaps.

### 6.7 Exercise 1.4: Key design considerations

Lastly, to conclude the Scoping Stage, participants were asked to start thinking about the key considerations to feed into a draft assessment plan. Participants were specifically asked to:

- Choose a key question from Exercise 1.3 to focus on for the rest of the workshop;
- Identify the most important ecosystems and services that would need to be assessed to address their key question; and
- Discuss what kind of data requirements might be needed to assess these ecosystems and services.

In plenary, participants also identified the key capacities/skills and resources that would be required to carry out the assessment. Facilitators provided further examples based on the UK NEA process. **Table 5** below shows an example response from one of the fictional countries.

**Table 5. Key design considerations identified by participants from Swalayo for Exercise 1.4.**

<b>Key question: How do the current land-use practices affect the delivery of ecosystem services?</b>	
<b>Design considerations</b>	<b>Key things to include</b>
Important ecosystems & services	<ul style="list-style-type: none"> <li>• Grassland savannah</li> <li>• Protected areas</li> <li>• Forests                             <ul style="list-style-type: none"> <li>○ Provisioning services (food, timber/fuel-wood, water, medicine)</li> <li>○ Regulating services (climate amelioration, carbon sequestration, water purification)</li> <li>○ Supporting services (soil formation, habitat, pollination)</li> <li>○ Cultural services (sacred sites, ecotourism, education)</li> </ul> </li> </ul>
Data requirements	<ul style="list-style-type: none"> <li>• Forest area/type</li> <li>• Land-use plans</li> <li>• Animal and tree species (status, diversity, composition)</li> <li>• Forest management system</li> <li>• Hydrological data (water volume, water quality)</li> <li>• Meteorological data</li> <li>• Soil type and nutrients</li> <li>• Habitat type</li> <li>• Number of pollinators</li> <li>• Sacred sites</li> <li>• Tourist site attractions</li> <li>• Profit from tourism</li> </ul>
Key capacities/resources required	<p>Key capacities required</p> <ul style="list-style-type: none"> <li>• Technical team (GIS specialist, economist, ecologist)</li> <li>• Natural resources manager</li> <li>• Policy analyst</li> <li>• Facilitators and communicators</li> </ul> <p>Resource required</p> <ul style="list-style-type: none"> <li>• Office space, equipment, software and stationery</li> <li>• Consultancy fees</li> <li>• Transport costs, accommodation costs and DSA</li> <li>• Communication and dissemination costs</li> </ul>



**Swalayo presents their assessment's key design considerations.**

## 7. The Design Stage

John introduced the Design Stage of the Ecosystem Assessment Framework, and highlighted that a thorough design phase is fundamental for the eventual success of an assessment. The key elements to consider within this stage include:

- The governance structure;
- The process for implementing the assessment;
- The conceptual framework and assessment aims; and
- Funding and on-going engagement of users.

### 7.1 *Key considerations: governance structure, work plan, funding*

Then, John provided further detail on establishing a governance structure, preparing work plans, and funding considerations.

Establishing a governance structure is critical for ensuring user engagement, raising funds, and overseeing progress. Effective governance provides leadership, relevance, legitimacy, and credibility of the assessment process, and its findings. The governance structure is dependent upon size and scope of the assessment, and may include community leaders, scientists, scientific institutions, technical experts, and political leaders/representatives. The different governance structure groups in an ecosystem assessment, roles, responsibilities and desirable skills were outlined; as well as the governance structure of an IPBES assessment.

Work plans, accompanied by detailed supporting documents and terms of reference for the different governance groups, are important for effective management and communication. Work plans should outline milestones, deadlines and deliverables to ensure objectives are met on time and within budget.

Funding considerations depend on the spatial scale, size and nature of the technical effort, the size and nature of the participatory communication and outreach process, the availability of information, and local capacity.

### 7.2 *Exercise: Budgeting for an assessment*

Participants were asked to write down two key potential costs when undertaking an ecosystem assessment and to discuss these with their neighbour. Participants then shared their answers in plenary, which included salaries (including authors, and a secretariat), fees (consultants), data costs (licences), stakeholder workshop costs (transport, DSA, venue), and communication costs. It was emphasised that estimating the budget for an assessment depends on a number of elements, such as the scope and spatial scale of the assessment.

### 7.3 *Exercise 2.3: Selling the assessment concept*

Participants were reminded to design assessments that are policy-relevant in order to secure core funding. They were also encouraged to consider approaching local donors for extra funding as this can generate interest and buy-in from relevant stakeholders. In this exercise, participants had to use their key questions to identify a private company (e.g. mining, forestry, fisheries, tourism), and to prepare a 90-second pitch that would take place in an elevator to persuade the CEO of their chosen private company to co-fund their ecosystem assessment. Representatives from each group delivered their pitches and some of their arguments emphasised the importance of valuing ecosystem services, corporate social responsibility, and sustainable supply chains.

This exercise served to illustrate the need to target communication messages to relevant stakeholders, in this case private companies that benefit from ecosystem services. There was a lively

discussion after the exercise as a participant asked for suggestions on arguments to approach a CEO from a tourism company to help co-fund an ecosystem assessment.



**Participants deliver their pitches in Exercise 2.3.**

## Day 3

### 7.4 Introduction to conceptual frameworks

Following a recap of Day 2, Nadine gave an introduction to conceptual frameworks and indicated their usefulness for framing an ecosystem assessment.

Conceptual frameworks provide a logical structure for evaluating a system, and addressing essential components of the system (e.g. human well-being, ecosystem services), the relationships among those components, and how they may be changing. Conceptual frameworks need to be developed through engagement with a diverse group of users and experts to ensure that the framework is accepted, 'owned' and used. Conceptual frameworks are adapted to the needs of a specific assessment, and draw on a variety of knowledge (e.g. scientific, traditional, and political). Examples of different conceptual frameworks from previous assessments such as the MA and the UK NEA were provided.

Then, Prof. Sebsebe Demissew gave an introduction to the IPBES conceptual framework (**Figure 2**), which was the outcome of an extensive consultative process and approved by Plenary in 2013. The framework is the conceptual, and methodological scaffolding for all activities and products of IPBES. It guides all IPBES assessments in their scoping, analytical and synthesis work, and policy options. The IPBES conceptual framework is a simplified model that reflects the complex interactions between nature and people. It embraces all disciplines in science (natural and social) and different knowledge systems (western and Indigenous local knowledge). More information about the IPBES conceptual framework can be found in IPBES/2/17.

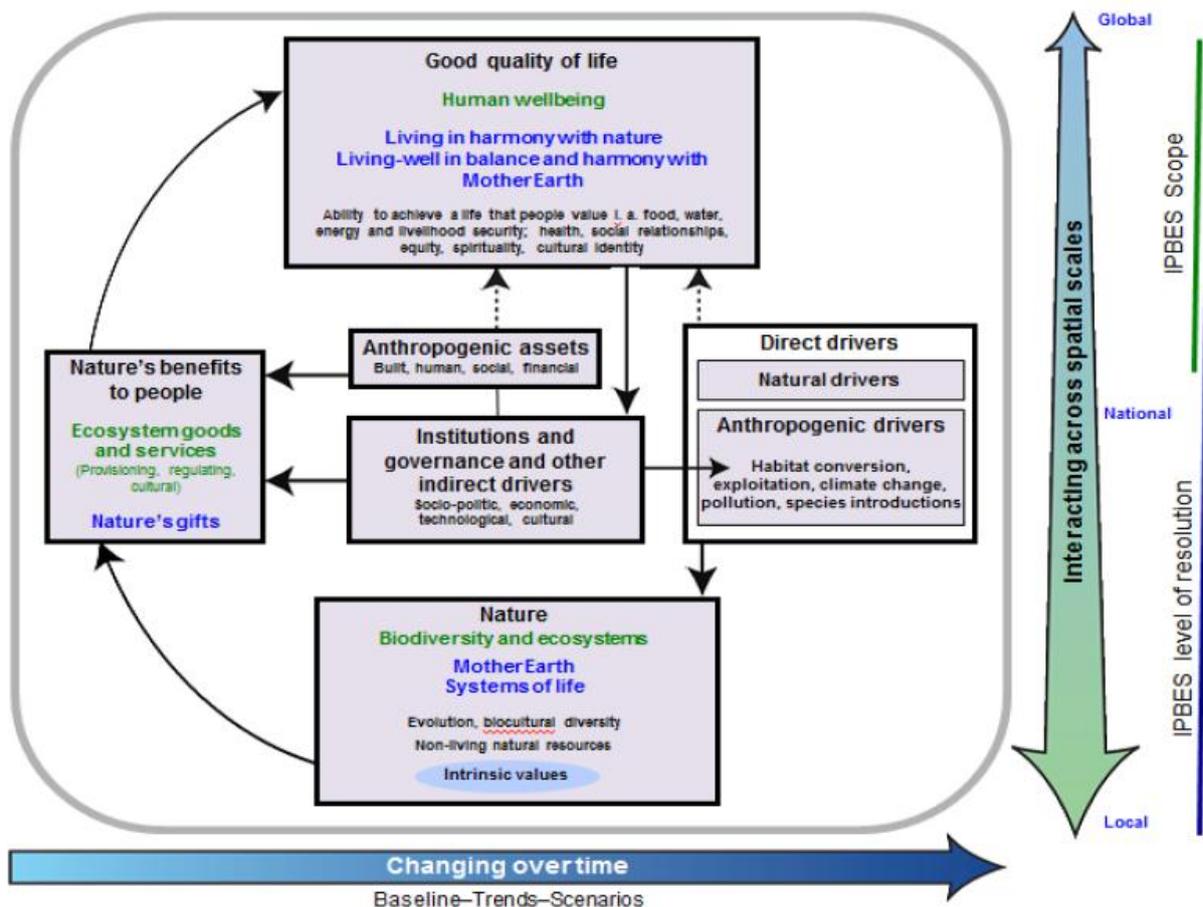


Figure 2. The IPBES Conceptual Framework (IPBES/2/17).

### 7.5 IPBES assessments across scales

Matthew provided further information on the inclusion of different spatial and temporal scales in ecosystem assessments. The example of the Southern African Sub Global Assessment (SAfMA), which was conducted at three spatial scales, was provided to: illustrate that conducting assessments at different spatial scales provides the opportunity to investigate processes at the scales at which they take place; identify links between scales; and ensure that the perspectives of stakeholders at different scales are reflected.

IPBES acknowledges the importance of scale in assessments and helps to catalyse support for sub-regional and national assessments. Guidance proposed in the 'IPBES Guide for Assessments' on how to identify the appropriate spatial, temporal and social/institutional scales for an assessment was also outlined.

### 7.6 Exercise 2.3: Applying the IPBES conceptual framework to a national assessment

Participants were then tasked with applying the IPBES conceptual framework to their fictional countries' assessment. They were asked to use the key question and stakeholder priorities identified in the Scoping Stage, and arrange the key elements into a blank conceptual framework. They were also encouraged to think about the scale of the assessment. Their conceptual frameworks were then shared with other groups through a market place report back. Participants found this exercise challenging as their key questions didn't seem to fit this framework; facilitators explained that the key question could be tweaked at this stage. An example conceptual framework from Kibokia is shown in **Figure 3**.

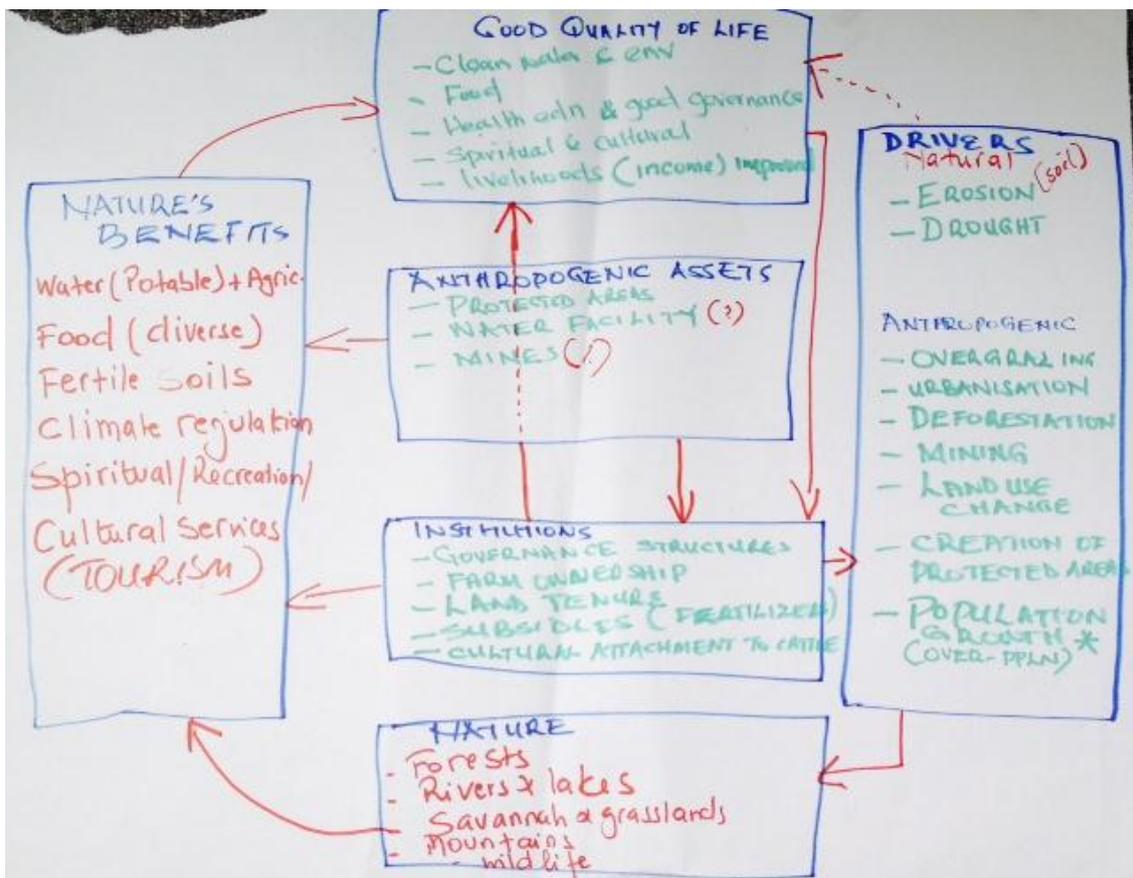


Figure 3. Kibokia's application of the IPBES Conceptual Framework.



Participants share their IPBES Conceptual Frameworks.

## 8. The Implementation Stage

Following a summary discussion and key learning points regarding conceptual frameworks, Nadine introduced the Implementation Stage, which is the technical (doing) stage of the assessment, some of the elements undertaken at this stage include:

- Assessing status and trends of priority ecosystems and services, and the associated drivers of change
- Scenarios – development of descriptive storylines to illustrate the consequences of different plausible kinds of change in drivers, ecosystems, ecosystem services and human well-being
- Valuation of services – present and future; monetary and non-monetary
- Analysing response options – examining past and current actions that have been taken to enhance the contribution of ecosystem services to human well-being
- Peer review – essential part of the implementation stage to ensure validation of findings and to provide credibility

### 8.1 Data, information and knowledge

Nadine explained the differences between data, information and knowledge; then outlined the role of the IPBES Task Force on Data and Knowledge and highlighted the importance of identifying gaps and uncertainties during an assessment to inform future research agendas.

### 8.2 Biodiversity and ecosystem service indicators

Then, Nadine provided a definition of indicators and outlined their key functions (i.e. tracking performance, monitoring the consequences of alternative policies, and scientific exploration), examples that could be used to assess the status and trends of ecosystems and services were provided. Participants were pointed towards two relevant publications for further guidance: *Guidance on National Biodiversity Indicator Development and Use* (BIP, 2010), and *Measuring Ecosystem Services: Guidance on Developing Ecosystem Service Indicators* (UNEP-WCMC & CSIR, 2014).

### 8.3 Assessing status & trends of ecosystems & their services

Next, definitions and an outline of status and trends of ecosystems and ecosystem services was provided. The status and trends analysis component of an ecosystem assessment focuses on different elements of the conceptual framework (i.e. priority ecosystem services, associated drivers of change, and the impacts on human well-being). Some key questions that status and trends analysis looks to answer are the following:

- What is/are the current condition and historical trends of ecosystems and their services?
- What have been the consequences of changes in ecosystems for human well-being (or good quality of life)?

### 8.4 Exercise 3.1: Identifying trade-offs between ecosystem services and potential indicators

Participants were then asked to use the priority ecosystem services and drivers of change identified in their conceptual frameworks (Exercise 2.3) to identify:

- 1) Trade-offs between the supply of ecosystem services and human well-being; and
- 2) Potential ecosystem service indicators that could be used to assess components of Nature or Nature's benefits to people as described in the IPBES conceptual framework. An example of the answers given can be seen in **Table 6**.

**Table 6. The priority ecosystem services, their drivers of change, trade-offs and potential indicators to assess Nature or Nature's benefits to people identified by Kibokia in Exercise 3.1.**

<b>Priority ecosystem service</b>	Climate Regulation	Driver of Change: Deforestation <ul style="list-style-type: none"> <li>• Increase in CO<sub>2</sub> emissions</li> <li>• Hydrological fluctuation</li> <li>• Energy balance (atmospheric)</li> <li>• Decreased carbon sinks (sequestration)</li> </ul>	Trade-offs: (+) Income from timber (+) More land for food production (+) Settlements (-) Reduced CO <sub>2</sub> sequestration (-) Increase in flooding and droughts (-) Biodiversity loss
<b>Indicator</b>	Potential Climate Regulation Indicators	<ul style="list-style-type: none"> <li>• Temperature change</li> <li>• Frequency of droughts</li> <li>• Rainfall change</li> <li>• River flow change</li> <li>• Hectares of forest lost</li> </ul>	



**Kibokia reports back on Exercise 3.1.**

## 8.5 Using scenarios

Matthew introduced another component of the Implementation Stage to participants – the use of scenarios to develop an understanding of plausible changes in primary drivers; and the potential consequences for ecosystems, their services and human well-being. Forward-looking assessments need to explore the prospects of future developments, and scenario exercises provide a structured approach to addressing related uncertainties. It was highlighted that scenarios can't predict the future but they can stimulate social awareness, encourage the challenging of current strategies and assumptions, and help embed ecosystem services concepts and values in current practices. The different types and various uses of scenarios were also outlined.

## 8.6 Exercise 3.2: Identifying the role of scenarios

Then, participants were asked to consider how scenarios could fit into their fictional national assessments. Groups had to write down three possible questions that their stakeholders may have about the future that scenario analyses could answer. Groups also had to consider relevant direct drivers and indirect drivers of change related to their questions. To focus their thoughts, participants were asked to consider these impacts under three headings: desire, fear and fate. **Table 7** below provides an example answer from one of the groups.

**Table 7. Example answer on the role that scenarios could play in an ecosystem assessment from Simbala for Exercise 3.2.**

<b>Assumption:</b> No actions/interventions are taken for the management of Simbala's forest.	
<b>Focal question:</b> What would happen to the food security situation of the local community?	
<b>Relevant direct drivers of change</b>	<ul style="list-style-type: none"> <li>• Land-use change</li> <li>• Logging</li> <li>• Forest fires</li> <li>• Mining</li> </ul>
<b>Relevant indirect drivers of change</b>	<ul style="list-style-type: none"> <li>• Population growth</li> <li>• Trade (forest resources)</li> <li>• Policies (e.g. mining policies)</li> </ul>
<b>Possibilities</b>	<p><b>Desire:</b> Free access to forest resources</p> <p><b>Fear:</b> Continued degradation of forest ecosystems</p> <p><b>Fate:</b> Loss of forest ecosystem services</p>

## 8.7 Exercise 3.3: Using scenarios

Matthew emphasised that scenarios are stories about the future, told as a set of “plausible alternative futures” about what might happen under particular assumptions. Storylines from different scenarios used by the UK NEA were provided. Then, each fictional country was assigned one of three scenarios: *Rapid Economic Development*, *Environmentally Aware* and *Business as Usual*. Participants were asked to outline their storylines in relation to their assigned scenario, and to describe (with words or a graph) how the provision of the key ecosystem services previously identified might change over the next 50 years under their given scenario. An example of Simbala's *Environmentally Aware* scenario is provided in **Figure 4** below. There was extensive discussion in plenary after this exercise, various participants seemed interested in applying the different scenarios to their own actual countries.

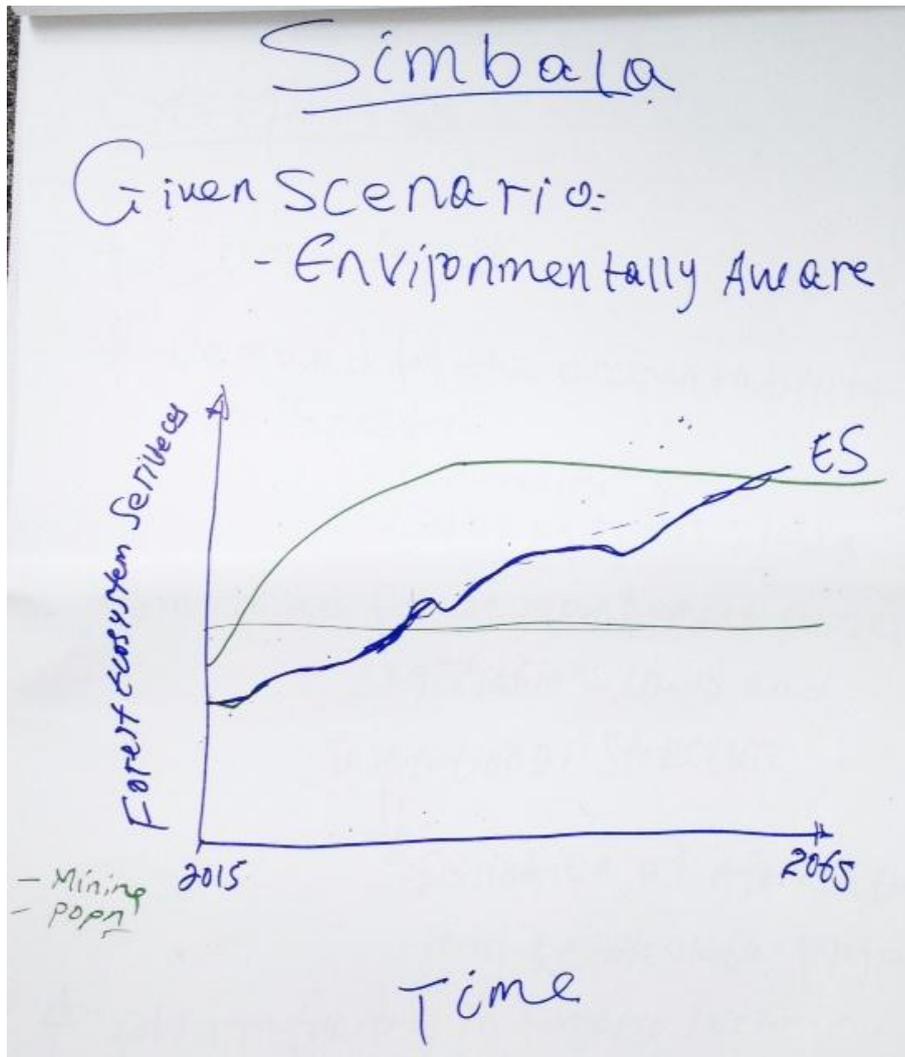


Figure 4. Simbala's graph illustrates the increase of forest ecosystem services over time under the *Environmentally Aware* scenario.



Simbala presents a graph for their *Environmentally Aware* scenario.

## Day 4

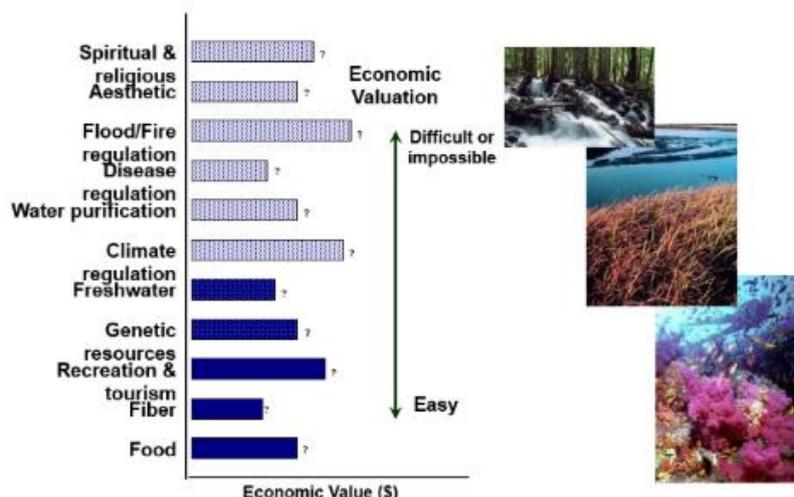
### 8.8 Conceptualising multiple values and valuation methods

After a recap of day 3, Matthew provided an introduction to conceptualising multiple values (e.g. direct use, indirect use, non-use and option values). The term 'value' establishes human preferences and judgment for ecosystem functions/services. Understanding values can inform decision-making by:

- Identifying trade-offs in different values within/among stakeholders;
- Identifying policies and management strategies that respect local values, improve equality in access to and control over resources;
- Avoiding strategies that exacerbate conflicts, inequalities and distrust; and
- Improving buy-in to policies and improving democratic processes.

There is a need to use a range of methodological approaches to valuation (quantitative and qualitative) to fully describe ecosystem service values. The method chosen will depend on the type of ecosystem service to be valued, as well as the quantity and quality of data available. Thus, an IPBES Expert Group has been tasked with developing a valuation protocol to guide valuation in IPBES assessments (linked to deliverable 3d).

Economic benefits valued in monetary terms can be useful for raising the attention of policy-makers. However, some ecosystem services are harder to economically value than others as illustrated in **Figure 5** below.



Source: Jeffrey A. McNeely, Chief Scientist, IUCN-The World Conservation Union from presentation: *FUNDING MECHANISMS FOR BIODIVERSITY*, 27 July 2006 Inter-American Development Bank Workshop on Biodiversity Loss

**Figure 5. Monetary valuation approaches.**

An introduction to the different monetary and non-monetary valuation methods that could be used to value ecosystem services was outlined:

#### Monetary valuation methods:

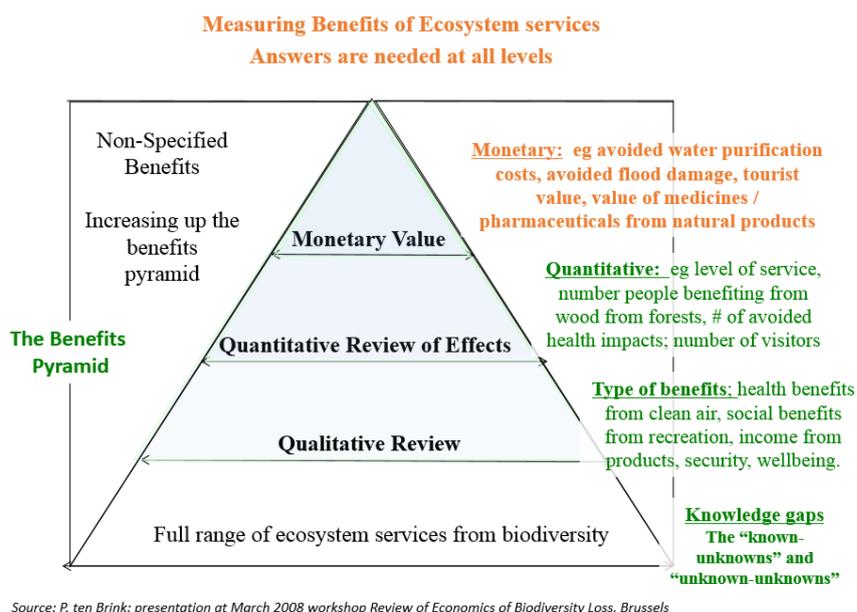
- **Direct market values**
  - Cost-based methods (estimate direct and indirect use values)
  - Production-based methods (estimate the value of ecosystem services that serve as an input in the production of a marketed good)
- **Revealed preference methods** (methods that seek to reveal a person's willingness to pay for ecosystem services)

- Travel costs method (estimates a value based on the time and travel costs people incur to visit an area that provides unique ecosystem services)
- Hedonic pricing method (estimates a value for ecosystem services based on the observed prices in a market)
- **Stated preference methods** (value derived from people preferences in hypothetical market contexts)
  - Contingent valuation (based on surveys asking individuals if they are willing to pay a certain hypothetical price for a change in an ecosystem)
  - Choice experiments (modelling preferences of individuals ranking or choosing from a limited number of hypothetical options)
  - Group valuation (a deliberative and participatory method whereby a wider group of people discusses how their well-being would be affected by a change in an ecosystem)
- **Benefit-transfer methods** (transferring values from existing studies from similar contexts)
  - Unit benefit transfer (average value from another site and adapted to the study site)
  - Adjusted unit transfer (makes adjustments for differences in the study site population)
  - Value/demand function transfer methods (application of the value function estimated in an existing study at another site)
  - Meta-analytic function transfer methods (use information from a number of valuation studies from other sites)

Non-monetary valuation methods:

- **Qualitative assessment** (in-depth interviews or focus group discussions with key experts or key stakeholders to qualitatively value ecosystem services)
- **Quantitative assessment** (value ecosystem changes in terms of bio-physical units and do not attempt to explicitly value their importance for people)

The importance of using multiple valuation methods to measure the benefits of ecosystem services was emphasised (**Figure 6**). Then, the aims and the work undertaken by The Economics of Ecosystems & Biodiversity (TEEB) initiative was outlined and a case study provided.



**Figure 6. Using multiple valuation methods to measure the benefits of ecosystem services.**

### 8.9 Exercise 3.4: Using valuation to answer policy-relevant questions

Following the presentation, participants were asked to identify how valuation could help make better decisions in relation to their key questions, then to discuss what valuation techniques could be used to answer their key questions. Participants were also asked to identify the valuation dimensions and worldviews included in their approach, as well as the gaps that may exist. An example response is given in **Table 8** below.

**Table 8. An overview of Kifarique’s discussion on using ecosystem service valuation in their assessment for Exercise 3.4.**

Ecosystem service	Valuation technique	Advantages/disadvantages
Direct use: <ul style="list-style-type: none"> <li>• Food</li> <li>• Timber</li> <li>• Non-timber forest products</li> <li>• Water</li> </ul>	Market based <ul style="list-style-type: none"> <li>• Direct market value (timber, food, NTFPs)</li> <li>• Cost based approach (water, restoration costs)</li> </ul>	(+) A market value exists for timber, food, and NTFPs (-) The costs of water and restoration costs might be hard to calculate
Indirect use: <ul style="list-style-type: none"> <li>• Cultural services</li> </ul>	<ul style="list-style-type: none"> <li>• Qualitative assessments (cultural services)</li> </ul>	(+) Cultural services don’t have a market value (-) This method might be time consuming

### 8.10 Policy and response options

Then, Nadine introduced the response options component of the assessment process, which aims to identify and assess the different ‘possible responses’ to the deterioration of ecosystem services and to restore services that have been lost. Effective response options take into account the complex socio-ecological processes in which ecosystems and human interactions take place, and include a broad-range of stakeholders. The following key questions should be considered when developing response options:

- What is the ecosystem change/loss, affecting human well-being that needs to be addressed, and why?
- Who will respond?
- Which strategies will they choose?
- How will these strategies be structured?
- What will their effects be on both ecosystems and human well-being?

### 8.11 Exercise 3.5: Identifying policy and response options

Participants were asked to discuss the most important changes that need to be addressed to prevent the deterioration of a priority ecosystem service and the negative effects on human well-being. They were also asked to develop response options to address individual changes, and outline which actors would be best placed to implement them. **Table 9** below summarises the response options from one group.

**Table 9. Response options identified by Simbala in Exercise 3.5.**

Priority ecosystem service: biodiversity			
Change to address	Reason	Response options	Actors
Biodiversity loss	<ul style="list-style-type: none"> <li>• Loss of indigenous knowledge</li> <li>• Limited functioning of ecosystems</li> <li>• Declining income from tourism</li> </ul>	<ul style="list-style-type: none"> <li>• Payment for ecosystem services (PES)</li> <li>• Budgetary allocation</li> <li>• Creation of Protected Areas</li> <li>• Raising awareness</li> <li>• Restoration strategies</li> </ul>	<ul style="list-style-type: none"> <li>• Local communities (including land owners)</li> <li>• Government/legislatures</li> <li>• Civil society/pressure groups</li> <li>• Research institutions/academia</li> <li>• NGOs</li> </ul>



**Simbala reports back in Exercise 3.5.**

### 8.12 Peer review

Katherine Despot Belmonte from the SGA Network Secretariat provided a brief presentation on the peer review process and its importance to ensure legitimacy and robustness in the assessment process as well as to help secure greater buy-in to the findings. An overview of the IPBES peer review process, its core principles and outputs was also provided.

## 9. Ecosystem Assessment Tools

This session was composed of an introduction to IPBES’s work on policy support tools and methodologies, followed by a presentation on ecosystem assessments and mainstreaming, and concluded with a presentation from Mr Leykun Abunie from the Ethiopian Wildlife and Natural Society on community-based biodiversity conservation.

### 9.1 Introduction to policy support tools and methodologies

John highlighted the role of IPBES in helping decision-makers to identify relevant tools and methodologies. IPBES aims to support policy formation and implementation through the identification of policy-relevant tools and methodologies (including those arising from assessments) to facilitate access to relevant tools and methodologies by decision-makers. IPBES plans to develop a ‘Catalogue of Policy Support Tools and Methodologies’ (deliverable 4c). An overview on the links between assessments and policy support tools was also provided.

### 9.2 Ecosystem assessments and mainstreaming

Then, John gave a presentation on tips and tactics to use an ecosystem assessment as a mainstreaming tool. Ecosystem assessments are powerful mainstreaming tools as their outputs can be used for ‘upstream’ (e.g. policy, legislation, institutional development, planning) or ‘downstream’

(e.g. locally based stewardship programmes, changes in production practices) interventions. An outline of relevant entry points for mainstreaming ecosystem findings, and essential activities throughout the mainstreaming processes were provided. The importance of developing a business case for ecosystem services in a specific decision-making process was also highlighted. To conclude, examples of mainstreaming ecosystem findings in the UK, Mali and Guatemala were provided.

## 10. Beginning the Assessment Process

### 10.1 *Exercise: what do you need in order to proceed with planning an assessment in your country?*

Participants left their fictional countries for this exercise and moved into their actual country groups (Ethiopia, Kenya, Rwanda, Tanzania and Uganda). Groups were asked to re-work the Scoping Stage of the Assessment Framework to begin planning for an ecosystem assessment. The following questions were presented in order to help guide the planning process:

- What would you need to do, and who would you need to involve/talk to in order to establish the need for an assessment in your country?
- What would the scope of the assessment be?
- Who would be the key users of the assessment?
- What is the main focus or need for the assessment?
- What key design considerations should you take into account in scoping out the assessment in your country?
- What funding opportunities might be available in your country to support your assessment or the scoping stage?



Country groups begin planning for an ecosystem assessment.

## Day 5

### 11. Communication and Outreach

After a recap of day 4, Nadine introduced the last stage of the Ecosystem Assessment Framework, the Communication and Outreach stage. This session included presentations and exercises on designing a communication strategy, distilling key messages and findings, communicating uncertainty, and designing targeted communication products.

#### 11.1 Exercise 4.1: Designing a communication strategy

Participants were tasked with identifying two target audiences that are relevant to their key question (e.g. Government, land owners, media, planners, etc.) and to discuss:

- **Why** you want to communicate with them;
- **What** you want to communicate to them;
- **How** you will present your information (e.g. in what medium);
- **Which stage(s)** in the assessment process you will communicate with them;
- **Where** you could communicate with them (e.g. specific events); and
- Suggest a possible **success criteria**.

Groups illustrated their discussions through spider diagrams. An example of a target audience from Sengoto can be seen in **Figure 7** below.

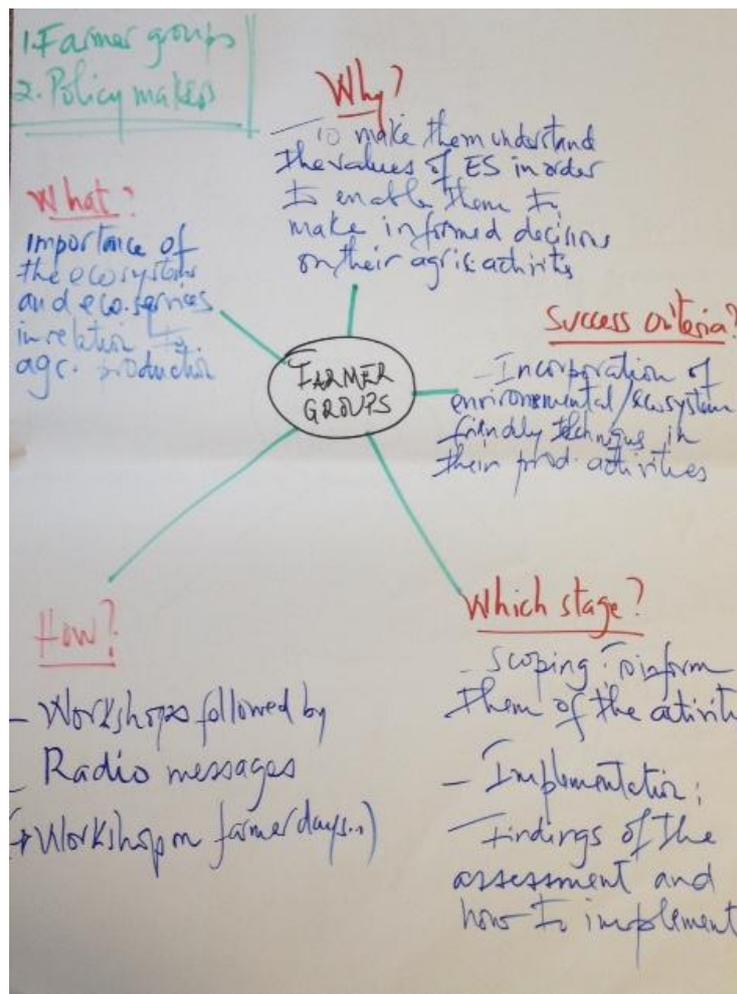


Figure 7. Sengoto's target audience 1 for Exercise 4.1.

### 11.2 Identifying key messages and findings, and communicating uncertainty

Then, Nadine explained the difference between writing key messages and key findings. Key messages are concise, sharp sentences that can be quite general and high-level. On the other hand, key findings are often more technical, containing a fact or figure. Examples from the UK NEA were provided to illustrate this point. The importance of the use of confidence and uncertainty terms related to an assessment's findings was highlighted. An overview of confidence terms within an IPBES assessment was provided, as well as examples of when and how uncertainty terms should be used.

### 11.3 Exercise 4.2: Communicating to target audiences

Following an introduction to designing tailored communication outputs, participants were asked to design a tailored communication product to communicate their fictional country's assessment findings to a target audience.

Most groups preferred workshops to communicate their assessment's findings to their target audiences. Sengoto, for example, developed the agenda, time-line and tasks for a workshop targeted at local farmers, entitled "Increasing agricultural production through forest and wetland ecosystem management." The workshop poster can be seen in **Figure 8**. Kibokia, designed fliers with infographics targeted at mining companies to emphasise the importance of incorporating conservation activities into mining operations (see **Figure 9**).

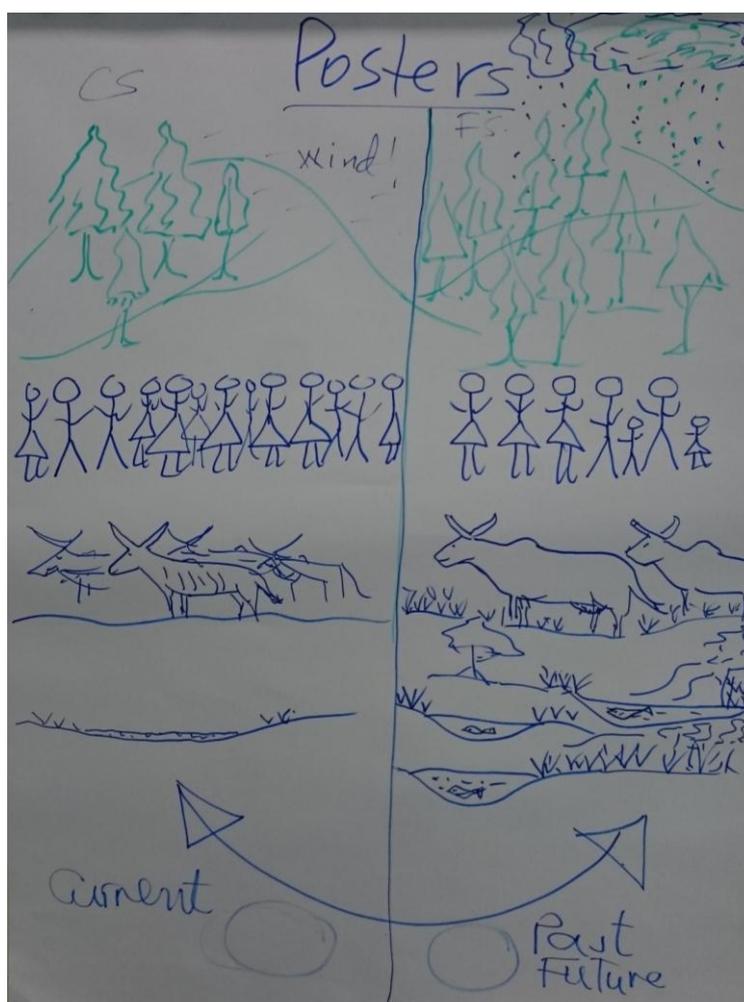


Figure 8. Sengoto's poster targeted at local farmers in Exercise 4.3

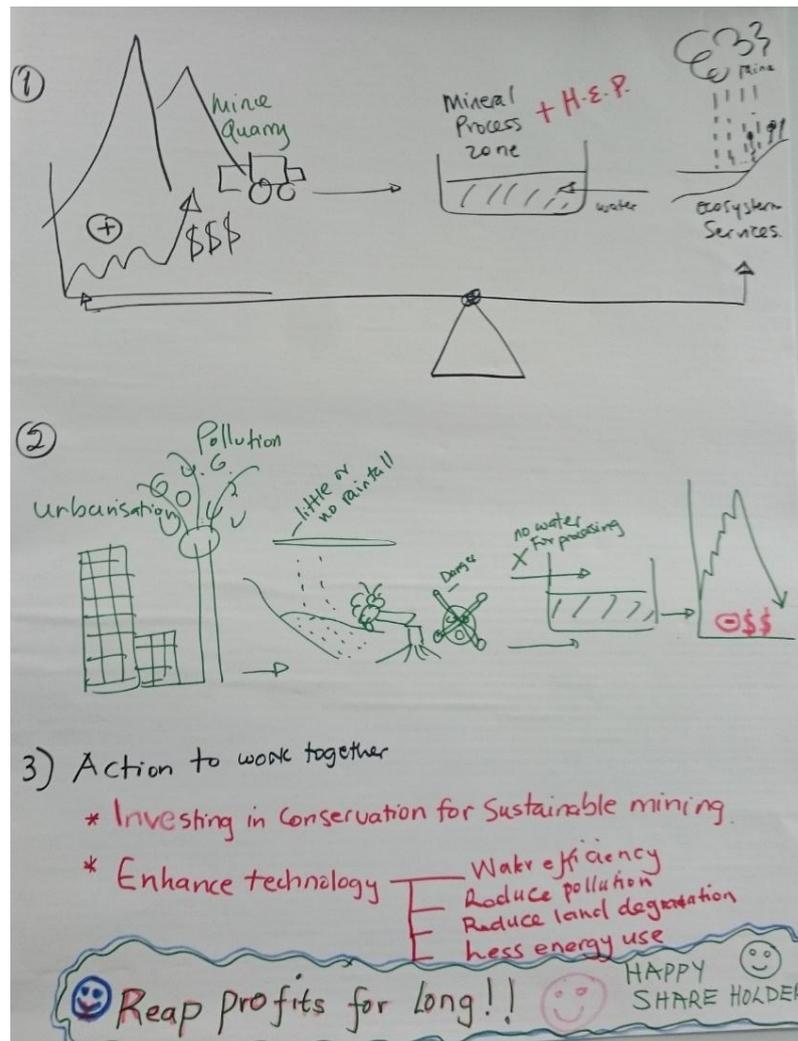


Figure 9. Kibokia's poster targeted at mining companies in Exercise 4.3.

## 12. Capacity Building Needs

This session composed of an introduction by Matthew on capacity building in relation to IPBES's and an exercise in which participants considered their capacity building needs and opportunities (i.e. individual and institutional).

### 12.1 Capacity building in relation to IPBES

An overview of the work to date by the IPBES's Task Force on Capacity Building was provided. It was emphasised that the Task Force is relevant to all IPBES activities and their work is organised in four interrelated tasks:

1. Identifying and prioritising capacity building needs;
2. Partnerships, exchange and training programmes;
3. Increasing access to technical and financial resources; and
4. Building and enabling networks to address capacity building needs.

The main capacity building needs identified by governments/stakeholders and potential sources of support to address these needs was outlined. Lastly, details on the fellowship, exchange and training programme was provided. More information can be found in IPBES/3/3.

## 12.2 Exercise: Exploring capacity building needs and opportunities

Participants discussed their needs and opportunities in regards to capacity building. The exercise was complemented with a discussion in plenary on matching needs with resources. Then, participants were given Capacity Assessment forms in their country groups such that they could evaluate their own country's readiness to undertake an ecosystem assessment.

## 13 Workshop Reflections

To conclude the workshop participants evaluated if their expectations of the workshop had been met. Most expectations were met, as can be seen by the red ticks in **Figure 10**. However, some participants mentioned that they would have liked to have had more time to share challenges and best practices, as well as to work further on financing and budget planning for an assessment. Lastly, participants were given evaluations forms and repeated the self-assessment exercise.

### 13.1 Exercise: Workshop evaluation

Participants completed evaluation forms to identify where the workshop succeeded in meeting expectations and where improvements could be made on the design, content, and structure of the workshop. Participants also rated their level of experience and understanding of ecosystem assessments and IPBES before and after the workshop. Participants' evaluation forms will serve to inform future capacity building workshops regarding ecosystem assessments.

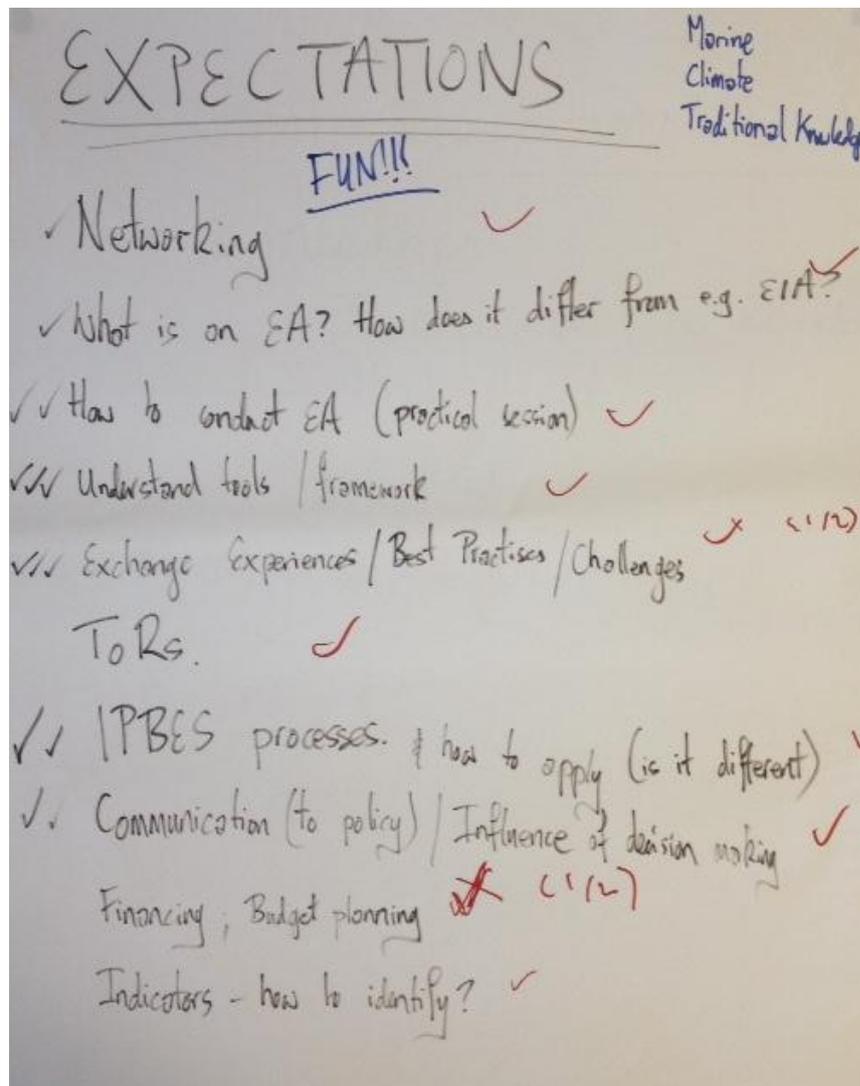


Figure 10. Participants' expectations evaluation summary





Figure 11(c). How participants assessed their understanding of the ecosystem assessment process at the start and end of the workshop.



Figure 11(d). How participants assessed their understanding of the ecosystem assessment process at the start and end of the workshop.

## 14 Closing remarks

To wrap up the workshop John Tayleur and Matthew Ling from the SGA Network Secretariat, and Prof. Sebsebe from the University of Addis Ababa provided concluding remarks. Sebsebe began by thanking participants for their valuable contributions and congratulated the workshop organisers on the delivery of a successful workshop. John followed by thanking UNEP ROA, and EBI in particular, for their excellent support prior to and during the workshop, and to UNDP for providing the space and facilities to hold the workshop. John also thanked participants for attending the workshop and for their high level of enthusiasm, engagement and hard work over the week. Lastly, Matthew encouraged participants to join the SGA Network and kindly requested participants to keep the SGA Network Secretariat informed of future assessment activities in their countries or region. Permission was asked to add participants' contact details to the SGA Network mailing list to inform them of future webinars and network activities.

## Annex 1. Participant List

Name	Institution	Country	e-mail
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## Annex 2: Workshop Agenda

### Day 1 (24<sup>th</sup> August): Introduction to Ecosystem Assessments

Time	Session	Format
12:00	<i>Bus departure from Capital Hotel and Spa (please gather in the foyer of the Capital Hotel and Spa in good time for prompt departure at 12:00pm)</i>	
12:30	<b>Lunch</b> and Registration	
<b>Opening Session</b>		
13:30	1. Opening address	Plenary
13:40	2. Welcome and introductions	Plenary
14:00	3. Self-assessment	-
14:30	4. Workshop objectives and overview	Plenary
15:00	<i>Exercise: Expectations of participants</i>	Break-out
15:30	<b>Tea/Coffee break</b>	
<b>Setting the Scene</b>		
16:00	5. Introduction to the Sub-Global Assessment (SGA) Network	Plenary
<b>IPBES Assessments</b>		
16:15	6. Introduction to IPBES, its functions and work programme <i>Presentation by Sebsebe Demissew (Addis Ababa University)</i>	Plenary
16:35	7. UNDP's role in IPBES (BES-Net) <i>Presentation by Jessie Mee (UNDP)</i>	Plenary
16:45	8. Introduction to the IPBES Assessment Guide <i>Presentation by Sebsebe Demissew (Addis Ababa University)</i>	Plenary
17:00	9. What is an IPBES assessment?	Plenary
17:15	<i>Exercise: What is an ecosystem assessment?</i>	Individual
17:25	<i>Summary</i>	Plenary
17:30	<b>Close</b>	
17:45	<i>Return bus to Capital Hotel and Spa</i>	
19:00	<b>Dinner</b> (Capital Dining - Capital Hotel and Spa)	

## Day 2 (25<sup>th</sup> August): Ecosystem Assessment Framework – Scoping & Design Stages

Time	Session	Format
08:30	<i>Bus departure from Capital Hotel and Spa (please gather in the foyer of the Capital Hotel and Spa in good time for prompt departure at 08:30am)</i>	
09:00	1. <b>Workshop commences:</b> Recap Day 1 and introduce Day 2	Plenary
<b>Introduction to the Ecosystem Assessment Framework</b>		
09:15	2. Introduction to the Ecosystem Assessment Framework	Plenary
<b>The Scoping Stage</b>		
09:30	3. Defining the scope and context of an assessment	Plenary
09:45	<i>Exercise 1.1: Determining the need for an assessment</i>	Break-out
10:30	<i>Exercise 1.2: Consulting with stakeholders</i>	Plenary
11:00	<b>Tea/coffee break</b>	
11:30	4. Biodiversity and Conservation Options in Ethiopia <i>Presentation by Leykun Abunie (Ethiopian Wildlife and Natural Society)</i>	Plenary
11:50	5. Defining key questions for the assessment to address	Plenary
12:05	<i>Exercise 1.3: Developing policy-relevant questions</i>	Break-out
12:50	6. Key design considerations	Plenary
13:00	<b>Lunch</b>	
14:00	<i>Exercise 1.4: Key design considerations</i>	Break-out
14:50	<i>Scoping stage summary discussion – lessons, key learning points, etc.</i>	Plenary
<b>The Design Stage</b>		
15:10	7. Key considerations: governance structure, work plan, funding	Plenary
15:30	<b>Tea/Coffee break</b>	
16:00	<i>Exercise: Budgeting for an assessment</i>	Individual
16:30	<i>Exercise 2.4: Selling the assessment concept</i>	Break-out

Time	Session	Format
17:00	<i>Design stage summary <b>discussion</b> – lessons, key learning points, etc.</i>	Plenary
17:30	<b>Close</b>	
17:45	<i>Return bus to Capital Hotel and Spa</i>	
19:30	<b>Dinner (Yod Abyssinia Cultural Restaurant)</b> <i>*please gather in the foyer of the Capital Hotel and Spa for prompt departure at 19:00</i>	

### Day 3 (26<sup>th</sup> August): Ecosystem Assessment Framework – Implementation Stage

Time	Session	Format
08:30	<b>Bus departure from Capital Hotel and Spa</b> (please gather in the foyer of the Capital Hotel and Spa in good time for prompt departure at 08:30am)	
09:00	1. <b>Workshop commences:</b> Recap of Day 2 and introduce Agenda for Day 3	Plenary
09:15	2. Introduction to conceptual frameworks	Plenary
09:35	3. Introduction to the IPBES conceptual framework <i>Presentation by Sebsebe Demissew (Addis Ababa University)</i>	Plenary
10:05	4. IPBES assessments across scales	Plenary
10:15	<b>Exercise 2.3: Applying the IPBES conceptual framework to a national assessment</b>	Break-out
11:00	<b>Tea/Coffee break</b>	
11:30	<b>Exercise 2.3: Applying the IPBES conceptual framework to a national assessment – report back</b>	Break-out
11:50	<i>Conceptual framework summary <b>discussion</b> – lessons, key learning points, etc.</i>	Plenary
<b>The Implementation Stage</b>		
12:10	5. Assessing status and trends of ecosystems and their services	Plenary
12:25	<b>Exercise 3.1: Identifying trade-offs between ecosystem services and potential indicators</b>	Break-out
13:00	<b>Lunch</b>	
14:00	6. The concept of scenarios and their role in the ecosystem assessment process	Plenary

Time	Session	Format
14:15	<i>Exercise: Identifying the role of scenarios</i>	Break-out
14:50	<i>Exercise: Using scenarios</i>	Break-out
15:30	<b>Tea/Coffee break</b>	
16:00	<i>Exercise: Scenarios continued</i>	Break-out
17:20	<i>Scenarios summary discussion – lessons, key learning points, etc.</i>	Plenary
17:30	<b>Close</b>	
17:45	<i>Return bus to Capital Hotel and Spa</i>	
19:00	<b>Dinner</b> ( <i>Capital Dining - Capital Hotel and Spa</i> )	

### Day 4 (27<sup>th</sup> August): Ecosystem Assessment Framework –Tools & Communication

Time	Session	Format
08:30	<b>Bus departure from Capital Hotel and Spa</b> ( <i>please gather in the foyer of the Capital Hotel and Spa in good time for prompt departure at 08:30am</i> )	
09:00	1. <b>Workshop commences:</b> Recap Day 3 and introduce Agenda for Day 4	Plenary
09:10	2. Conceptualising multiple values and Valuation	Plenary
09:30	<b>Exercise 3.4: Valuation techniques</b>	Break-out
10:00	<i>Valuation summary discussion – lessons, key learning points, etc.</i>	Plenary
10:20	3. Policy and Response Options	Plenary
10:30	<b>Exercise 3.5: Identifying policy and response options</b>	Break-out
11:00	<b>Tea/Coffee break</b>	
11:30	<b>Exercise 3.5: Identifying policy and response options (continued &amp; feedback)</b>	Break-out
11:50	4. Peer review	Plenary
12:00	5. Introduction to policy support tools and methodologies	Plenary
12:15	6. Ecosystem assessments and mainstreaming	Plenary
13:00	<b>Lunch</b>	
<b>Beginning the assessment process in your country</b>		

Time	Session	Format
14:00	<i>Exercise: what do you need in order to proceed with planning an assessment in your country – implementing what you have learnt so far</i>	Plenary
15:00	<b>Tea/Coffee break</b>	
15:30	<i>Exercise: what do you need in order to proceed with planning an assessment in your country – implementing what you have learnt so far – (continued)</i>	Plenary
16:30	<i>Discussion session on beginning the assessment process in your countries</i>	Plenary
<b>Ecosystem Assessment Tools</b>		
17:00	7. A Pilot Project Achievement in Realising the Community-based Biodiversity Conservation in some Selected Areas in Ethiopia  <i>Presentation by Leykun Abunie (Ethiopian Wildlife and Natural Society)</i>	Plenary
17:30	<b>Close</b>	
17:45	<i>Return bus to Capital Hotel and Spa</i>	
19:00	<b>Dinner (Capital Dining - Capital Hotel and Spa)</b>	

### Day 5 (28th August): Ecosystem Assessment Framework –Tools & Communication

Time	Session	Format
08:30	<b>Bus departure from Capital Hotel and Spa (please gather in the foyer of the Capital Hotel and Spa in good time for prompt departure at 08:30am)</b>	
09:00	1. <b>Workshop commences:</b> Recap Day 4 and introduce Agenda for Day 5	Plenary
<b>Communication and Outreach</b>		
09:15	2. The role of communication in an ecosystem assessment and communicating uncertainty	Plenary
09:30	<b>Exercise 4.1:</b> <i>Designing a communication strategy</i>	Break-out
10:00	3. <i>Communicating uncertainty</i>	Plenary
10:30	<b>Exercise 4.2:</b> <i>Communicating to target audiences</i>	Break-out
11:00	<b>Tea/Coffee break</b>	
11:30	<b>Exercise 4.2:</b> <i>Communicating to target audiences (continued)</i>	Break-out
<b>Capacity building needs</b>		

<b>Time</b>	<b>Session</b>	<b>Format</b>
11:45	4. Exploring capacity building needs and opportunities	Plenary
	<i>Exercise: Exploring capacity building needs and opportunities</i>	Break-out
<b>Workshop reflections</b>		
12:30	5. Evaluation	Plenary
13:00	<i>Exercise: Self-assessment – take 2</i>	Individual
13:15	6. Closing remarks	Plenary
13:30	<b>Close</b>	
13:30	<b>Lunch</b>	
14:40	<i>Return bus to Capital Hotel and Spa</i>	