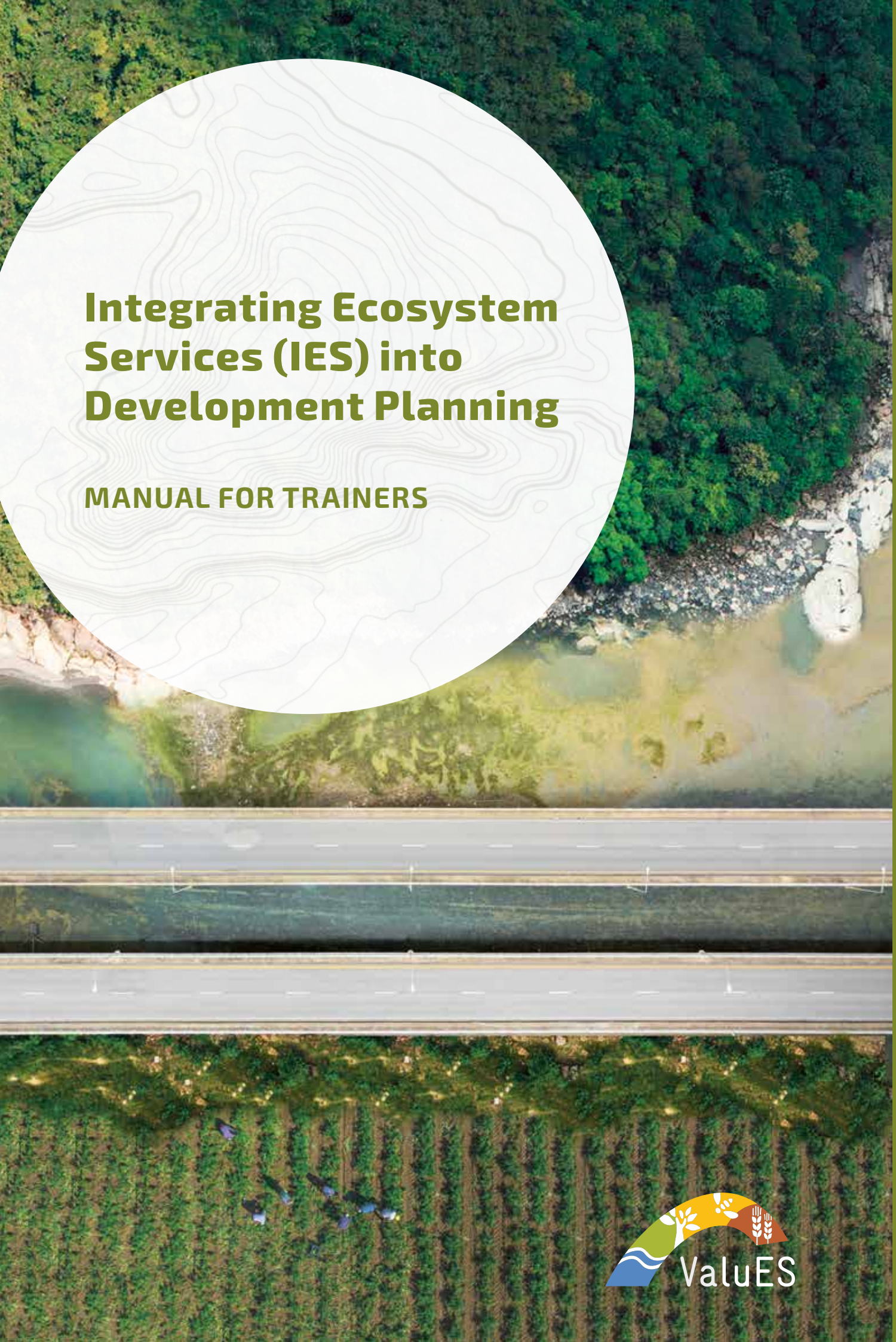

Integrating Ecosystem Services (IES) into Development Planning

MANUAL FOR TRAINERS

ValuES

IES INTEGRATING ECOSYSTEM SERVICES

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Since 2012 the project provides practitioners and decision makers in partner countries with the skills to select and effectively use methods and instruments to identify, prioritize, assess, value and integrate ecosystem services into national and local policies and strategies. Additionally, since 2015 ValuES has been supporting the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) on its concept of multiple values of nature and benefits, on the catalogue of policy support tools and methodologies, and on its capacity building programme.

www.aboutvalues.net

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- Integrating Climate Change Adaptation into Development Cooperation – A Practice. Oriented Training Based on the OECD Policy Guidance. Trainer Handbook. GIZ 2011
- Climate change adaptation in coastal and marine areas (Blue CCA). Manual for Trainers. GIZ 2016.

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ValuES

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CONTENTS

INTRODUCTION

Integrating Ecosystem Services into Development Planning. A practice-oriented training based on the Harvard Case Methodology

Nature is the source of life. Human well-being depends largely on the benefits that ecosystems provide. Services such as water purification, soil fertility, pollination and erosion prevention – to name just a few – are essential for food production, climate change adaptation and the protection of infrastructure and human settlements from extreme weather events. Yet society and policies often fail to recognize the value of nature's services, meaning that they are under-emphasised or even ignored altogether in decision-making. As a result, biodiversity and ecosystems are being degraded worldwide, jeopardizing their capacity to render key services. Restoring ecosystems or substituting their natural services is expensive or, in many cases, impossible.

A better ability to assess and value the benefits of ecosystem services can help development planners understand in which ways human actions depend on and impact ecosystem services, consider the trade-offs among options, and choose policies that are able to sustain such services. An ecosystem services focus promotes the implementation of enviroment-friendly measures and policies, and helps consider the value of ecosystems and biodiversity across different sectors and stakeholder groups. As such, it offers an important tool for mainstreaming biodiversity into decision-making.

Our approach

The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) developed a guide for development planners and policymakers on *Integrating Ecosystem Services* (IES) into Development Planning. It advocates a stepwise approach through which it is possible to recognize, demonstrate and capture the value of biodiversity and ecosystem services for development planning.

This training combines the theoretical and practical elements of the IES stepwise approach and guides through the application of each step:

1. Defining the scope and setting the stage – What are the main development and management issues that the IES process needs to address and for which purpose? Who are the relevant stakeholders and how should they participate in the IES process?

2. Screening and prioritising ecosystem services – How does the development plan (including associated economic activities and livelihoods) depend and impact on ecosystem services?
3. Identifying ecosystem service conditions, trends, and trade-offs – What are the current conditions and likely future trends in ecosystem service demand and supply? What are the main drivers of change and which trade-offs are foreseeable?
4. Appraising the institutional and cultural framework – Which organisations and institutions govern ecosystems and their services? Who participates in decision-making and in what role?
5. Preparing better decision-making – What are ecosystem-related risks and opportunities and how can they be factored into decisions?
6. Implementing change – Are the proposed policy options realistic, feasible, acceptable and consistent with the development plan? Who will be involved in implementing the policy measures and in what role?

Training concept

The training is based on the Harvard Case Methodology, which conveys teaching messages mainly through interactive practical work by participants. The training exercises are based on the fictitious country of Bakul, a case portraying situations closely related with real development challenges.
All modules follow a similar sequence, including the following elements:

- The introduction, given by the trainer(s), provides the necessary theoretical background and introduces participants to the case work and the exercises.
- The case work gives participants the opportunity to work through the different aspects linked to IES in a systematic manner. Participants assume the roles of "case work experts" or involved stakeholders in charge of the specific tasks.
- The groups present their results to the plenary. Trainers ask questions, offer alternatives and corrections when necessary.
- In the reflection phase, participants reassume their own real-life positions. They reflect on the exercises and link them to their own experiences.

Objectives

The training course introduces the theoretical and practical starting points of integrating ecosystem services into development planning. The objective of the training is to recognize the correlation between ecosystem services and development as a crucial factor for development planning. Specific objectives include:

- Provide an overview of the IES approach, its applicability, background and potential outcomes.
- Learn how to recognize the linkages between ecosystem services and development activities and understand related risks and opportunities.
- Become familiar with tools and methods for assessing, valuing and integrating ecosystem services into development planning.
- Reflect on policy options and instruments to promote policies that integrate ecosystem services.
- Ground the approach in the context of partner countries and identify and agree upon steps for implementation.

Training materials

Training materials are available in different languages. A comprehensive training package includes the IES manual, PowerPoint slides, factsheets, literature lists and this trainer manual.

The stepwise IES approach aims to provide practitioners with a practical and policy-relevant framework for integrating ecosystem services into development planning. The table below summarises these steps. They are described in detail in the IES manual.

OVERVIEW OF THE IES APPROACH (THE SIX STEPS)

STEP	SUMMARY	EXPECTED OUTCOME	GUIDING QUESTIONS
STEP 1: Defining the scope and setting the stage 	Step 1 involves undertaking the groundwork that is required to get the IES process started. The main tasks are: defining the objective(s), outlining the scope of work and identifying main stakeholders to be involved. At the end of Step 1, the design and next steps in the IES process should be defined, including the division of tasks and responsibilities. The availability of the necessary human and financial resources and other inputs should also be clarified as far as possible.	• Clear definition of management challenge or issues to be addressed • Documented and agreed. objective, scope and expected outcome of the IES process. • Documented and agreed work plan, including resource requirements. • Stakeholder map and engagement plan. • Communications plan.	• What are the main development and management issues that need to be addressed by the IES process, and for which purpose? • Who are the relevant stakeholders and how should they participate in the IES process? • What are the milestones and expected outcomes of the IES process? • What staff, funds and other inputs are required to carry out the IES exercise? • How will key messages be communicated to target groups?
STEP 2: Screening and prioritizing ecosystem services 	At the end of Step 2, priority ecosystem services will have been identified. The main task is to screen the development plan to identify its ecosystem services risks and opportunities.	• Matrix showing ecosystem service dependencies and impacts in relation to the development plan. • Agreed list of priority ecosystem services. • Summary of potential areas of conflict or competition, which may result in trade-offs.	• How does the development plan (including associated economic activities and livelihoods) depend and impact on ecosystem services? • Which stakeholders stand to be affected by the development plan and by changes in ecosystem services? • What costs and benefits are associated with these changes and how will they be distributed between different groups? • Do potential areas of conflict, competition or synergies emerge? • Which are the most important ecosystem services for the development plan and why?
STEP 3: Identifying conditions, trends and trade-offs 	Step 3 looks at the cause-and-effect relationships that operate between ecosystem services and the development plan. The status and main trends in the supply and demand for ecosystem services are analysed. Drivers of ecosystem change and key stakeholders are also identified. A particular concern is to identify where there may be synergies and trade-offs between the between different groups, goals or services.	• Information on ecosystem services conditions and trends. • Overview of the main drivers of change, related stakeholders. • Analysis of ecosystem services synergies and trade-offs in the context of the development plan. • Key messages for different audiences.	• What information and evidence on ecosystem service conditions and trends exists and what are the main information gaps? • What are the current conditions and likely future trends in ecosystem service demand and supply? • What are the main drivers of change? • What trade-offs might arise between development goals and ecosystem services and how will these affect different stakeholders?

STEP	SUMMARY	EXPECTED OUTCOME	GUIDING QUESTIONS
STEP 4: Appraising the institutional and cultural framework 	Step 4 complements the information that has been gathered in Step 3. It appraises institutional, policy, legal and cultural characteristics, and identifies the resulting incentive structures in relation to ecosystem services and the development plan. These factors mediate and influence how people manage, use and impact on ecosystems and their services, and may act as drivers of either positive or negative ecosystem change.	• List of key institutional, policy, legal and cultural characteristics and the resulting incentive structures (that influence how people manage, use and impact on ecosystems and their services). • Identification of underlying causes and drivers of ecosystem degradation. • Overview of stakeholders' positions, interest, needs, values and rights. • Information on existing and possible areas of conflict or cooperation relating to ecosystem use, management and incentives	• Which organisations and institutions govern ecosystems and their services? • Who participates in decision-making and in what role? • Which policies, regulations and incentives influence ecosystem use and management? Who or what do they target? How are they enforced? • Are there conflicts or inconsistencies between different institutional, policy, legal and cultural frameworks and associated incentive systems? • Which other needs, interests, values and rights drive ecosystem management choices?
STEP 5: Preparing better decision-making 	Step 5 summarises and analyses the information that has been gathered in the previous steps. Based on this information, risks and opportunities for the development plan are investigated. It suggests policy options which can serve to maintain or increase the flow of ecosystem services, and identifies suitable entry-points for guiding or influencing decision-making.	• Analysis of risks and opportunities associated with the development plan. • Shortlist of policy-options and corresponding entry-points into decision-making. • Communications messages on policy options.	• What are the ecosystem service-related risks and opportunities to the development plan? • Could economic valuation be useful? If so, how? • What are the most feasible policy options and entry points for reducing or avoiding risks and capturing ecosystem service opportunities? • How can policy measures, instruments and interventions build on existing experiences?
STEP 6: Implementing change 	Step 6 involves developing a strategy to operationalise the policy recommendations generated in step 5. It involves preparing a work plan, as well as a stakeholder engagement and communication strategy for the implementation of concrete measures to integrate ecosystem services into the development plan.	• Implementation strategy and operational work plan. • Communication strategy specifying target audience, key messages and possible champions and allies to encourage and operationalise the required changes.	• Are the proposed policy options realistic, feasible, acceptable and consistent with the development plan? • Are the necessary financial, technical, human resource and institutional capacities in place to deliver the selected policy options? • Who will be involved in implementing the policy measures and in what role? • How will the impacts of the policy measures be monitored? • How will learning be generated, shared and communicated?

1

INTRODUCTION TO PARTICIPATORY TRAINING METHODS

1.1 KEY COMPETENCIES FOR TRAINERS

IES trainers should have sound knowledge on IES and its different components, but should not see themselves as expert lecturers. They are facilitators and communicators for the training group. Beside the competencies as an "IES expert", they require specific facilitation skills and competences. The success of a training course greatly depends on good facilitation, which is both a skilful and creative craft. Good facilitators bring a group together, develop and balance its potentials in a non-dominating way. They are knowledgeable about the issues at stake without being pretentious about this. Asking and formulating the right questions at the right times and the ability to listen actively and intently are important tasks.

IES trainers master a variety of techniques to enhance group dynamics and organize plenary sessions, as well as group work in a well-planned and scripted setting. Important skills and qualities of IES trainers are summarized below:

- **Interaction competence:** Ensures effective communication and focused work in a relaxed and friendly atmosphere and, in turn, creates effective problem solving. Trainers should turn recipients who passively consume inputs supplied by an expert lecturer into participants who interactively share their ideas and outputs with others. Trainers can be persuasive not by preaching but by supporting participants to apply and to reflect on newly acquired knowledge.

- **Presentation competence:** Supports general understanding and learning of new information. Includes learning-oriented "power point"-skills and general rhetorical skills.

- **Visualisation competence:** Supports general understanding and serves as an external memory of developed topics and results achieved during the different sessions. Trainers should possess drawing and good handwriting skills, and acquire a sense for arranging space, structure, colours and other moderation or presentation elements to create an attractive learning environment.

- **Participation competence:** Brings out the best in a group by means of cumulative learning, which all participants should contribute to. Good trainers make participants feel that "nobody knows everything but everybody knows something". They set the tone of the event, trust in other people's intellectual and creative potentials, avoid giving the impression there are winners and losers in a group, and respect the ideas, opinions and practices of others.

- **Dramaturgic competence:** Arranges an event alternating between suspense and thrill, group and plenary sessions, experience and individual cognition. Trainers need to be able to flexibly adapt and modify moderation and visualization methods and sequences of steps, according the group's dynamics and needs, time, space, and other frameworks conditions that have an influence on the training design.

In a nutshell: We see the trainer less as a teacher or expert and more as a facilitator of a learning process. This fits very well with the trainer sharing his/her knowledge and experiences (e.g. through inputs and presentations), but only as part of an interactive learning design and not in a way that places the trainer's knowledge and experience in the spotlight.

1.2 THE HARVARD CASE METHOD

The GIZ IES training is based on the Harvard Case Method, which conveys teaching messages through interactive practical work by participants. The training deals with the fictitious country of Bakul, a situation closely related with real-life conditions and challenges.

Background
The Harvard Case Method is a tried and tested approach for practice-oriented, interactive learning. It was developed in the context of university teaching, where it is largely based on the intensive exploration and discussion of a particular case relevant to the teaching objectives. The case method stimulates the trainee's active exploration and development of conclusions, rather than providing ready-made teaching messages. With this background, the case method is well suited for the development of practice-oriented knowledge as required by people who are actively involved in development planning work.

The five golden rules for a Harvard Case teacher

- **Rule 1:** Do not 'explain' the message of the case directly. Let the trainees find the conclusions themselves. Guide them through questions.
- **Rule 2:** Provide enough time for the wrap-up phase where participants actively discuss the messages and conclusions.
- **Rule 3:** Be precise with your instructions for the case work. The trainees should start the case work with a clear vision of what they have to do.
- **Rule 4:** Limit presentations. Do not talk for more than 15 minutes (except the introductory lecture). If necessary, split lectures into several shorter inputs.
- **Rule 5:** Always invite the trainees to reflect on how the lessons learnt relate to their day-to-day work or on how far trained approaches should be adjusted to fit real-life circumstances.

The case method has been adapted to the particular requirements of this training programme. This implies that, compared to the university teaching context, trainees play an even more active role, while the role of trainers tend to be less dominant. Trainees will, for instance, explore the case study in a group work format and trainers assist their reflection with guiding questions. In contrast, in a university context, the teacher guides his/her students through the case with the help of questions.

Fictitious or real case?
The particular value of having a fictitious case study is that everybody can relate easily to it and everybody has the same level of knowledge on the case. The fictious case of Bakul has most of the relevant features needed in order to simulate the whole process from recognizing, demonstrating and capturing the value of ecosystem services for development and integrating them into development planning.

One could argue that real-world cases would be better, as they are derived directly from reality. The tricky thing, however, is that there are no 'neutral cases' and participants may be biased or hampered in one way or another by learning in this manner. Real cases may also provoke unproductive discussions about the reliability of the supplied data.

Furthermore, it is important to make clear that even in a real case, we would never have all the information we would like to have, and dealing with logically drawn assumptions and conclusions is part of the learning process.

Agenda of case work
All modules for the IES training follow the same training sequence, including the following crucial elements:

- The **introduction** is given by the trainer. The introduction provides the necessary theoretical background and explains the case work. After the introduction, the case work groups should be able to conduct their work independently. There are module intro slides in the PowerPoint library that align with the training manual and handouts. Their basic message should therefore not be changed, but it can be extended.

- The **case work** is carried out in working groups by the participants themselves. During case work, participants assume the roles of 'case work experts' or stakeholders in charge of the specific exercise's task. They use the matrices to systematically work through the different aspects linked to IES. After the trainer's introduction, supported by the detailed task descriptions in the Training Manual, the expert working groups should be able to organise their work independently. The trainers should remain close by and be prepared to offer support and guidance.

- After the case work, the 'case work experts' **present their results** to the plenary. The presentation should highlight major findings and/or questions from the case work. It is important that this step is introduced as a chance to share experiences and for mutual learning and not as a 'test'. The trainers should be appreciative of the work done and give feedback on the results; they should only offer alternatives and amendments if necessary.

- In the final **reflection**, the participants leave their case work experts' roles and reassume their own real-life position. Back in their own position, they reflect on their case work experiences and on how it could be implemented in their own work. This step is necessary to 'materialise' the experiences gained from the case work, i.e. make them tangible, accessible and, in the end, applicable in a different situation. Trainers facilitate this step through guiding questions.

1.3 PARTICIPATORY TRAINING METHODS

1.3.1 Tips and hints for interactive trainings

Be very well prepared.
A participatory training workshop puts a high demand on the trainer(s), who have to lead the narrative, be adaptive to changes and responsive to trainee's needs and requests. They have to be on top of the training, without showing a 'top-down' attitude. Good preparation of training venue and materials, PowerPoint presentations and flip charts, and a solid understanding of the exercises including the following discussions is essential to providing a training experience rewarding for both trainers and trainees. Make sure you arrive well before the training (ideally one or two days before the start of the training) and have logistical support on the ground in case it happens away from your workstation. Familiarise yourself with all content of the training well before you arrive, and ideally together with your co-trainer.

Create a good workshop flow through proper sequencing.
In order to come up with a good mix of methods, trainers require a dramaturgic feeling in order to find the appropriate combination of methods for a particular group. Putting the different methods in a proper sequence demonstrates the ability of a trainer to create a good flow for the training workshop process. This means, for example, having a phase of intensive group work followed by a plenary session capitalising on the group work, yet still demanding active participation, but not to the same extent as before. A good flow means a good dramaturgical experience and also means mixing intellectual (cognitive), emotional and physical impulses. Overdoing intellectual impulses by, say, too many PowerPoint presentations, will harm to the participatory workshop process.

Watch out for group dynamics.
Not everybody feels comfortable with participatory processes. Workshop participants may come from an organisational culture where participatory dynamics are avoided rather than embraced. A good participatory process in a working group can be distorted when a dominant person imposes a leadership style. How to intervene in such a situation depends on the trainer's judgment. It is often good to stimulate the self-regulating abilities of groups, but there are moments where direct intervention from the trainer is required.

Hand over the stick.
Often there are moments in a training workshop when it is important for a participatory trainer to refrain from what he/she could probably do best. After a brainstorming session, for instance, the participants could pin the cards, and not the trainer. The participants could do the clustering with only some guidance from the trainer, provided they have already gained some experience in doing it. Subject matter or methodological questions directed at the trainer can be passed on to the plenary or possibly a resource person. It depends on the trainer's assessment of the right moment to hand over the stick. Confronting participants with an exercise where they have apparently too little experience to do it will have a discouraging effect. However, inviting participants to take responsibility for the workshop process creates trust and self-confidence. The same applies if the participants call on you to solve a problem. You may want to refer to the rule of thumb: "If somebody has a problem then he/she should take the responsibility to solve it".

Identify an appropriate workshop set-up to suit the participatory methods.
A classroom set-up for a training workshop does not necessarily aid the participatory process. Interactions among participants will be limited and the focus will be on the trainers solely. Therefore, settings favouring interactions, for instance groups sitting around tables, or ideally a half circle where everybody can see his/her fellow trainees, are important for any participatory training workshop. It is also important to have enough space to move around, to come together for energisers, for an information market or to form buzz-groups. Working groups also need a proper working space in separate rooms.

If possible, work in a team of trainers.
Trainers have different personalities and training styles and participants may perceive, accept and appreciate them differently. Being a trainer is very demanding and intensive. It requires phases of rest and reflection. While one trainer guides the group process, the other may reflect on the program details or the group dynamics and prepare the next step. Trainers need feedback on performance. Often, new materials are needed, cards have to be distributed or collected, a dialogue needs to be visualized or several working groups need to be supervised. This is another reason why it is good for a team of at least two trainers to work together. If you cannot have a co-trainer, insist on having at least an event assistant who supports you throughout the entire training. If a training report or proceedings is expected, make sure you assign one person, an assistant, to work on this throughout the training. It is very difficult to be a trainer while at the same time attempt to write a report.

Be flexible but still open for positive surprises.
Participatory trainers have a leading role regarding the steering of the workshop process. However, they will observe carefully if their assumptions of a certain method as part of a larger sequence of working steps are correct, well timed and make sense. If an exercise or sequence does not work well, they should be flexible enough to change plans. Being flexible also means throwing the ball back to the participants in order to reflect on the best way forward together.

1.3.2 Method types and uses

There are many different methods for delivering participatory training courses. Below is a list of some of the most common methods and tools. Successful participatory training courses typically draw upon a combination of various methods.

METHOD	KEY CHARACTERISTICS AND USE
Group work	· Consists of small groups receiving a specific task or problem that they need to solve or accomplish. · Highly participatory; all group members share knowledge and delve into the subject matter in greater depth. Advisable to let group members assume different roles during group work (moderator, time-keeper and presenter) to ensure a smooth process. · Useful for drawing out participants' knowledge on certain topics and for promoting interactive exchange.
Expert lecture	· Consists of a traditional classroom-type lecture where audience assumes a passive role and listens to presenter. · Top-down technique, useful for leveling the knowledge base among participants and delivering information that may not be well-known among participants. · Can be made interactive by asking questions or inviting participants to pose own questions.
Guided discussion	• Consists of a debate or dialogue guided by questions from the facilitator that are answered by the audience. • Typically, at least one question is developed for each specific learning objective. • Useful for drawing on the knowledge of the audience and for exploring new subjects.
Role play	· Consists of single participants or small groups assuming a given role and then interacting with other "actors" in a given, pre-defined fictitious setting. · Enables participants to become aware/be sensitized of actorś different positions and interests in discussions or negotiations. · Useful for learning to generate arguments and defend positions during discussions.
Brainstorming	• Consists of a relatively unstructured collection of ideas and insights on given topics. • A facilitator moderates the discussion and writes down participants' inputs. • Useful for gaining new insights and viewpoints that can then be used to deepen discussions/reflections.
Case study	• Consists of participants applying learned content and insights to solve problems based on a specific situation, which can be real or fictitious. • Enables participants to understand and apply knowledge in a dynamic setting. • Useful to draw attention to and analyze specific topics. • Fictitious cases aid in generating non-emotional engagement with real life-like situations.
Games and dynamics	· Consists of a wide array of group and individual tasks in a relaxed and potentially highly active atmosphere. Usually, groups or individuals get a task that they need to solve or represent. · Useful as ice breakers or energizers when interest or energy is dwindling, or to gain insights and lessons learned on specific issues. · Should be used appropriately and at the right times (when, for instance, energy is low such as after the lunch break): too many games can cause the event to lose seriousness and credibility, while not enough games may result in distraction and boredom.

1.3.3 Group work: different settings and formats

Short description

Group work is an indispensable feature in participatory training workshops. Group work will have different functions according to a particular sequence: generating ideas, reflecting on particular issues, working-out solutions, preparing a plan, among others. Compared to plenary sessions, group work provides much more room for participants to be active.

Main features

Working in small groups provides room for intensive dialogue and reflection. Ideally, all group members contribute and provide inputs. This would not be possible in a plenary session. Group members only mobilise their energy if they have a clear and common understanding of why they need to work together and where this will lead them. Working in small groups provides an opportunity for the participants to test their self-regulatory abilities. This will start with the designation of a facilitator and somebody to present the results. Depending to the setting, small groups (3 to 6 members) may even be able to proceed without a facilitator.

Settings for group work

- Participants remain in plenary session so they do not need to move around, e.g. when doing "buzz groups" (see next section).
- When groups need to have quiet time for reflection or space for discussion without disturbing others, they may be better off in separate rooms.
- Rotating groups or a carrousel (in one room) is a particularly interesting setting, allowing all participants to contribute to what each group is doing: A certain number of complementary tasks are assigned to different groups. Each group starts with a particular task and then moves on to the next task for commenting and complementing what the previous group has done. According to the number of participants, it may be useful to give the same task to two different groups and ask them to merge their findings into one presentation at the end.

Practical hints

There are some tips for trainers/facilitators to steer group work successfully:

- Provide detailed and clear written instructions for group work.
- Provide guidance for effective group work and ask the group to assign respective tasks.
- Suggest coming up with a visual product showcasing group work results (on a pin board, for instance).
- Respect the efforts the groups have invested but be mindful of the time spent presenting back to the plenary. Ask the groups to present only their discussion highlights and conclusions. It is very easy to loose participantś attention if everything that was discussed during group work is presented back to the plenary.
- Encourage the group to make assumptions where they do not have all the information. Exercises are not about finding the correct result, but about applying approaches.
- Support group work: Even if the trainers trust the self-regulatory abilities of a group, they should check from time to time to see if things are going smoothly. Groups may get stuck for some reason, e.g. lack of clarity about the task or difficult group dynamics, and will welcome a well-targeted intervention from the trainers.

1.3.4 Generating and processing ideas

Short description

The purpose of these methods is to discover new ideas and responses quickly. The emphasis is on getting as many ideas as possible, not on finding 'correct' answers. All the ideas generated through such a free flow then need to be clustered, i.e. putting together the ideas that belong in the same 'basket'. At a next processing stage, clusters may be prioritised to set the stage for deeper exploration. There are variations in how best ideas can be expressed: by writing cards individually, writing cards in small groups, so-called 'buzzing groups', or even visualising ideas immediately, i.e. writing them on a flipchart one-by-one.

Main features

Brainstorming: Using visualisation for generating ideas through brainstorming provides an opportunity for everybody in the group to express her/his ideas. It thus avoids the inevitable disadvantage of a question put verbally to a group to which only a few – the dominant speakers and maybe a few who are requested directly by the trainer – will get a chance to contribute. Generating ideas in this participatory manner increases the potential of visualising participants' experiences. It will thus demonstrate how much experience the group has in identifying the different features of a key issue. Generating ideas should necessarily lead to processing. This starts by exposing different ideas which will either be put one by one by the trainer/ facilitator – he/she will then already anticipate the clustering – or by the participants themselves. Some ideas might need clarification before the clusters are 'constructed' on a separate board. Normally the clusters do not provide sufficient 'structure' to proceed to the next working step; setting priorities is therefore recommended in order to end up with a limited number of topics/issues with which to go forward. It is important to clearly state that those issues which have not been prioritised will not automatically disappear. They may be considered at a later stage of the discussion.

Buzz groups: A different set-up for generating ideas can be through so-called 'buzz groups'. A plenary session breaks into sub-groups of 2-4 members – just by moving the chairs – to briefly discuss a particular question. The room soon fills with noise as each sub-group 'buzzes' in discussion. Normally, 'buzz groups' will agree on a few cards to be presented in the plenary session. 'Buzzing groups' are not only an option for generating ideas but also for reflecting on lessons learnt from a particular session, eventually with an input from the trainer followed by a plenary discussion.

Mind mapping is a fast and easy way of structuring and documenting the flow of ideas or information on a specific topic. Additionally, it allows the grouping of information according to importance. Whenever an idea, which was previously over-looked, comes up, it can easily be integrated into the mind map. Mind maps can be best elaborated in smaller groups. A plenary session is then needed to compare and synthesise the different mind maps. If groups had complementary questions to work on with the different mind maps, these can be put together to create a whole picture regarding a particular topic.

Practical hints

- Brainstorming sessions based on everybody writing cards, which are then visualised and clustered, are tricky because you risk having too many cards and spending too much time deciding which idea to attribute to which cluster.
- Questions to generate ideas need to be carefully formulated as well as the number of cards that these would result in. If, according to the number of participants, 50+ cards can be expected, it may be an option to write cards in buzzing groups.
- Clustering does not have to be done together. It can be delegated to a group of participants who will then check with the group to see if what they have produced is accurate. This is especially recommended for groups with more than 25 participants.

1.3.5 Questions: key to unlocking new doors

„For your information, I would like to ask you a question." (Levine)

Asking good, precise and intelligent questions that will help participants discover new insights and reflect on the situation is a manifestation of an effective trainer. Asking questions is a skill that every trainer should develop and eventually master. Experience and basic knowledge are mobilized through questions. During training, new steps in the group learning process should be opened by asking a carefully formulated and visualised question. It is useful to pre-test the question and potential answers once amongst the trainer team itself.

Types of questions
Basically, there are two types of questions:
the *closed-ended* and the *open-ended* questions.

Closed-ended questions are designed to recall factual information. These questions are usually answered with short sentences, or a yes or no. Closed-ended questions usually start with *Is*, *Are*, *Can*, *Do*, *Does*, and modal verbs such as *Would*, *Could*, and *Should.*

Open-ended questions are designed to elicit more ideas and more elaboration from the person responding. It may seek to reflect or draw a conclusion. This is a preferred type of question to be asked when initiating a discussion or for promoting team spirit. Open-ended questions allow for a deeper understanding of the group's objectives and draw out a person's knowledge level. They usually start with *What*, *Why* and *How.*

An effective facilitator does not just stop to ask effective questions. Proper timing and accurate delivery are also important. For good and effective question asking, the *APPLE technique* might be useful. APPLE is the acronym for:

- **A** sking the question,
- **P** ausing to allow the participants to comprehend the question and think of an answer,
- **P** icking a member to provide an answer,
- **L** istening to the answer provided, and
- **E** xpanding or elaborating on the answers provided.

EXAMPLE: TYPES OF QUESTIONS. THIS TABLE HAS BEEN ADAPTED FROM PICO TEAM 2003

TYPE OF QUESTION	USE	EXAMPLE
Question about the context	• Give information on facts and figures regarding a particular situation.	• How many people work in your department? • How often do you facilitate training workshops?
Differentiating questions	• To clarify a vague response. • To clearly state differences.	• For whom is the problem greater? • On a scale of 0 – 100, how big is XXX?
Questions for probing reasons and evidence	• Test the validity of a reason. • Put evidence on solid ground.	• Why is that happening? • Are these reasons good enough? • What do you thing causes XXX? • What evidence is there to support what you are saying?
Questions for probing implications and consequences	• To discover unexpected effects. • To discover alternatives that were possibly overlooked.	• What are the consequences of that assumption? • What are the implications for XXX? • How does XXX fit with what we have learned before?
Hypothetical questions	• To think about given boundaries. • To think outside of the box. • To check possible consequences jointly.	• If we speculate: If you were to do XXX, what would be the effects? • If you wanted to change the training approach in your organisation, how could this be possible?
Questions about the future	• Open the mind to look beyond what the situation is like today.	• What are your intentions once this difficult situation is over? • Where would you like to be two years from now?
Circular questions	• Change the perspective. • Introduce other perspectives.	• If I asked your colleagues about what made the situation so difficult, what would they say? • What are some alternative ways of looking at this? • If you had invited a representative from civil society to your meeting, what would have been different?
Questions about behaviour	• Help to understand what is happening without passing judgment. • Gain a more detailed perception about the behaviour of others and reframe. • Clarify your own contributions to a situation.	· What does Mr. Miller do exactly, when he is making you impatient? · What exactly happens, when nobody takes responsibility for XXX? · How exactly do you react when the team XXX?
Assessment questions	• To step back and use hindsight. • To draw lessons from a particular experience.	• What have you learnt from XXX? • What was encouraging for you? • If you started again, what would you do differently?

1.3.6 Active listening: five key elements

Listening is one of the most important skills of a trainer. How well he or she listens has a major impact on the training effectiveness, and on the quality of the interaction and relationship with the participants.

There are five key elements to active listening. They all help trainers ensure that they hear the other person, and that the other person knows that what they are saying is being heard.

1. Pay attention
Give the speaker your undivided attention, and acknowledge the message. Recognize that non-verbal communication also *speaks* loudly.

- Look at the speaker directly.
- Avoid being distracted by environmental factors, such as background noises or people moving.
- "Listen" to the speaker's body language.
- Refrain from side conversations when listening in a group setting.

2. Show that you are listening
- Use your own body language and gestures to convey your attention.
- Nod occasionally.
- Smile and use other facial expressions.
- Note your posture and make sure it is open and inviting.
- Encourage the speaker to continue with small verbal comments like *yes* and *uh huh.*

3. Provide feedback
Our personal filters, assumptions, judgments, and beliefs can distort what we hear. As a listener, your role is to understand what is being said. This may require you to reflect on what is being said and ask questions.
- Reflect what has been said by paraphrasing. *What I'm hearing is ...* and *Sounds like you are saying ...* are great ways to reflect back.
- Ask questions to clarify certain points. *What do you mean when you say ... Is this this what you mean?*
- Summarize the speaker's comments periodically.

4. Defer judgment
Interrupting is a waste of time. It frustrates the speaker and limits full understanding of the message.

- Allow the speaker to finish.
- Do not interrupt with counter arguments.

5. Respond appropriately
Active listening is a model for respect and understanding. You are gaining information and perspective. You add nothing by attacking the speaker or otherwise putting him or her down.

- Be candid, open, and honest in your response.
- Assert your opinions respectfully.
- Treat the other person as you would want to be treated.

1.3.7 Visualization

A picture says more than 1,000 words.

Short description

Visualisation facilitates participation because it makes discussions transparent and visible for everybody. It thus helps to express and easily share what emerges from dialogue and reflection. Visualisation sets the stage for a collective memory being not only visible, but also mobile, even in the long run as it keeps all necessary content for photo-documentation. Visualisation increases the possibilities of participation, especially for those who are not the first ones to speak up.

Main features

Using visualisation in an appropriate manner has numerous advantages in terms of enhancing participation and learning via:

- Increasing the transparency of the group process for all participants and helping participants identify with the results.
- Improving interaction as it significantly increases the opportunities for personal expressions.
- Encouraging the quieter group members to express themselves easily.
- Serving as a mirror for what may hamper communication: controversial views, frictions, misunderstandings.
- Encouraging short and concise expressions of concerns and/or statements.
- Providing an opportunity for somebody who wishes to make his/her expressions anonymously.
- Making a quick opinion poll of priorities in the group by everybody putting a dot against his/her preferences.
- Raising participants' ownership through good visualisation, e.g. by group work presented during a plenary session or where participants' views are incorporated into visualisation during the plenary session, and not just those of the trainer.
- Facilitating understanding because it stimulates our visual sense and not just our sense of hearing.
- Facilitating documentation.

Practical hints

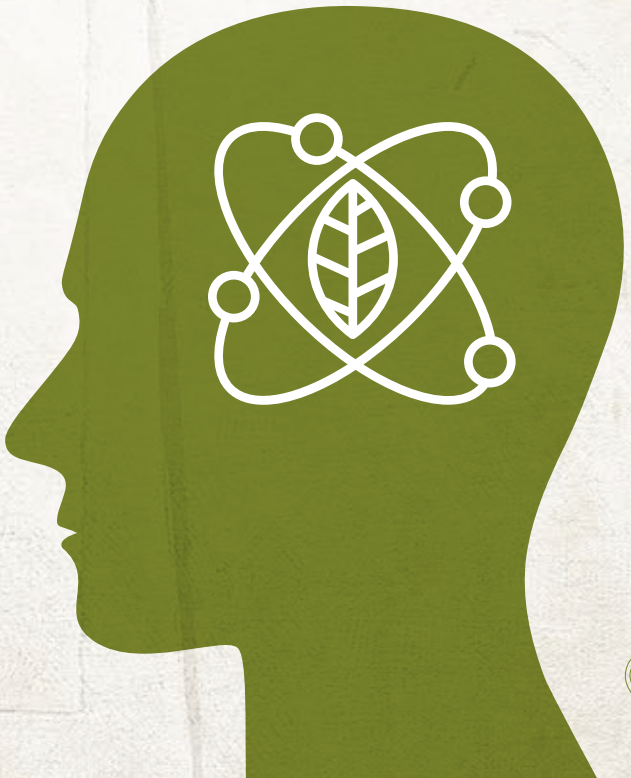
- Introduce writing rules right from the beginning (see graph above).
- Familiarise everybody with the use of colours, shapes and sizes of cards.
- Provide learning opportunities for the use of space and structure in visualisation.
- Provide constant feedback on the quality of visualisation.
- Serve as a model for sound and convincing visualisation.

Flipchart drawing: Britta Heine

1.3.8 Background information: How adults learn

Part of being an effective trainer involves understanding how adults learn best. Compared to children and teenagers, adults have special needs and requirements as learners.

- **Adults already know a lot**. Adults have accumulated life experiences and knowledge that may include work-related activities, family responsibilities, and previous education and training. In order to ensure that they retain and use the new information, they need to be able to integrate new ideas with what they already know. The trainer's job is to mobilize the participant's knowledge first, before adding new information, and subsequently to provide opportunities to discuss and reflect on new knowledge and insights, and to adapt it to individual circumstances.
- As with all learners, **adults need to be shown respect.** Trainers must acknowledge the wealth of experiences that adult participants bring to the training. These adults should be treated as equals in experience and knowledge, and should be allowed to voice their opinions freely in the group.
- **Adults are autonomous and self-directed.** They need to be free to direct themselves. Trainers have to act as facilitators, guiding participants to explore their own knowledge rather than supplying them with ready-made facts. They must facilitate the participants' own learning process and actively integrate the interests of the participants in the design of the training. They should allow participants to assume responsibility for presentations and group leadership.
- **Adults are goal-oriented.** Upon enrolling in a training course, adults usually know what goal they want to attain. Therefore, they appreciate a learning programme that is well organised and has clearly defined objectives and elements. Trainers must show participants how the training will help them to attain their goals. This classification of goals and course objectives must be done early on in the training.
- **Adults are relevancy-oriented.** They must see a reason for learning something. Learning has to be applicable to their work or other responsibilities to be of value to them. They may not be interested in knowledge for its own sake. Therefore, trainers need a sound understanding of the participants' motivations and must continuously try to harmonize training content and design with the life and work context of the participants. They should make participants think about the practical application of the newly acquired knowledge at his/her work place, including potential benefits of the new knowledge, as well as pre-conditions, difficulties, or barriers to applying the new knowledge and how to deal with them.



1.4 DESIGNING A TRAINING PROGRAMME

This chapter provides an overview of what needs to be taken into consideration when designing a training programme. Regardless of training course complexity, a thorough and deliberate preparation and design are indispensable.

Even if this training manual focuses on the role and use of ESAVs in a political decision-making process, we would like to present this chapter in such a way that it can also be helpful in designing training programmes and workshops in other fields. Training design is to be seen as a cross-cutting endeavour, i.e. that certain steps and tasks are relevant for whatever content the training programme or workshop might focus on.

Clarify objectives and major themes and topics
We assume that an institution takes the initiative to conduct a training programme and asks an internal or an external trainer - or a team of trainers – to prepare it. The first question the trainers must raise is regarding the objectives that the institution wants to achieve with the training. Discussing the objectives should also include a clarification on the expected outcomes and the desired impact of a training programme. Asking the client about objectives clarifies their expectations of the trainers. Trying to understand these objectives goes hand-in-hand with the exploration of underlying assumptions.

The trainers and the client-institution also need to agree on the approach. It will be fairly difficult to find a good compromise if the client wants an input and content-driven training, while the trainers are in favour of a participatory training approach. Regarding the 'approach', it is also necessary to discuss with the client-institution how the training programme should be structured. The following questions are helpful in this respect:

- Will training workshops consisting of a single event be sufficient or are there any follow-up modules necessary?
- Should a modular approach be given priority, which means organising the training process as a series of workshops, team and/or individual coaching?
- Based on the agreement on the participatory orientation of the training programme, what approach will be adopted for the training process, e.g. case method?
- On which levels should the training workshops take place, e.g. country, regional, sub- regional, supra-regional?

By clarifying the points above, the trainers should ensure that a training programme is the right way to achieve the client's objectives. Eventually, the trainers may suggest other capacity-building measures going beyond the trainers' mandate, such as peer-to-peer coaching, network creation or technical advice.

Learn about participants and their needs
The discussion with the client-institution will already have provided information on the participants in the training process. As the planning of the training programme unfolds, the answer to the question 'Who needs to participate?' will become more concrete. Criteria are indispensable in order to make a proper selection of participants.

If, for instance, train-the-trainer (ToT) workshops are part of the training programme, you need to define what is required from the trainers in terms of background and experiences in order to be adept in delivering a ToT. In defining criteria, the organisational context needs to be taken into consideration: will the participants be in a position to use their newly acquired capacities and competencies in a way that the expected outcome and impact can be achieved?

Other questions have to be taken into consideration when selecting participants for a training programme:

- How many participants do you want to have in a training workshop? What is the maximum and minimum number?
- What mix do you want to have in the group in terms of experience, professional backgrounds and institutional affiliations?
- How can you make the group gender-balanced?
- What are your assumptions about the participants' openness towards a participatory training approach?

Once the participants are selected, they need to be asked what they expect from the training programme. The trainers will certainly have assumptions about the participants' needs and expectations, and these need to be cross-checked with their actual expectations.

There is sufficient evidence that it is useful to provide future participants with an opportunity to indicate what they want to happen during the training workshop in order for them to see it as a success. One could also pose the corresponding questions on what should not happen. This feedback is valuable for helping the trainers in designing a training programme or a training workshop. In addition, potential participants can eventually be involved in the design process.

Arrangements for learning transfer
It might seem premature to talk about learning transfer at this stage, but preparing for learning transfer starts with the selection of participants. Conditions are favourable for learning transfer if a participant is mandated from within his organisation, i.e. his/her section or his/her department. Ideally, the superior defines his/her objectives for what he/she expects the staff member to take home from this training programme. The client organisation should do this as soon as possible.

Assigning a participant to attend a training workshop may include a participant bringing his/her case/project to the training workshop. Maybe there are already initiatives taken in his/her organisation on designing particular training programmes and the trainee has now the mandate to use the training workshop to get input and ideas for this internal design process to move forward.

The more an organisation shows interest and support for one of its members to participate in a training workshop, the more likely it is that learning transfer will be effective.

Draw the line between ideal and minimal objectives
At this stage of the training module preparation, there are still a lot of variables, which can only partly be influenced. With this level of uncertainty, it is useful to make the distinction between ideal and minimal objectives. These could be sketched in three scenarios. With these scenarios, the trainers are well prepared for a situation where they need to say: "Do we go for it or not?". If the client organisation suddenly faces unexpected budget restrictions and wants to do the training workshop in two instead of 5 days, it might be necessary for the trainers to say that they cannot reach the minimal objectives with such a reduced time budget. It might then be wise for you to reconsider the whole assignment and to possibly refrain from carrying out the training.

Clarify budget and logistics
This is a decisive milestone in the design process because it entails negotiations with the client-organisation about the budget and what is needed to reach the training programme's objectives. In most cases, this is a difficult balancing act. The client-organisation might push for increasing the number of participants per training workshop while you as trainers need to explain that you cannot reach certain learning objectives when you have a group of 30 instead of 15 participants.

Another critical parameter is 'duration'. The normal reaction of a client organisation with a tight budget is to cut down on the days for a training event and to increase the number of participants. It is crucial for trainers at this stage not to accept responsibility for achieving certain learning objectives, if the duration and number of trainees are not adjusted in such a way, that these learning objectives can be achieved. Trainers need to be prepared at this point to put convincing methodological arguments on the table regarding the two key parameters: duration and number of participants. Location is also an important issue. Choosing a location can be tricky. Being in a windowless room in a hotel close to an airport may seem like a good idea with respect to costs and transport, but it may backfire. It is, therefore, important for trainers to lobby for a suitable venue. A good venue provides working rooms with sufficient light and space, away from the daily life of busy organisations, but not too remote.

If they are unfamiliar with the selected venue, trainers should check whether it is suitable for a participatory workshop. Things to consider are:

- What is the flexibility in terms of seating arrangements?
- Is there enough space to practice the mobile visualization and to work in different arrangements?
- Is it possible to present visualization results on walls? How big is the seminar room and how is it shaped? Are there obstructive pillars in the room?

It is a good practice to look at the room or rooms where the training programme will take place before the course begins. Trainers should aim to arrive at least the day before all participants arrive, so that they have enough time to check the venue, make adjustments and prepare the room(s).

Prepare workshop structure

Based on the learning objectives, it is possible to make a draft of the workshop flow. Using a mind map may be useful at this stage. The workshop flow depicts the order of working steps from the opening and introduction, to the evaluation and closing of the training workshop. It should aid the trainers in developing an **exciting and effective collection of milestones for the whole learning process**. The workshop flow is like a map of how the workshop process is supposed to unfold. How it will really unfold is, of course, not predictable because this depends in large part on what the participants will or will not do.

The draft of the workshop flow will serve as a starting point for developing the training workshop scenario (see below). It will also help the trainers on the first day because it is better to explain the main working steps in this manner than in a detailed programme, where the participants are unlikely to grasp immediately what to expect.

Developing a day-by-day detailed plan

Based on the workshop structure, the trainers will get together to work out a detailed day-to-day scenario or script for the workshop process. Working on such a script enables you to get a feeling of what is feasible with a particular group of participants in a limited time. Introducing the notion of 'time' can make certain methodological options more or less feasible. However, it is not recommended to overdo it in the sense of starting the scenario development with the question: what should we do on the first day at 9 o'clock? Instead, start with the content and the methods, and at some point check how you can bring it into a meaningful timeline. There is no best practice for the structure of the scenario or script. Of course, you need to say something about the what (= content) and the how (= methods), but if you want to add, for example, a column labelled 'material needed' you are free to do so. A script may be structured as a table with the following information.

Time	Activity	Methods / Techniques	Materials needed / Observations	Responsible Trainer

The main task in scenario or script development is to combine certain content with particular methods in such a way that a dynamic process of joint learning can unfold. Of course, the flow chart of the workshop process already sketches out much of the plot, but the real dramaturgic work happens in scenario development.

Making use of a broad methodological repertoire is crucial at this stage. Methodological variability helps to keep the learning process dynamic through participants taking an active role, which they will not be willing to take if certain methods are overdone – e.g. lectures, brainstorming, group work. Even group work can be overdone if participants get the impression that they are being sent repeatedly to group work sessions without proper sharing, analysis and synthesising during the plenary sessions.

Clarify documentation and reporting
Trainers need to decide beforehand, in consultation with the client organisation, how the results and the process of the training workshop are to be documented. The scope of documentation, i.e. if it is done 'only' for the participants or if the documentation should be made available, possibly in a more elaborated form (report, handbook), to a wider audience, is a point that trainers and clients need to clarify ahead of time.

At this stage, the trainers also need to decide what they want to offer participants — in addition to the workshop documentation — in order to support their learning transfer. This support might include handouts, technical articles, case studies or a handbook, just to give a few examples.

Operational planning
Finally, the team of trainers will divide the tasks and responsibilities amongst themselves according to the training structure and the developed scenario. An action plan will highlight what needs to be done by whom and the corresponding level of importance. This plan will facilitate the preparation work of the team prior to the training workshop. It will include the preliminary agenda for the final planning meeting, which the trainers will have on the day before the participants arrive.

1.5 FEEDBACK, REFLECTION & LEARNING

Feedback is often an entry point to reflection. From feedback, you can learn that in a certain situation you could have done better despite your best intentions. Of course, you could come to the same conclusion from self-reflection, but often it is more convincing if others confirm what you might have guessed. Even if you start from feedback there is still enough to do in terms of self-reflection, either on your own or together with others. It starts with two simple questions:

- What prevented me from doing things the way I intended to do them?
- If I could start again what would I do differently?

The topics and issues to reflect may be more or less complex. However, reflection will lead to a plan about what to do differently in a similar situation in the future.

From a learning perspective, one could say that you have learnt something because you have analysed your behaviour and identified or specified what you will and can do better in a similar situation. In addition, you already know that you will be in this situation in due course and you have/can make your plan about how to do things differently. This type of learning can be considered as single-loop-learning.

If you want double-loop-learning, you should organise yourself in a way that you benefit from feedback and reflection loops on a regular basis. You may have realised that you can do things differently, but not following the quick-fix-mode. Regular feedback and reflection loops would provide you with an opportunity to discover that the 'quick-fix-mode' does not work because there is something related to your attitudes or to your basic competencies, which you need to address. In addition, if you want to change something on this level it becomes indispensable to go for regular feedback and reflection.

Rules for feedback

Good feedback requires rules not only for the one giving, but also for the one receiving feedback. These rules may be modified according to particular settings in which feedback is practiced, e.g. a training workshop. Here we present the more general rules for giving and receiving feedback.

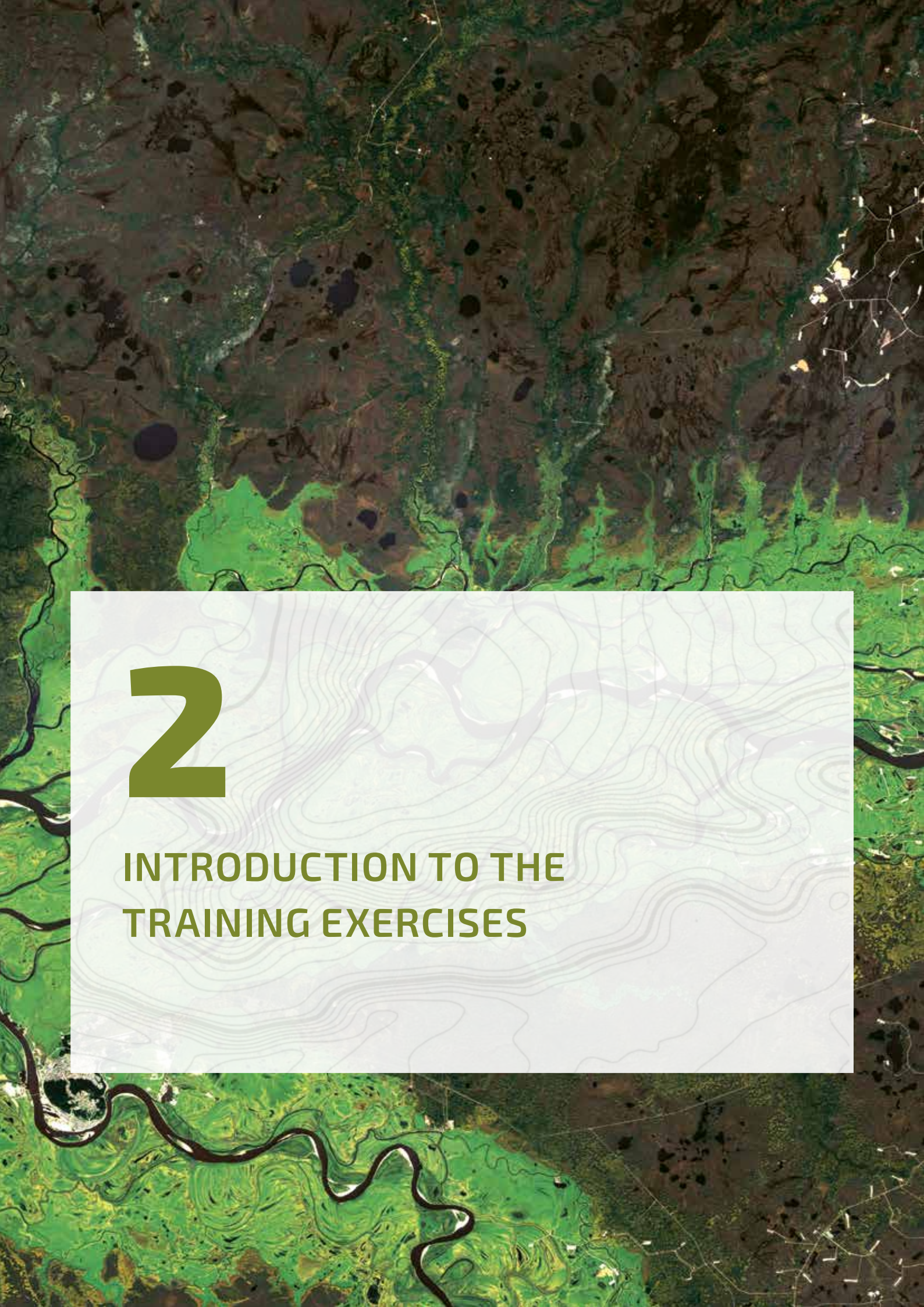
Rules for giving feedback

- Offer feedback, make appointments. In the context of a training workshop, it is much easier to arrange for such an appointment. Feedback loops are part of the training workshop, which, of course, should not prevent the trainers from offering feedback to whomever at any other point in time.
- Speak about behaviour, not personality. Why people act as they do is part of their personality. Give your fellow participants the opportunity to change as much as they want by saying "I observed you handled the situation in such and such a way. I liked that/I didn't like it and would prefer..." instead of saying "you're so wonderful/so aggressive/so...".
- First give feedback on things/behaviour that you consider positive. Feedback often is spoiled because the giver is eager to share his/her critical observations. Starting feedback with this will mobilise the defensive mode of the feedback receiver. Therefore, it is recommended to start with a positive feedback/appreciation for the person's efforts, which will trigger an open mind for listening to the critical observations at a later stage.
- When speaking about behaviour to be improved, describe it without judgment. Not being judgmental at this point is crucial to avoid a defensive mode of the feedback receiver. It is wiser to explain the consequences of certain behaviour in a particular situation, in order to make a convincing point about what could be improved.
- Give timely feedback, do not overdose. Giving feedback immediately may be appropriate but it may also be wise to let the emotions cool a bit before giving or receiving feedback. If you wait too long the time lag may become an issue ("Why did he/she wait for so long before telling me…?") and thus impede a good feedback session.
- Give feedback without making reference to others. Referring to somebody else ("I have heard from so-and-so that you…") makes your message less convincing. It looks as if you need this reference to make your point. According to the relationship between 'so-and-so' and the receiver of the feedback, the latter may switch to defensive mode.

- State clearly that this is your perception and not the ultimate truth. The best way to show that it is your perception is to speak in the 'I' form. The more you try to generalise ("It is good practice to…") the less convincing your message becomes. The advantage of the 'I' form lies in avoiding a "yes/no" discussion. If you say "I felt hurt by what you were saying to me this morning" the receiver cannot get away with a "No!".
- Your feedback is an offer that the other person may use – or not use. Pushing too hard for the receiver to proclaim what he/she should do differently can spoil the whole session at the very last moment.
- Do not expect immediate visible changes.

Rules for receiving feedback

- Ask for feedback when you feel there is room for improvement. In the context of a training workshop, you may ask for feedback just because you see yourself as a learner and you want to seize the opportunity of being together with experienced trainers.
- Be patient, make appointments. In the context of a training workshop, it is still good to be patient, but making appointments will be much easier.
- Refuse feedback when you do not feel comfortable with the issue, time and place, or the person. It is important for the receiver to assume this responsibility in order to avoid that feedback may become, e.g. in a training workshop, a window dressing exercise.
- Concentrate on listening, do not correct, explain and defend. This is the most challenging rule because there will most probably be moments where you feel invited to defend yourself. If the feedback you are receiving is strongly judgmental, you are allowed to do so. There may be the impulse to explain one's own behaviour, but it is hard to draw the line between explaining and defending.
- Ask for examples if you do not get the point. This is an important strategy to push the giver to be more concrete in his/her critical observation. He/she may hope that you have understood his/her point and so there is no need to be more specific.
- Think about feedback before speaking about it. Take a moment of self-reflection and do not feel under pressure to react instantly.
- Say "thank you" when it is enough. When you sense that the giver is adding on more and more critical observations, help him/her to come to the end of the feedback session.
- You alone decide on action. If you take action only to please the provider of feedback or because the giver has put too much pressure on you, you may try to do things differently, but without any conviction, meaning that you do not really improve on how you do things.



2

INTRODUCTION TO THE TRAINING EXERCISES

2.1 TRAINING STRUCTURE

The training consists of several exercises, which are presented in detail in the next chapter. In addition to the exercises, there are some other elements, which should be included in the agenda:

1. Welcoming and introduction of trainees and trainers.
2. Introduction to the training course (objectives and methodology of the training, working rules, expectations of participants).
3. Presentations of real-life examples by external experts or by the trainees.
4. Conclusions and closing remarks at the end of each day.
5. Summary of the last day at the beginning of the following day.
6. Course evaluation.

The time needed for taking notes and pictures for documentation needs to be considered as well, but not necessarily reflected on the agenda as this is something that the trainers should be aware of but is irrelevant for the participants.

The general time frame depends on the amount of working groups, the time spent on the lecture slides and the presentation and discussion of exercise results. You will probably have to adjust the training to the general framework, the audience and the time available for the course. The overall time required for the whole course can vary between two and five days (*see Annex 1* for examples of course agendas with different durations).

Welcoming and introduction of trainees and trainers
Welcome the participants to the training and start with an introduction round. There are several ways of introducing each other to the group. The easiest way is just to ask the participants to introduce themselves one by one.

A more vivid way of doing it is to ask the participants to stand in a circle. Then take a ball (or something similar), start by introducing yourself and throw it to one of the trainees. Ask this participant to introduce himself/herself (name, institution/background, what their "stake in CCA is" or why they are here) and then to throw the ball to the next one. Continue doing this until everyone has introduced himself/herself to the group.

- **Introduction to the course**
  After the welcoming round and introduction of trainees and trainers, give an overview of the training content. This includes objectives and methodology of the training, working rules, expectations of participants and logistical information. If you decided to prepare a documentation of the training, announce it during the introduction. This way the participants will not feel the necessity to take notes of everything that is said during the course.

- **Expectations of participants**
  Asking the participants about their expectations is a good way to adapt the training to their needs. Reacting to expectations increases the training's value. Prepare a board for collecting the expectations. Explain to the participants that they are allowed to add expectations during the whole training. Use the collected expectations to adjust your inputs as far as possible. Be clear and transparent about what expectations can be met during the training and what cannot. Explain the reasons (e.g. time limits, not within the thematic scope etc.) if something cannot be met.

You can also keep a "bin list". When participants raise issues, which are outside the scope of the current topics or require more time than you have available, chart them on a "bin" or "parking lot" list. You may tackle these issues as the training progresses, or you can schedule time to return to these questions

- **Working rules**
  When introducing the training, clarify the working rules together with the participants. Write them on a flipchart. For example:

We want to:
- Listen to each other
- Learn from each other (horizontal learning)
- Work on the basis of assumptions
- Participate in an active way
- Ask whenever there is something we do not understand
- You can go fishing 3 times (this means that the participant can be mentally absent and instead of making up excuses can just say: "I went fishing")
- We do not use laptops or mobile phones during the sessions
- Be on time
- Have fun

Conclusions and closing remarks

At the end of each day, the participants should reflect on the most important points. Ask them, for example, "What was good and important for you today?" and "What questions are still left open and should be considered tomorrow?". You can give a preview of the next day, select trainees for Bakul TV *(see on the right)*, and provide logistical information, if necessary.

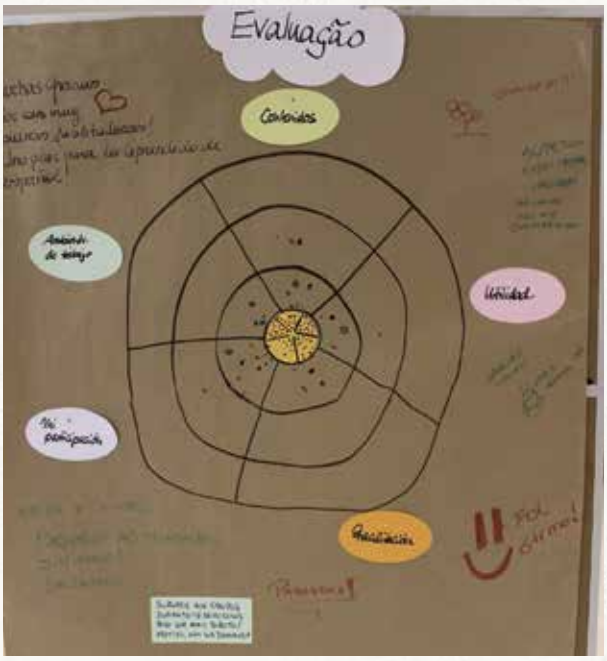
Summarising main learning

As a way of summarising main learning of the prior day, you can include a newscast every morning starting from the second day onwards. Explain in plenary the idea of the newscast and how it works. Ask the participants who would like to organize a news session. Try to advertise it the best way you can. Select 1-2 people to organize the next broadcast. If they want, they can choose other trainees to help them. Ask them to use their creativity for organizing the TV news (setup, decoration, ppt, etc.). You can also consider playing the role of the news presenter in the first broadcast, to make sure that the trainees understand the idea of "TV Bakul". Keep in mind that this role-play might not be appropriate for each group constellation or cultural surrounding.

TV Bakul

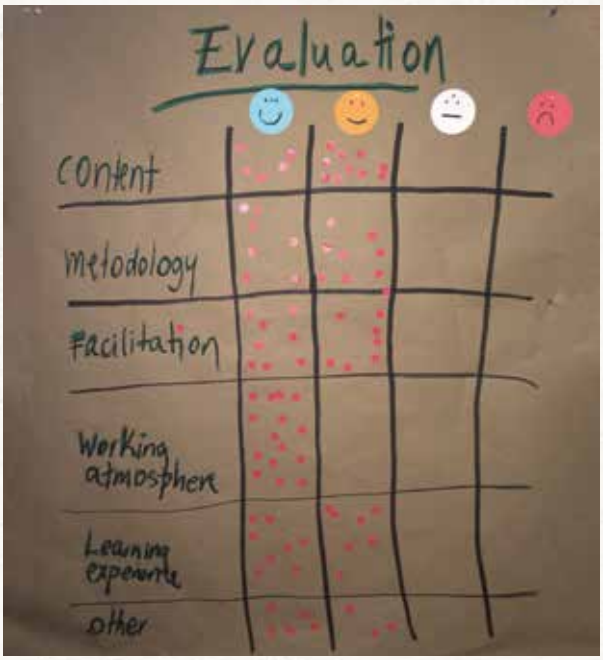
Course evaluation

At the end of the training always conduct a course evaluation. There are different ways of doing this. You can do a verbal evaluation in the plenary, where you ask the participants what they learned and liked or what they missed and disliked. You can refer back to the participants' expectations collected on a board during the training and discuss whether they have been fulfilled.

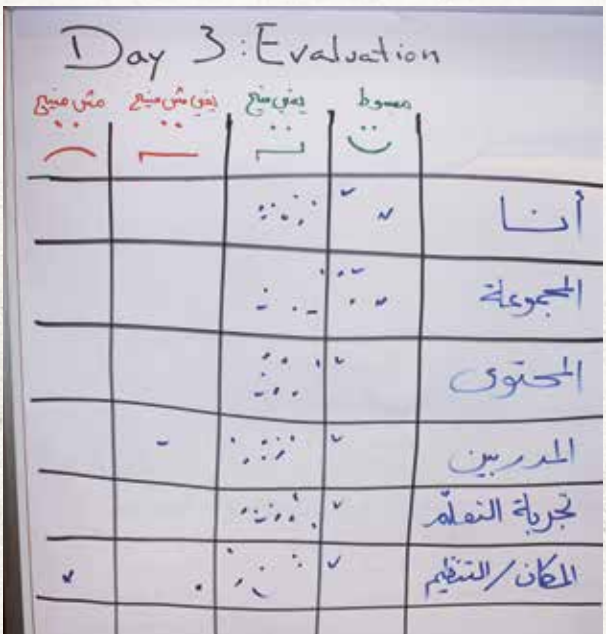


Additionally, or instead of the verbal feedback, you can conduct a simple query using a smiley-face matrix, where the trainees can evaluate different components of the training. Prepare a blank matrix, with the components to be evaluated, and the various levels of satisfaction. The components can include presentations/theoretical inputs, case work, facilitation, time management, location, logistics, atmosphere, etc. Use 3 to 5 smiley faces for the evaluation. The components can be evaluated by the trainees according to whether they were very happy, happy, satisfied, unhappy or annoyed. If you want to make sure that the participants state their opinion on each component more clearly, use an even number of smiley faces, e.g. four. Thus, leave out the satisfactory smiley face.

Explain the meaning of the smiley faces and the categories to evaluate to the trainees. After this, leave the room or turn the matrix around so that participants can vote privately. Give each participant one voting dot per component to be evaluated or give them a marker. Ask participants to vote one by one. After they have finished with the marking, go back to the room, turn the matrix around and do a short analysis of the results.



You can complement the evaluation matrix by asking participants to write cards on what they liked and what they would improve (i.e., what they did not like or what they would have done differently). You can have different colored cards for each of the two categories. Explain that the cards are anonymous. Invite participants to pin them on a pin board. You may go over the cards in plenary right after looking over the matrix and include them in the event s documentation.



Documentation
It is recommended to provide a documentation or proceedings of the training. Ideally, this should be sent to the trainees not later than two weeks after the course. The documentation consists of:

- A short summary of the content of the theoretical inputs and exercises
- A summary of the discussions in the plenary (main statements)
- Photos of the visualized material (definitions, illustrations, exercise results)
- Photos of the participants (including a group photo)
- A list of participants with their contact information
- An agenda of training
- All presentations in pdf-format

If possible, try to have somebody help you in taking notes during the plenary discussions. Also, take pictures of important things you visualized during the training, especially the exercise results and the evaluation, but also of the participants while they are working. Consider taking a group photo, which can be put on the cover sheet of the documentation. People will always prefer to go through the documentation if pictures of the group are included. Include the agenda of the training and the list of participants. When sending the document, add all presentations that were given during the course in pdf-format.

Remember that under the new EU personal data protection rules you need to ask participants for permission for their names, contact details and pictures to appear in the documentation. You can do this by adding a column in the participant list where you ask them to give their consent. If they do not agree, you must delete or blur their faces from pictures and not include their names or other contact information.

Logistical requirements
Venue
Concerning the venue, a training course for 20 participants ideally should include:

- A conference room of >80 sqm with daylight (and A/C if appropriate)
- At least two breakout rooms of >12 sqm with daylight (if the conference room is much larger or the breakout rooms are large enough for two working groups, one breakout room should be enough). If additional rooms are not available, or far away from the conference room, think of setting up workspaces in the garden (if available) or within the large meeting room. Just make sure that they offer a good working atmosphere.
- A separate 'trainers' office' where they can leave their things and prepare course material is nice to have. If trainers are in the same hotel (strongly recommended!) a trainers' office is not necessarily needed.
- We suggest asking for a conference room with no tables (except the trainer's table plus two or three tables for displaying things) and all the chairs set in a large semi-circle to allow easy movement. If available, chairs with foldable tablets are usually appreciated by participants. However, in some cultures, participants feel more comfortable with a table in front of them. Be aware of this and arrange the room in a way that participants feel comfortable. If tables are preferred, arrange them in horseshoe form. Trainers must be prepared to discuss the arrangement with participants and adjust if necessary.

Technical equipment and materials
- Video projector
- Laptop
- Screen or white wall
- Camera for the photo documentation (cel phone with a good camera should suffice)
- 5-10 pinboards (that can be used at both sides) plus brown paper
- 1-2 flipchart stands and paper
- 10 full boxes of pins
- 3-5 roles of strong sellotape or sticky tape
- Glue sticks
- Scissors
- Markers: approx. 50 black + different colours
- Approximately 200-250 rectangular cards of different colours
- Oval and round cards (big and small), approximately 50-60

2.2 OVERVIEW OF TRAINING SESSIONS, EXERCISES AND MATERIALS

2.2.1 At a glance: Training materials

DOCUMENT	CONTENT
Manual for trainers (this document)	Information for trainers on how to design, prepare and conduct the training.
PowerPoint presentations	Arranged by sessions: • 0: Intro-training • A1: Ecosystem services approach • A2: IES approach (summary) • B: Case work and exercises • C1: Ecosystem services assessments • C2: Methods navigator • D: Governance • E1: Economic valuation • E2: Policy tools
Training materials for participants	Training document includes: • Information on fictitious case Bakul • Exercises • Summary of IES approach • Additional information (glossary of terms, list of ecosystem services, overview methods for economic valuation)
Additional materials	• Map of Bakul (hardcopy, large: at least A2 in size) • Ecosystem services icons *(http://www.teebweb.org/resources/ecosystem-services/)* • IES symbols • Exemplary results for exercises • Exemplary training documentation

BEFORE THE TRAINING – CHECKLIST

TOPIC	TO DO	SUGGESTED TIME FRAME
Prepare agenda	• Adjust agenda to training context • Optional: Plan details of field trip (see session E and exercise 5 for details on this)	4-6 weeks before training
Speakers	• Identify and invite (external) speakers	4-6 weeks before training
Training materials for participants	• Revise materials, customize if necessary • Print	2 weeks before training
PPTs	• Customize PPT presentations	1 week before training

2.2.2 Summary table (training sessions and materials)

IES STEP	SESSION	(LEARNING) OBJECTIVES	TRAINING MATERIALS	TYPE	TIME (MIN), APPROX.
	Intro: Introduction to the training	• Introduce trainees and trainers. • Become familiar with the overall learning goals, the training methodology and the schedule. • Establish rules/ agreements.	• **PPT: 0-Intro-training**	**Plenary**	**45-60**
	Session A1 1) Introduction to ecosystem services approach	• Become familiar with basic terms and concepts. • Explore the ecosystem services approach and its underlying rationale.	• **PPT: A1-Ecosystem services approach**	**Presentation and Q+A**	**60**
	2) Introduction to IES approach	• Gain an initial idea of the IES stepwise approach.	• **PPT: A2-IES approach (summary)** • **Participants materials**	**Presentation in plenary (PPT or pinboard with IES approach)**	**15**

	Session B:
	
	1) Introduction to Bakul and exercise 1
		• Receive an overview of the fictitious case study and its main features.
		• Become familiar with the case study.
			• **PPT: B-Case work and exercises**
			• **Participants materials**
			  • **Bakul (info and map)**
			  • **Getting familiar with Bakul (exercise 1)**
				Interactive presentation in plenary (PPT or map)	**60**

1+2	**2) Exercise 2**	• Understand the importance of scoping.
		• Practice linking development objectives (and related activities, elements of human-well-being) and ecosystem services.
		• Prioritize ecosystem services by means of a multi-criteria-assessment.
			• **PPT: B-Case work and exercises**
			• **Participants materials**
			  • **Where the story begins (exercise 2)**
			  • **List of ecosystem services**
				Working groups and presentation in plenary	120

IES STEP	SESSION	(LEARNING) OBJECTIVES	TRAINING MATERIALS	TYPE	TIME (MIN), APPROX.
3	**Session C:** 1) Introduction to ecosystem services assessments	• Understand main characteristics of ecosystem services. • Explore different methods for ES assessments. • Gain an understanding of important issues for ES assessments.	• PPT: C1-Ecosystem services assessments	Presentation and Q+A	60
	2) Methods navigator	• Learn about the ValuES Methods Navigator and its features.	• PPT: C2-Methods navigator	Presentation and Q+A	20-30
	3) Exercise 3	• Explore conditions and trends in the supply and demand for the ecosystem services. • Understand spatial and temporal issues. • Explore and discuss drivers of change in ecosystems and ecosystem services and their underlying causes. • Identify stakeholders behind the drivers.	• PPT: B-Case work and exercises • Participants materials • Carrying on with the assessment (exercise 3)	Working groups and presentation in plenary	120
4	**Session D:** 1) Governance	• Get an overview of governance issues and related definitions. • Discuss different types of incentives. • Raise awareness for the importance of understanding the institutional and cultural framework.	• PPT: D-Governance	Presentation and Q+A	30
	2) Exercise 4	• Get an overview of stakeholder's positions, interests, values and needs. • Change perspectives. • Gather information on existing and possible conflicts and alliances. • Compile an overview of existing incentives that influence ecosystem management within the scope.	• PPT: B-Case work and exercises • Participants materials • Appraising the institutional and cultural framework (exercise 4)	Role-play and feedback discussion in plenary	90-120

IES STEP	SESSION	(LEARNING) OBJECTIVES	TRAINING MATERIALS	TYPE	TIME (MIN), APPROX.
5	**Session E:** 1) Economic valuation	• Understand the rationale for (economic) valuation of ecosystem services. • Explore different purposes of valuation of ecosystem services. • Get an overview of methods. • Discuss critical issues.	• PPT: E1-Economic valuation	Presentation and Q+A	60+

	2) Exercise 5	• Explore the purpose and viability of economic valuation in Indare.
		• Discuss opportunities and risks of economic valuation and alternatives.
			• PPT: B-Case work and exercises
			• Participants materials
			  • Applying economic valuation in Indare (exercise 5)
			  • Overview valuation methods
				Working groups and presentation in plenary	60-90

5+6	**Session F:** 1) Policy tools and entry-points	• Get an overview of policy instruments and measures that can help to capture ES costs and benefits. • Better understand decision-making processes and how to influence them. • Discuss criteria for choosing policy options. • Explore important issues for implementation.	• PPT: E2-Policy tools	Presentation and Q+A Could be done partly with pinboards and flipchart	45

	2) Exercise 6	• Identify suitable policy options that will sustain the capacity of ecosystem services to meet the needs of the people most effectively.
		• Identify entry points to key decision-making processes.
			• PPT: B-Case work and exercises
			• Participants materials
			  • Putting the pieces together (exercise 6
			  • Summary policy tools
			  • Optional: Speech of the governor (see Session F2 in this manual)
				Working groups and presentation in plenary	105

IES STEP	SESSION	(LEARNING) OBJECTIVES	TRAINING MATERIALS	TYPE	TIME (MIN), APPROX.
6	**Session G:** **Wrap-up IES approach**	• **Summarize key features of the IES approach.**	• **Pinboard** • **IES manual**	**Plenary** **Optional: Working groups**	**15-45**
	Optional: Planning for action	• **Reflect how the newly acquired knowledge and skills can be applied in the own work context.** • **Plan next steps.**	• **Example of matrix**	**In plenary**	**45-60**

2.3 DETAILS OF TRAINING SESSIONS

2.3.1 INTRODUCTION TO THE TRAINING

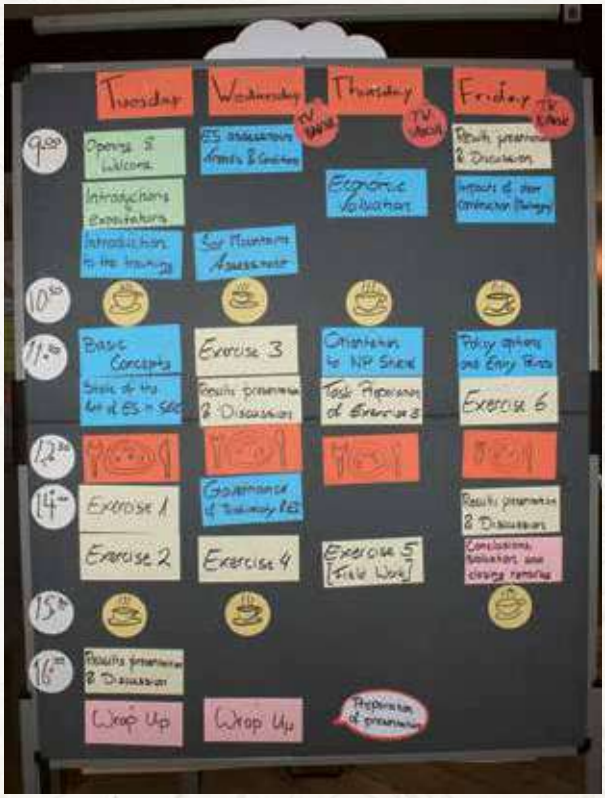
Time consideration (min)	Input/ presentation	Exercises/case work	Discussion/ reflection	Total
	15–30		30–45	45–60
Objectives	1) Introduce trainees and trainers. 2) Become familiar with the overall learning goals, the training methodology and the schedule. 3) Establish rules/agreements.			
Overview & sequence	1) Presentation of participants and trainers – getting to know each other. Collection of aexpectations. (30-40 min). 2) Presentation of overall agenda, training objectives and methodology. (10 min) 3) Develop together with participants agreements/rules of conduct. (5 min)			
Material	• **PPT: 0-Intro-training (options for visual statistics, objectives and methodology)**			
Preparation	• **Prepare pinboard with overall agenda.** • **Transfer the content of the slides to flipchart.**			
Key messages	• **Active and participatory learning approach: requires commitment and active participation.** • **Trainers act as facilitators, not teachers.**			

After the welcoming round and introduction of trainees and trainers, give an overview of the training content. This includes the objectives and methodology of the training, working rules, expectations of participants and logistical information. If you decided to prepare a documentation of the training, announce it during the introduction and make sure you ask people if they do not mind having their pictures taken and included, also their names, in the documentation. If someone disagrees, you are going to have to blurr their faces from pictures and not include their names on any publishable lists.

Asking the participants about their expectations is a good way to adapt the training at least to some extent to the trainees' needs. Reacting to expectations increases the training's value.

Prepare a board for collecting the expectations. Explain to the participants that they are allowed to add expectations during the whole training. Use the collected expectations to adjust your inputs as far as possible.

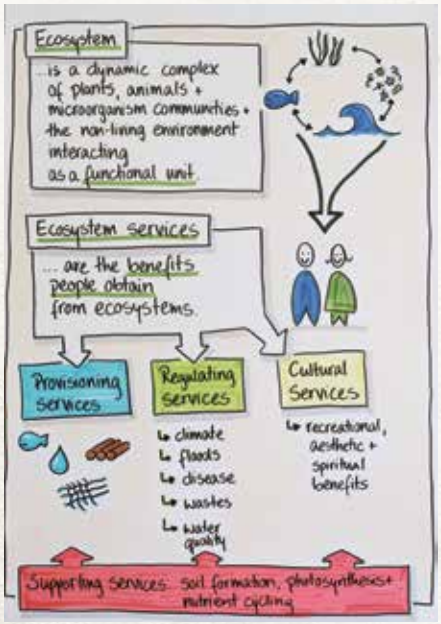
Examples of agendas on pinboards



2.3.2 SESSION A: INTRODUCTION TO ECOSYSTEM SERVICES APPROACH

Time consideration (min)	Input/ presentation	Exercises/case work	Discussion/ reflection	Total
	45		15	60
Objectives	1) Become familiar with basic terms and concepts. 2) Explore the ecosystem services approach and its underlying rationale.			
Overview & sequence	1) Presentation by trainer or invited expert. (45 min) 2) Plenary discussion + reflection. (15 min)			
Material	• **PPT: A1-Ecosystem services approach**			
Preparation	• **Identify speaker or prepare input.** • **Optional: Prepare flipcharts with key concepts.** • **Optional: Transfer key messages to flipchart for session wrap-up.**			
Key messages	• **The idea of ecosystem services speaks to many decision-makers, for example in regional planning, infrastructure, finance, rural development or urban management.** • **The ecosystem services approach is a way to encourage discussion about societý s interdependence with nature and what this means both socially and economically.** • **Applying an ecosystem services approach can help to change common perspectives on the environment, since the links between nature and society are made explicit.** • **It is a potent tool for mainstreaming efforts and for leveraging real changes in the policies and decisions that drive development and conservation.**			

A description of ecosystems and ecosystem services

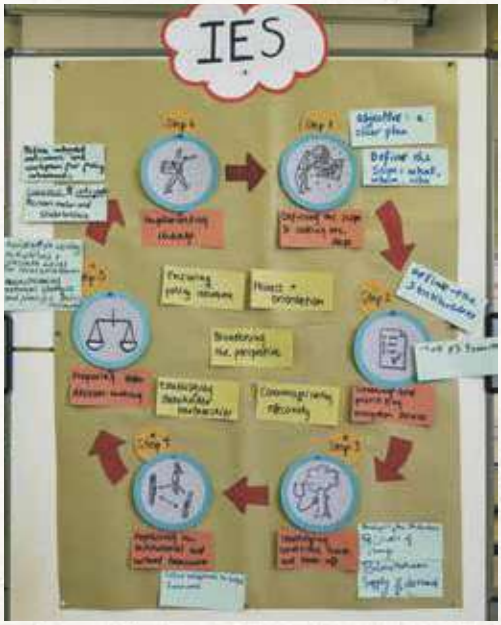


Source: Britta Heine

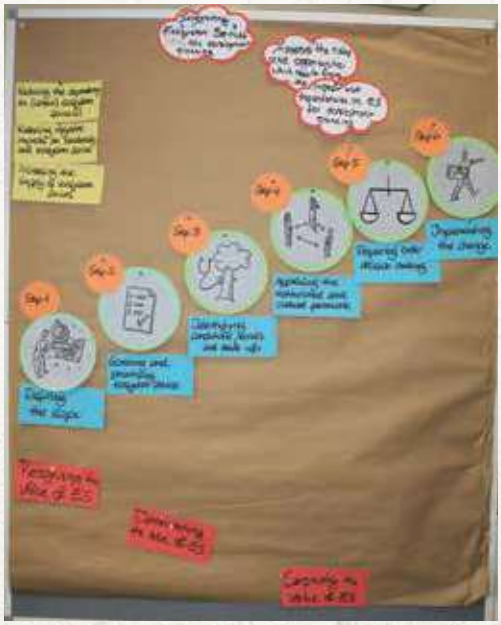
2.3.3 SESSION A: INTRODUCTION TO THE IES STEPWISE APPROACH

Time consideration (min)	Input/ presentation	Exercises/case work	Discussion/ reflection	Total
	15			15
Objectives	1) Gain an initial idea of the IES stepwise approach.			
Overview & sequence	1) Presentation by trainer (15 min). Introduce steps and main features. 2) Refer to summary in participant materials. Steps will be explored in more detail one by one.			
Material	• PPT: A2-IES approach (summary)			
Preparation	• Prepare overview of IES approach on pinboard. Leave it on the board for the rest of the training. • In addition, you can prepare a pinboard with the TEEB conceptual framework. The four dimensions can be presented one after another to underpin the sequence of the training and/or for wrap-up/recap			
Key messages	• The IES approach offers a structured methodology to help development planners take account of the risks and opportunities that arise from peoplé s dependence and impacts on ecosystem services. • It is a flexible and process-oriented approach that is straightforward to apply. • In principle, the IES approach can be applied at any level or scale – across an entire country, in a particular site or for a specific sector. The IES approach is particularly relevant at local and sub-national levels. • The IES approach can be applied to any sector. It has obvious relevance to projects and programmes that have direct impacts or dependencies on the natural environment. It identifies multiple entry points for integrating ecosystem services into development planning and policy implementation.			

IES approach: circular representation



IES approach: linear representation



2.3.4 SESSION B: INTRODUCTION TO BAKUL AND EXERCISE 1

Time consideration (min)	Input/ presentation	Exercises/case work	Discussion/ reflection	Total
	15	45		60
Objectives	1) Receive an overview of the fictitious case study and its main features. 2) Become familiar with the case study.			
Overview & sequence	1) Introduction to Bakul by trainer. (15 min) 2) Exercise 1 (45 min) • Reading and questions for clarification. (15 min) • Plenary discussion. (30 min)			
Material	• **PPT: B-Case work and exercises** • **Participants materials** • **Bakul (info and map)** • **Getting familiar with Bakul. (exercise 1)**			
Preparation	• **Make sure participants are familiar with the main features of Bakul! They can refer to the information on Bakul from Bykipedia (included in Annex 2 in this manual). You can use the PowerPoint presentation to introduce the case story and the map to illustrate your story. Try to make it both informative and entertaining. Explain that you will all fly together to visit a beautiful tropical country named Bakul. Be creative!** • **Prepare flipchart with exercise objectives (or use PPT slides).** • **You can prepare a pinboard for visualizing the results before the exercise.**			
Key messages	• **There are clear links between ecosystems, ecosystem services and economic activities.** • **These connections reflect a dual relationship: Economic activities are either dependent on certain ecosystem services or they can affect ecosystems and ecosystem services in certain ways. We speak of dependencies and impacts of economic activities on ES.** • **Behind any of these relationships are stakeholders who stand to benefit or lose from changes in these connections.** • **Trade-offs, or giving up something in order to gain something else, are a common feature in decisions related with the management of ecosystems and ecosystem services.**			

Exercise 1: Example visualization of results

GETTING FAMILIAR WITH BAKUL (EXERCISE 1)

1. What are the main economic activities and trends in the country?
2. Which ecosystems and ecosystem services are most important for the economy of Bakul?
3. Can you identify possible trade-offs between economic activities and ecosystem services?
4. Which main stakeholder groups are involved and who is winning, who is losing from the current development patterns?

Information and tips for conducting the exercise

See Annex 2 for general information on Bakul; participants get this information in their exercise booklets. Once you have introduced Bakul and the participants have read the general information, ask the participants to identify the main economic activities in the country. Then ask them on which ecosystem services these economic activities depend on and on which services they have an impact. Finally discuss which stakeholder might benefit from the economic development and who might lose considering the impacts on ecosystem services.

Explain and discuss the term trade-off (you may write the definition on a flipchart) related with the interactions between economic activities and ecosystem services, as well as between economic activities and between ecosystem services in and of themselves. You can ask the following questions: Which economic activities have an impact on an ecosystem service that is important for another economic sector? How do economic activities compete for the same ecosystem services? What may be the long-term result of such a competition?

Consider that stakeholders can be winners and losers at the same time, depending on their relation to the economic activity and the different forms of dependence and impact on the ecosystem services. For example, coastal communities may benefit from well-developed beach tourism, through the creation of jobs or indirect income opportunities, while at the same time they might be affected in the long run by the impacts of tourists on the environment (e.g. increased waste generation, impacts on the landscape through infrastructure development, loss of cultural values, etc.). Highlight that stakeholder groups are heterogeneous. For example, participants will most likely mention the government as a stakeholder. It is important to emphasize here that there are different sectors within the government (environment, agriculture, finance, health etc.), with different interests, political agendas, power and mandates.

Do not spend too much time on this exercise. The goal of this exercise is that participants get familiar with some characteristics of the ecosystem services concept –trade-offs, dependencies and impacts, winners and losers- and with the country Bakul. If time is running short, you can be selective. Focus on a few activities and ecosystem services. You can produce a table on a flipchart such as the one below (but not necessarily with so many details). Look at the visualization example at the beginning of the exercise explanation.

ECONOMIC ACTIVITY	DEPEDENCE AND IMPACT ON ECOSYSTEM(S) AND ECOSYSTEM SERVICES	STAKEHOLDER	
		BENEFITS	LOSES
Palm oil production	Forests (conversion to agricultural land) • Soil fertility • Water • Maintenance of biodiversity • Carbon storage • Habitat for species • Pollination services • Biological control • Local climate • Moderation of extreme events • Landscape beauty • (...) Rivers • Water quality (discharges of pesticides and fertilizers) • (...) Agro-ecosystems • Soil fertility • Biodiversity • Pollination services • Landscape beauty • (...)	• Palm oil farmers • Foreign investors (perhaps international economic interests/ political pressure/ international treaties) • Government (through taxes) • Employees in agribusiness sector • Public sector for agriculture, and finance • (...)	• **Smallholders** • **Population** • **Public sector for food security (competition between oil palm farms and food production)** • **Public sector for environment** • **Ministry of labour and social policy (migration of smallholders to the city due to loss of land)** • **Public sector for urban development (migration to the cities will lead to increased informal settlements)** • **Health sector (water pollution)** • **(...)**
Textile sector	Watersheds • Water quality • Habitat for species • Recreational services • (...)	• Factory owners • Employees in the textile industry • Public finance sector • (...)	• **People living downstream (water consumers)** • **Cattle farmers** • **Farmers** • **Public sector for environment, agriculture, and health** • **(...)**
Beach/ mass tourism (Exportul coastal resorts)	Coast and sea (through water pollution, increased waste, etc.) • Water quality • Landscape beauty • Recreational services for population, nature tourism • Cultural services • Maintenance of biodiversity • Habitat for species • Waste-water treatment (of wetlands and ocean) • Fish resources • (...)	• Beach tourists • Public sector for tourism and finance • Population (through employment and services) • (...)	• **Fishermen** • **Population (loss of cultural identity and services, increased environmental problems etc.)** • **Public sector for environment, health, and culture** • **Nature tourists** • **(...)**

ECONOMIC ACTIVITY	DEPEDENCE AND IMPACT ON ECOSYSTEM(S) AND ECOSYSTEM SERVICES	STAKEHOLDER	
		BENEFITS	LOSES
Industrial fishery	Ocean (through overfishing and pollution) • Maintenance of biodiversity • Habitat for species • Food provision • Touristic services • (...)	• Fishery companies • International fish market • Consumers (national and international) • Intermediary buyers • Public sector for finance • Government (through taxes) • (...)	• **Artisanal fisherman (competition for fish resources)** • **Marine tourism (competition between fishery sector and tourism – diving, snorkelling, sport fishing)** • **National consumers (decreasing fish resources increase market prices)** • **Tourism sector** • **Public sector for tourism, labour and social policy, food security, culture, and environment)** • **(...)**
Artisanal Fishery	**Depends on the techniques used. Negative impacts could be:** **Coastal zone** • **Habitat for species (destruction of reproduction areas)** • **Water quality (pollution to a lesser degree than fishery companies)** • **(...)** **Positive impacts could be:** • **Ecosystem services of coastal areas are maintained**	• Artisanal fisherman (food security, and income) • Public sector for agriculture, food security, employment, culture, and tourism • Communities (food security) • Tourism • (...)	• **Fishery companies (possible impact on breeding areas may affect fish populations)** • **(...)**
Subsistence agriculture	**Depends on the techniques used. Negative impacts could be:** • **Water quality** • **Habitat for species** • **Pollination services** • **Carbon storage** • **(...)** **Positive impacts could be:** • **Ecosystem services of agro-ecosystems are maintained**	• **Smallholders, indigenous people (food security)** • **Public sector for agriculture, food security, employment, culture, and tourism** • **(...)**	• **Palm oil industry** • **Public economic sector** • **International market** • **(...)**

ECONOMIC ACTIVITY	DEPEDENCE AND IMPACT ON ECOSYSTEM(S) AND ECOSYSTEM SERVICES	STAKEHOLDER	
		BENEFITS	LOSES
Timber extraction of natural forests	Forests (depends on the type of timber extraction) • Maintenance of biodiversity • Pollination services • Habitat for species • Carbon storage • Water • Erosion prevention • Moderation of extreme events • Local climate regulation • Medicinal resources • Raw materials (wood and non-timber forest products) • Wild food • Touristic services • Cultural services • (...)	• Timber companies • Smallholders • Palm oil industry • Public sector for agriculture, forest, finance, and employment • (...)	• Smallholders • Indigenous people • Bakul's population • International community (loss of biodiversity and carbon storage) • Nature tourism • Public sector for environment, tourism, and culture • (...)
• (...)	• (...)	• (...)	• (...)

2.3.5 SESSION B: EXERCISE 2

Time consideration (min)	Input/ presentation	Exercises/case work	Discussion/ reflection	Total
	0	90	**30**	120
Objectives	1) Understand the importance of scoping. 2) Practice linking development objectives (and related activities which constitute elements of human-well-being) with ecosystem services. 3) Prioritize ecosystem services by means of a multi-criteria-assessment.			
Overview & sequence	1) Introduction to exercise. (5 min) 2) Reading and questions for clarification. (10 min) 3) Group work. (75 min) 4) Presentation in plenary, feedback and wrap-up. (30 min)			

Material	• **PPT: B-Case work and exercises**
	• **Participants materials**
	  • **Where the story begins (exercise 2)**
	  • **List of ecosystem services**			

Preparation	• **Prepare flipchart with exercise (or use PPT slides).** • **Make sure to have a pinboard for each group.** • **Suggested group division:** **Group 1: Promotion of biofuels, Development of community tourism, Food security** **Group 2: Construction of a new water treatment plant, Enhancement of timber export, Food security** **Group 3: Improve quality and quantity of cocoa for export, Promotion of biofuels, Food security**			

1 Applies for exercises 2, 3 and 6.

Presentation of working group results and feedback[1]	Option 1: The trainers first listen to all presentations and then give feedback. Option 2: Presentation to representatives from Indare Development Committee (formed by trainers and, if at all possible, by one or two invited experts). Before the exercise starts, identify 2-3 representatives of the Development Committee (e.g. Economy/Finance, Agriculture, Environment). Instruct the representatives of the development committee to comment briefly on the proposals from their institutional point of view after the presentation of working groups' results. Trainers can be part of committee or can assume the facilitation (technical secretary) and provide a general feedback at the end of the activity.
Key messages	• Development goals strongly depend on one or more ecosystem services. Human well-being depends directly or indirectly on functional ecosystems (e.g. indigenous communities). • Development goals can have significant impacts on ecosystem services. • A more detailed assessment of conditions and trends of relevant ecosystem services and possible policy options and instruments is needed. In order to conduct a detailed assessment of specific ecosystem services, it is important to zoom into the most important ES in relation to specific development goals so that we can look at biophysical dynamics, drivers of change and trade-offs more closely. This exercise deals precisely with prioritizing ES. • Existing trade-offs between development goals (biofuels & cocoa; biofuels, water & water purification plant; timber & biofuels, etc.) and between these and ecosystem services should be looked at more closely. • Extreme events will become more frequent and more intense because of climate change. The restoration and conservation of natural infrastructure could be cost-effective and could have multiple benefits (ecosystem-based adaptation). • Balancing short-term benefits, for example, from biofuel production with long-term perspectives, such as the lessons learned in Exportul, is important in order to embark in a sustainable development path. • This analysis provides an opportunity to develop a "green" agenda. • Governance issues are important and the institutional and cultural framework therefore needs to be analysed.

Exercise 2: Example visualization of results

WHERE THE STORY BEGINS (EXERCISE 2)[2]

The last several months have been especially hard for the province of Indare. The dry season lasted longer than usual and one of the two main rivers of the province, the Milaku River, almost dried out. Afterwards, the wet season was unusually rainy. In the last month a large part of the Milaku River catchment area and even the capital Hanku have seen their worst flooding in living memory. The Milaku was totally out of control and affected life in the city for four days; the water purification plant had to be shut down.

During a meeting of the Indare Province Development Committee, several members expressed their serious concern about these recent events. They proposed to revise at least part of the development plan in light of these devastating trends. Among other issues, the government s 5-Year-Development-Plan prioritizes the promotion of biofuels, the construction of a larger water purification plant for drinking water in Hanku city, tourism development as well as the enhancement of timber and cocoa export.

One representative from the Ministry of Environment stated that, "the region's ecosystems are already under stress, especially from the combination of agricultural and urban expansion. People are not aware that the consequences of this trend go far beyond its local impacts. Costs and benefits will ripple throughout the region and society in unexpected ways. We need to show very clearly the choices that are at stake."

Another committee member replied that the economic gains from the biofuel initiative, new crops and processing plants were clear. There would be more and better jobs in the city and clear gains for farmers.

The representative replied, "I agree with you, but we should not forget that in this process there will be also stakeholders that will lose. Small-scale farmers, fishers and tourism operators will suffer the consequences. We should learn from the social and environmental costs associated with the development pattern of our neighbour province Exportul. The price of food will probably increase, harming the poorer sectors of society. We are going to have stronger floods, longer drought periods, higher costs for water treatment and further development of informal settlements in the city. Uncontrolled expansion of biofuel crop production will actually strengthen unsolved social and environmental problems. "

Indare Development Committee Members:

1. Chair: Governor of Indare
2. Vice-Chair: Director of provincial and municipal development
3. Permanent Secretary: Director of provincial and municipal rural development

Permanent members:

- All governors of districts and communes
- Director of provincial and municipal commercial unit
- Director of provincial and municipal economic and financial unit
- Director of provincial and municipal water resources and meteorological unit
- Director of agriculture, forestry and fishery unit
- Director of energy unit
- Director of tourism unit
- Director of environment unit
- Director of provincial and municipal health unit
- Director of provincial and municipal public work and transport unit
- Representatives of the Indigenous federations
- Representatives of IOs, NGOs

"We already have a lot of problems with the timber companies; biofuels are going to be even more difficult as international demand is high and a lot of money is involved. Some of our people have already talked about leaving their lands and if this trend continues we are going to lose our forests and homes," said one of the representatives of the Indigenous federation.

2 Text partly adopted from: WRI (2008): Ecosystem services. A Guide for Decision makers. Washington D.C.

This was the beginning of a long and intense discussion…

Finally, the Committee decided to revise the development plan. With funding provided by an international development agency, they organized a call for proposals in order to get a rapid assessment regarding the connections between the development plan and the environment. The ultimate objective is to understand the risks and opportunities that the development plan poses to the sustained provision of ecosystem services and subsequently foster policy changes to address these issues. The following development objectives were selected for an initial assessment:

1) Improve quality and quantity of water through the construction of a larger water purification plant for Hanku city
2) Promote biofuels encouraging private sector participation (crop production and construction of biofuel plant)
3) Develop community tourism (particularly in the Tabakalues reserve and the Nelam wetlands)
4) Promote timber exports
5) Improve the quality and productivity of cocoa for export
6) Improve food security

Your task:
You are a consulting team that wants to submit a proposal to revise the development plan of Indare. The objective of the first part of this assessment is to review the viability of selected development objectives/measures considering their dependency and impacts on ecosystem services.

1) Identify the linkages between two or three development objectives and ecosystem services (trainers will indicate which development objectives each team will analyse). The linkages are based on two dimensions: the development measures either depend on or have an impact on different ecosystem services. These dependencies and impacts can be strong or weak. Consider if there is competition for ecosystem services among the different development measures. Use the table below to record your findings.

2) Based on the ranking you come up with, select up to six priority ecosystem services.

Indaré s 5-Year-Development-Plan:

Vision:
A hub of international trade driven by a highly productive, diversified, knowledge based, private sector-led economy, steered by morally-upright, visionary and competent leaders alongside law-abiding and self-reliant citizens living in an environmentally-community.

Development concerns and challenges:
- High rural unemployment and low wealth creation
- Inadequate spatial, physical and economic integration
- Low agricultural productivity
- Low export performance

Major objectives:
1. Improve the standard and access to basic education
2. Improve quality and quantity of water flows through the construction of a larger water purification plant for Hanku city
3. Agriculture and fishery support services for increased productivity and income
4. Promote of biofuels encouraging private sector participation (crop production and construction of biofuel plant)
5. Develop community tourism (particularly in the Tabakalues reserve and the Nelam wetlands)
6. Promote timber exports
7. Improve the quality and productivity of cocoa for export
8. Improve food security
9. Prevent crime and launch anti-criminality campaign

3) Is the current scope of assessment (Province of Indare, administrative boundaries) appropriate for the revision of the development plan? You can make suggestions.

Summarize your results in order to present it to the Development Committee during the next meeting. Agree on one or two spokespersons from your group. You will have 5-10 minutes for your presentation. Try to be brief and work hard on sound and convincing arguments (both technical and political!) in order to get the contract for a detailed assessment of the ecosystem services you identified.

MATRIX FOR IDENTIFYING IMPACTS AND DEPENDENCIES

Ecosystem services	Development objectives/ measures						Sum of scores
	No. 1		No. 2		No. 3		
	D	I	D	I	D	I	
List ALL ecosystem services here							
Sum of scores							

D Depends on the respective ecosystem service
I Impacts on the respective ecosystem service
2 Moderate to strong relevance
1 Weak relevance
0 Not relevant or connected

Note: Each row corresponds to an ecosystem service, while each column relates to a key development goal or activity from Indaré s development plan. Assigning a score to each of the cells according to dependence/ impact (0 = neutral, 1= weak relevance, 2= moderate to strong relevance) is a way of prioritising the most important ecosystem services. The rows with the highest aggregate score show those ecosystem services that are of key importance due to various sectoŕ s dependence on them and how much they are impacted by different activities This priorization helps zoom into ecosystem services that are more crucial and hence allow you to focus the subsequent, more detailed, analysis. The highest aggregate score of the columns provide you with information on development issues and stakeholders that are more dependent or are having the greatest impact on ecosystem services.

Information and tips for conducting the exercise

- **Multi-criteria-assessment:** The table below gives an example of the results of the qualitative assessment to be generated during this exercise. Adding the scores in each line will help identify priority ecosystem services. The development goals that depend on or impact ecosystem services the most are the ones with the highest total score. The sum of each column shows which development goals/economic activities/elements of human well-being are most at risk, because of their high dependency or impact on ecosystem services.
- The discussion on the **degree of impacts and dependencies** will probably take some time. As the analysis is subjective, participants may end up arguing quite a bit to decide which score to assign. Encourage participants to make assumptions if they do not have all the information about, for instance, precise development goal characteristcs.
- **Trade-offs:** When taking a look at the table, it becomes apparent which development goals compete for the same ecosystem services. If we take, for example, fresh water, most development goals depend strongly on this service. At the same time, several services have a strong impact on this service. The two development goals "timber for export" and "promotion of biofuels" have an impact on water quality, and thereby affect the development goals "water purification plant" and "eco and community-based tourism". Naturally, when analysing whether competition between development goals exists, the spatial distribution of the ecosystem service provision and of the impacts on the service need to be considered. Discuss in plenary how the development plan can reconcile goals that compete for the same ecosystem services, and what would happen in the long run. An initial analysis of existing dependencies and impacts can help define which sustainable development goals need to be reviewed. The consideration of spatial issues will help to design a coherent development plan.
- The general **scope** is the province of Indare and its 5-Year Development Plan. However, discuss in plenary that it could make sense to involve other provinces in different stages of the process. For example, the province of Belandu lies in the upper part of the watershed. Therefore, the quality and quantity of river water flows depend on the types of upstream land uses. With better land use systems, for instance by reducing deforestation, and less contamination by, say, reducing pollution from the textile industry, a new water purification plant in Hanku could become unnecessary.

EXEMPLARY RESULTS FOR EXERCISE 2: DEVELOPMENT OBJECTIVES AND ECOSYSTEM SERVICES

ECOSYSTEM SERVICES	DEVELOPMENT OBJECTIVES/MEASURES												SUM
	Promotion of biofuels		New water treatment plant		Timber export		Cacao Export		Eco and Community-based tourism		Food security		
	D	I	D	I	D	I	D	I	D	I	D	I	
PROVISIONING SERVICES													
Food	2	**2**	0	**0**	0	**1**	0	**1**	1	**1**	2	**2**	**12**
Raw materials	2	**2**	0	**0**	2	**2**	1	**1**	1	**1**	2	**2**	**16**
Fresh water	2	**2**	2	**0**	2	**1**	2	**2**	2	**1**	2	**2**	**20**
Medicinal resources	0	**1**	0	**0**	0	**1**	0	**1**	1	**0**	1	**1**	**6**
REGULATING SERVICES													
Local climate and air quality regulation	1	**2**	0	**0**	1	**1**	1	**1**	1	**1**	1	**1**	**11**
Carbon sequestration and storage	0	**2**	0	**0**	0	**2**	0	**2**	0	**0**	0	**1**	**7**
Moderation of extreme events	1	**1**	2	**0**	1	**1**	1	**2**	2	**0**	2	**1**	**14**
Waste-water treatment	0	**2**	0	**2**	0	**1**	0	**0**	1	**0**	1	**1**	**8**
Erosion prevention and maintenance of soil fertility	2	**2**	2	**0**	0	**1**	2	**2**	0	**0**	2	**2**	**15**
Pollination	1	**1**	0	**0**	1	**1**	2	**2**	1	**0**	2	**2**	**13**
Biological control	1	**2**	0	**0**	1	**1**	2	**1**	0	**0**	2	**2**	**12**

SUPPORTING SERVICES (you can exclude them from this table as they are supposed to be captured within the other groups of ecosystem services)													
Habitats for species	1	**2**	0	**0**	1	**1**	1	**1**	2	**1**	1	**2**	**13**
Habitats for species	0	**2**	0	**0**	0	**1**	0	**1**	1	**0**	2	**2**	**9**
CULTURAL SERVICES													
Recreation and mental and physical health	2	**2**	0	**0**	0	**2**	0	**1**	2	**1**	0	**1**	**11**
Tourism	2	**2**	0	**0**	0	**2**	0	**1**	2	**0**	1	**1**	**11**
Aesthetic appreciation and inspiration for culture, art and design	2	**1**	0	**0**	0	**2**	0	**1**	2	**1**	0	**1**	**10**
Spiritual experience and sense of place	2	**1**	0	**0**	0	**2**	0	**1**	2	**1**	0	**1**	**10**
Sum	**21**	**29**	**6**	**2**	**9**	**23**	**12**	**21**	**21**	**8**	**21**	**25**	

2.3.6 SESSION C: INTRODUCTION TO ECOSYSTEM SERVICES ASSESSMENTS AND EXERCISE 3

Time consideration (min)	Input/ presentation	Exercises/case work	Discussion/ reflection	Total
	60-90	90	**30**	180-210

Objectives

Presentation

1) Understand main characteristics of ecosystem services.
2) Explore different methods for ES assessments.
3) Gain an understanding of important issues for ES assessments.
4) Learn about the ValuES Methods Navigator and its features.

Exercise

1) Explore conditions and trends in the supply and demand for the ecosystem services.
2) Understand spatial and temporal issues.
3) Explore and discuss drivers of change in ecosystems and ecosystem services and their underlying causes.
4) Identify stakeholders behind the drivers.

Overview & sequence

1) Presentation ecosystem services assessments. (45 min + 15 min Q+A)
2) Presentation of methods navigator. (optional, 20-30 min)
3) Exercise 3 (120 min)
   - oIntroduction to exercise. (5 min)
   - Reading and questions for clarification. (10 min)
   - Group work. (75 min)
   - Presentation in plenary, feedback and wrap-up. (30 min)

Material

- **PPT: C1-Ecosystem services assessments**
- **PPT: C2-Methods navigator**
- **PPT: B-Case work and exercises**
- **Participants materials**
- **Carrying on with the assessment (exercise 3)**

Preparation

- **Prepare flipchart with exercise (or use PPT slides).**
- **Make sure to have a pinboard for each group.**
- **Suggested group division:**
  Group 1: Raw materials for biofuels, Recreation, Food provision
  Group 2: Water provision, Moderation of extreme events, Food provision
  Group 3: Erosion prevention and maintenance of soil fertility, Raw materials for biofuels, Water provision
- **Explain that the selection of ecosystem services has been done by the Development Committee using technical and political criteria.**

Presentation of working group results and feedback	Option 1: The trainers first listen to all presentations and then give a feedback. Option 2: Presentation to representatives from Indare Development Committee. Before the exercise starts, identify 2-3 representatives of the Development Committee (e.g. Economy/Finance, Agriculture, Environment). Brief the representatives of the development committee to comment in short on the proposals from their institutional point of view, after presentation of working group results. The trainer should assume the facilitation (technical secretary) and provide a general feedback at the end of the activity.
Key messages	• An ecosystem service assessment is part of a larger process. • Assessing ecosystem services is a multi-disciplinary task. • Aligning the ecosystem service assessment with its purpose is key to success. Be very clear about the management issue and research questions that are being addressed. • Methods shape what you measure: Different methods produce different results. • Assessments always shape values, even though they mainly try to measure them.

Exercise 3: Examples visualization of results

CARRYING ON WITH THE ASSESSMENT (EXERCISE 3)

Congratulations! Your presentation was successful and the Development Committee awarded you a contract for a more detailed assessment.

The results of the first assessment showed that a detailed analysis of the conditions and trends of ecosystem services is required in order to review the development plan and possibly identify alternative policies and measures. The Governor of Indare is especially keen on getting more information about ecosystems in his province, since investors are constantly pressing him to allow more palm oil plantations destined for biofuels. However, in spite of all the money in play, the governor is surprisingly cautious, as he is still dealing with consequences of the recent flooding.

Your team already conducted a literature review and identified several studies and legal documents (primarily environmental impact assessments) on the relationships between different sectors' activities and the environment. Literature included information on palm oil plantations, biofuel processing plants, timber extraction, water treatment, tourism and cocoa, among others. National and municipal databases and satellite images provided data on land use changes, food production, soil quality and other important socio-economic factors, such as income trends and demographic changes. A report of the Hanku municipality, that one of your team members was able to obtain, showed the risks posed to water treatment facilities from increases in sedimentation and river pollution. Semi-structured interviews provided information on stakeholder groups that were set to lose or win from the current development plans, either because some ecosystem services they depend on would be affected by other activities or because they were part of favoured sectors. Examples of such relations included the effects of biofuel plantations on soil quality and micro-climatic regulation and how this may affect small-scale subsistence farmers in the long-term while providing important financial rewards for biofuel entrepreneurs in the short-run.

How the recreational value of beaches declines if pollution increases was another example. This situation would affect both tourists and hotel operators and would contradict efforts to promote sustainable tourism in the country.

A more complete picture of the current environmental state of the province is finally taking shape. Essentially, you have found that the current situation is neither great nor terrible. The most pressing worry however, comes from the trends in the drivers that are causing the degradation. The pressure of almost all of these drivers is increasing. The conversion of forests to palm oil plantations, the use of pesticides and fertilizers, overexploitation of fisheries by industrial fleets, global climate change, population growth and economic growth are all becoming more intense. If these trends continue unchanged it will not be long before the provision of ecosystem services starts to decline, with foreseeable negative consequences on the quality of life in Indare province.
Based on various internal discussions and consultations, including your initial findings, and reflecting on the level of dependence and impacts of economic activities on ecosystem services, the Development Committee agreed on the following list of priority ecosystem services to be looked at in more detail:

1. Fresh water provision
2. Raw materials for biofuels
3. Erosion prevention and maintenance of soil fertility
4. Moderation of extreme events
5. Recreation
6. Food provision

Your task:
Trainers will assign two to three priority ecosystem services to each group for further analysis.

1) What are the conditions and main trends in the supply and demand for the selected ecosystem services?

Think about the current state of each ecosystem service and what would happen if current trends continue in the future. Be aware that many of the conditions and trends are going to be site specific and highly dependent on local conditions. Consider upstream-downstream relationships in watersheds.

2)What are the direct drivers of change[3] of ecosystem services and underlying causes (indirect drivers)?

Remember that drivers can cause both degradation and maintenance or conservation of ecosystems; and certain drivers may be affecting some and benefitting others.

3)Which stakeholders[4] are related with which drivers?

You can use the following table to organize the results. Remember: as in real life situations, you probably will not find all the information you need on the case. Look at the key trends and changes in the province of Indare and Bakul that are described in this course material and, if necessary, make assumptions.

You can use the following table to organize the results. Remember: as in life, you probably will not find all information you need in the given material. Whatever information you do not have, you can derive from the general trends of the country or make assumptions and educated guesses.

MATRIX FOR RECORDING ECOSYSTEM SERVICE CONDITIONS AND TRENDS, DRIVERS AND STAKEHOLDERS

Ecosystem services:	**Ecosystem(s) that generate(s) the service**	**Current condition of ecosystem service** **++ very good** **+ good** **- bad** **-- very bad**	**Trends in the provision of ecosystem service** *(going up, stable or going down)* (→ ↗ ↘)		**Drivers of change and underlying causes**	**Stakeholders and actions (related to the driver of change) and/or other motivations**
			Supply	**Demand**		

3 A driver is any natural or human-induced factor that directly or indirectly causes a change (MEA 2005). Direct drivers are those that have a direct impact on nature, such as land use change, pollution, invasive species and the impacts of climate change. Indirect drivers include those factors that underlie decisions to behave in a certain way, such as market prices, laws and regulations, consumer preferences and tastes. The latter are also called underlying causes of change.

4 Stakeholders can be groups or individuals that either affect or are affected by certain decisions or situations, and can be classified socioeconomically by, say, occupational group/sector, income level, and employment status.

Information and tips for conducting the exercise

The results of the exercise can be entered into the matrix above, which shows conditions, trends, drivers and related stakeholders. It will help in identifying related trade-offs.

- Participants will assess the **conditions (present state) and trends (future developments)** of the priority ecosystem services. It is important to highlight that ecosystem services vary in time and space (this issue should be explained in the presentation). When analysing the condition and trend of a service, the provisioning area needs to be defined. For example, for assessing the condition and possible trend of the ecosystem service "fresh water", one has to differentiate at least between the Coroné and the Milaku Rivers (see examples in matrix below). When assessing possible trends in the provision of ecosystem services (supply side) the changes in the demand for these services have to be taken into account. During the discussion of the results, highlight the different types of land use and their impact on the quality and quantity of ecosystem services.
- Explain that identifying current **drivers of change and underlying causes** will help to evaluate the potential effects of the development plan on these drivers. The resulting information will help reveal any associated risks (due to possible trade-offs) and opportunities of the development plan. In addition, point out that the information can also provide a baseline for comparing future changes in the ecosystem services.
- Indicate that **stakeholder groups** can often be linked to one or more drivers and that it is important to understand the relations among stakeholders in order to identify possible alliances and conflicts. Please be aware that up until now, we are not talking about incentives and the institutional framework. You can use the discussion to link this exercise with Step 4, which will look into the sociocultural and institutional framework.

EXEMPLARY RESULTS FOR EXERCISE 3

Ecosystem services:	**Ecosystem(s) that generate(s) the service**	**Current condition of ecosystem service** **++ very good** **+ good** **- bad** **-- very bad**	**Trends in the provision of ecosystem service** *(going up, stable or going down)* (→ ↗ ↘)		**Drivers of change and underlying causes**	**Stakeholders and actions (related to the driver of change) and/or other motivations**
			Supply	**Demand**		
Fresh water provision	**Milaku watershed**	-	↘	↗	• Forest conversion to agriculture. • Pollution caused by fertilizers and pesticides. • Livestock production: pollution and overgrazing, soil erosion. • Pollution by textile production. • Demographic change/ immigration. • Weak law enforcement. • Timber extraction. • Biofuel production (incipient).	• Livestock owners. • Smallholders upstream. • Textile industry. • City dwellers. • Smallholders downstream. • Belandu regional government institutions (agriculture, environment, economic development). • Timber companies. • Biofuel companies (incipient).

Fresh water provision	**Coroné watershed**	+	→	↗	• Timber extraction. • Management of the reserves up- and downstream	• HANCER reserve management. • Tabakalues reserve management. • Nelam wetlands management. • Smallholders and indigenous communities. • Timber companies. • Ministry for Environment.
Raw materials for biofuels	**Forests**	+	↘	↗	• Forest conversion to agriculture. • Timber extraction. • Demographic change. • International markets. • Cultural and religious issues (...)	• Smallholders and indigenous communities. • Biofuels investors. • Timber companies. (...)
	Wetlands	++	→	?	• Wetland conversion to agriculture and houses/ commercial property. (...)	• Smallholders and indigenous communities. • Housing sector. • Tourism sector. (...)
	Mountains	+	↘	?	• Land conversion to agriculture. (...)	• Smallholders and indigenous communities. (...)
	Agro-ecosys-tems	++	↗	↗	• National and interna-tional demand. • Technology and man-agement practices. • Missing/unclear property rights. • Biofuel production will increase supply and demand and cause trade-offs with other ecosystem ser-vices. (...)	• Smallholders and indigenous communities. (...)

Erosion prevention and maintenance of soil fertility	**Milaku watershed**	-	↘	↗	• Forest conversion to agriculture. • Livestock production: pollution and over-grazing, soil erosion. • Demographic change/ immigration. • Weak law enforcement. • Timber extraction. • Missing/unclear property rights.	• Livestock owners. • Smallholders upstream. • Smallholders downstream. • Biofuels investors. • Timber companies. • Belandu regional government institutions (agriculture, environment, economic development).
	Coroné watershed	+	→	↗	• Timber extraction. • Management of the reserves up- and downstream.	• HANCER reserve management. • Tabakalues reserve management. • Nelam wetlands management. • Smallholders and indigenous communities. • Timber companies. • Ministry for Environment.
Moderation of extreme events	**Milaku watershed**	-	↘	↗	• Land use upstream. • Infrastructure construction.	• Livestock owners. • Smallholders and indigenous communities. (...)
	Coroné Watershed	+	→	→	• Management of the reserves up- and downstream.	• HANCER reserve management. • Tabakalues reserve management. • Nelam wetlands management. • Smallholders and indigenous communities. • Ministry for Environment.

Recreation	**Forests**	+	→	↗	• Growing demand for tourism and recreation. • Loss of ecosystems and ecosystem services due to land use changes.	• Tourism operators. • Smallholders and indigenous communities. • Timber companies.
	Wetlands	+			• Growing demand for tourism and recreation. • Loss of ecosystems and ecosystem services due to land use changes.	• Tourism operators. • Smallholders and indigenous communities. • Fishery sector. • Housing sector.
	Mountains	+			• Growing demand for tourism and recreation. • Loss of ecosystems and ecosystem services due to land use changes.	• Tourism operators. • Smallholders and indigenous communities.
	Agroecological systems	+			• Growing demand for tourism and recreation. • Loss of ecosystems and ecosystem services due to land use changes.	• Tourism operators. • Smallholders and indigenous communities. • Biofuel companies. • Province Agricultural Development Unit (PADU).
Food provision	**Forests**	+	↗	↗	• Forest conversion to agriculture: increasing supply of food, but trade-offs with other ecosystem services.	• Smallholders and indigenous communities. • Timber companies.
	Wetlands	+	↘	↗	• Pollution of groundwater and rivers by fertilizers and pesticides. • Urban and industrial pollution. • Wetland conversion to agriculture and houses/ commercial property.	• Smallholders and indigenous communities. • Fishery sector. • Housing sector. • Tourism sector

Food provision	**Mountains**	+	→	↗	• Land conversion to agriculture: Increasing supply of food, but trade-offs with other ecosystem services. • Pollution of groundwater and rivers by fertilizers and pesticides.	• Smallholders and indigenous communities.
	Agroecological systems	+	→	↗	• National and international demand. • Technology and management practices. • Missing/unclear property rights.	• Smallholders and indigenous communities. • Biofuel companies. • Province Agricultural Development Unit (PADU).

(Source: Report card for the state of ecosystem services (WRI 2008), adapted).

2.3.7 SESSION D: GOVERNANCE OF ECOSYSTEM SERVICES AND EXERCISE 4

Time consideration (min)	Input/ presentation	Exercises/case work	Discussion/ reflection	Total
	30	60-75	**45-60**	135-165

Objectives	**Presentation** 1) Get an overview of governance issues and related definitions. 2) Discuss different types of incentives. 3) Raise awareness for the importance of understanding the institutional and cultural framework. **Exercise** 1) Get an overview of stakeholder's positions, interests, values and needs. 2) Gather information on existing and possible conflicts and alliances. 3) Have an overview of existing incentives that influence ecosystem management within the scope of the assessment.
Overview & sequence	1) Presentation: Introduction to governance of ES. (30 min + 15 min Q+A) 2) Exercise 4 (90-120 min) • Introduction to exercise. (5 min) • Preparation of statements. (25 min) • Role-play. (30-45 min) • Feedback, discussion of incentives and wrap-up. (30 -45 min)
Material	• **PPT: D-Governance** • **PPT: B-Case work and exercises** • **Participants materials** • **Appraising the institutional and cultural framework (exercise 4)** • **Additional information on institutional framework and stakeholders**
Preparation	• **Prepare groups for role-play (see Information and tips for conducting the exercise)** • **Prepare set-up for stakeholder meeting (e.g. chairs, name tags, welcome panel on flipchart)**
Presentation of results and feedback	• **Feedback from trainer (see questions for discussion and reflection below and in PPT B).**
Key messages	• **The governance structures related to ecosystems and ecosystem services are complex. Ecosystems are rarely subject to one form of management or regulation that is clearly enforced and understood by everybody.** • **A range of formal and informal, "modern" and traditional, private and collective governance systems may coexist simultaneously.** • **Many ecosystem services also have at least some of the characteristics of "public goods", meaning that people cannot necessarily assert unambiguous ownership rights over them, or be excluded from using or benefiting from them.** • **The combination of an ecosystem service's biophysical features and the social rules of access and control around it determine whether it has the characteristics of a public, private, common-pool or club good.** • **Even though adding sociocultural and institutional variables to an ecosystem services assessment may add complexity, the results are essential for identifying and weighing policy responses and instrument design (see step 5).**

Exercise 4: Set-up and discussion instances

STAKEHOLDER MEETING AT THE TOWN HALL (EXERCISE 4)

The Development Committee decided to organize a stakeholder meeting and to invite representatives from different stakeholder groups in order to express their opinions. The purpose of the meeting is to obtain a better understanding of stakeholder's positions and interests with regard to development planning in Indare province and to explore existing and possible conflicts and alliances.

Invitation

You are cordially invited to a meeting organized by the Development Committee of Indare province. The event will take place at the City Hall this evening.

On behalf of the Development Committee of Indare, I look forward to your attendance.

Sincerely,

Mr. B. Smith
Director of provincial and municipal rural development

Permanent Secretary of the Development Committee of Indare

Your task:
During this exercise, you will not be part of the consultancy team. Instead, you will represent one of the stakeholder groups invited to the workshop. You received the invitation letter to the workshop, but there is neither an agenda nor information on the objectives and participating groups.

Prepare a very short statement (not more than a few lines) where you point out the main interests and needs of your stakeholder group with regard to the development planning in Indare Province.

Base your statement on the information generated during the previous steps and the additional information (following pages). You can be creative too. Try to put yourself in the position of your stakeholder! Do not forget to choose one person to present the results during the stakeholder workshop in plenary.

ADDITIONAL INFORMATION ON CULTURAL AND INSTITUTIONAL FRAMEWORK

General issues:
Land tenure in Bakul is based on the Land Use Act of 1982 under which land is owned by the national government, communities or private individuals. Land rights are acquired through purchase, inheritance, appropriation, and designations for personal use within communal lands. An exception to the traditional land rights are the newly demarcated indigenous territories where indigenous people have power over how their land and resources are used, and must be involved in any decision-making process related with the land. Donor agencies and NGOs have been helping indigenous groups establish these boundaries and procure their land titles.

A large number of landholders however (especially small-scale landholders and indigenous communities) do not hold legal titles. Farmers often have to lease land from landowners. Groups such as these do not have real land use options and risk losing their land if they do not demonstrate an active use of the land, such as by farming. As land cultivation is driven by commercial production of profitable crops, it is dominated by mono-culture. In many cases, smallholders do not have enough land to grow their own food. Decreasing per hectare yields and the need to complement family incomes have led to significant rural-urban migration and migration to open forestland. Farmers have moved to the fringes of remaining forest, as forestland is considered to be promising for cash crop cultivation.

Due to the increasing demand for land, the lack of law enforcement, and the difficult registration process, informal mechanisms for utilization and administration are prevalent. Land is often leased to migrants, usually without a written tenancy agreement. The absence of well-documented and demarcated bound-

aries between parcels often leads to boundary conflicts. Urban informality is also a significant problem. In the last decade a great deal of precarious housing has sprung up in suburban areas around Bakul's cities

Bakul's forests and timber exploitation is regulated and promoted by the Forestry Division (FD) under the Ministry for Agriculture. The division conducts inventories, issues licenses for timber extraction and collects royalties and stumpage fees for felled timber trees. Forestry statistics show that managed forests make up to 45% of the remaining forests of Bakul.

Bakuls' policy framework for biodiversity and forest conservation is the Forest and Wildlife Policy published in 2005. Despite the existent legal basis, biodiversity conservation faces multiple challenges, such as weak law enforcement and lack of effective monitoring. Besides lacking financial resources, there is an absence of political willingness in Bakul's government towards forest and biodiversity conservation. The low priority of environmental issues is further aggravated by the recurrent popular opinion that Bakul faces larger problems than biodiversity conservation. So far, important conservation efforts, particularly the strengthening of controls on timber operations and the creation of the National Park System, have been financed through international development agencies. The **fisheries sector**, both artisanal and industrial, is one of the most important economic sectors of Indare; contributing substantially to production and income generation in the coastal region. Local demand for fish continues rising due to population growth and the relatively cheap price relative to other available protein sources. The fisheries sector has also grown due to unemployment and drought in inland areas; both of which have compelled people to move to the coast.

The Indare province is home to two **indigenous groups** – the Tabakalues and the Hankules. Both groups are forest-dwellers; they depend strongly on the forest for their existence, their culture and their beliefs. Among other things they believe that the spirits of their dead ancestors find refuge in the forest and remain there, watching the tribe and ensuring that all rules remain in observance. The Tabakalues way of life has been strongly influenced by a long period of contact with the colonists. While they struggle to retain their identity and cultural practices, they are also attracted to modern life, which often drives them to live in fringe settlements closer to cities. Most families of both groups live on simple subsistence economy. The Government declared part of the Tabakalues land as indigenous territory -the Tabakalues Reserve. Most indigenous communities still do not have secure land titles.

Main stakeholder groups

Bakul Nature Conservation (BNC, Environmental NGO): Like other environmental NGOs, BNC is up in arms against the biofuel complex. BNC argues that the refinery will employ no more than 100 people, as most of the production process is automated. In addition, senior staff will come from overseas. The development goals on cash crop promotion are seen as a disgrace, since they will only foster more monoculture, further displacing small farmers and devastating the forest. This will surely mean that more floods like last month's will likely occur in the future. The wetlands will be degraded and this will have disastrous impact on its biodiversity. The Nelam-wetlands are world-famous for their species diversity, especially with regard to birds. The survival of the national Bakulu bird, which only exists in this area, is in serious danger. Only five breeding pairs are left and the bird is extremely sensitive to disturbances. Food prices will go up as land is used to produce biofuel for export instead of food. In their opinion, the new water treatment plant would not be necessary if further logging in upstream regions would come to a halt and so water quality would improve and current levels of sediment run-off would be reduced. Even international NGOs are joining the criticism, as they are concerned about the forest and the wetlands. BNC together with other NGOs is threatening to bring this case before the international community.

Biofuel Company: The biofuel company is trying to persuade the governor to launch a biofuel promotion strategy. If they set up a new plant in Indare, they argue that they will be able to create new income opportunities for the local population. In the beginning, 2,000 new jobs would be created, and after the first two years, the number of job opportunities would continue to increase. New jobs created could even reach five digits if you consider indirect job creation. The company ensures that the facilities they operate have the highest environmental standards and are ISO 14001 certified. The support of social community projects is part of their company's social responsibility strategy. They insist that their presence will have a significant impact on Indare's economy. The company has already partially financed the building of its plant as the Province Agricultural Development Unit (PADU) has assured them that the final approval of the operation permit is already on its way and a mere formality.

Cocoa cooperative of smallholders (COCOS): The cooperative was set up to represent the interests of the smallholders and improve the cocoa value chain. The farmers are afraid that if water quantity and quality worsens and soil fertility declines there will be no more available land for agricultural purposes. They fear that they might be forced to sell their land and migrate, maybe even to the city, the same trend that has happened in the neighbouring province of Exportul. They are also worried that cocoa prices might fluctuate a lot and are reluctant to continue investing in maintaining cocoa plantations. In the past, the government has often made promises that they have not kept and as a result, many farmers have lost their land. For this reason, the farmers do not trust the state at all.

Fishing cooperative: The fishers are very concerned about the decreasing water quality and the depletion of fisheries in the delta and in coastal areas. Primarily formed by coastal fishers, they are worried that they can no longer easily catch fish and crabs where they used to and need to spend a lot more time or go to different places to come back home with a decent catch. In their opinion, the increasing utilization of fertilizers and pesticides has driven away the fish in and around the delta and competition from bigger international fishing fleets are putting a lot of pressure on sea fish stocks. They are also afraid that the plan to expand the city port will materialize and what this will mean for their communities.

Governor: The flood control infrastructure had failed miserably and the governor is worried about the public's harsh reaction to the flooding. In addition, there have also been recent public outcries against the promotion of biofuel production in the province. He suspects that the larger NGOs in Bakul are behind this sudden change in political mood but still does not understand why environmentalists would oppose biofuels. He had been assured this was a "green" industry. But what is the alternative? In addition, the indigenous people have organized major protests against the illegal encroachment of timber companies and the general political disinterest in their issues. Donor agencies and NGOs were carefully watching the situation and supporting the indigenous people who have been blocking main roads and calling for international support. With all of the social interest in these current events the governor ponders whether or not the "environmental issues" are a good subject for elections at the end of the year.

Provincial and Municipal Rural Development Unit (PMRDU): The biofuel initiative will create new jobs in the processing plants and more revenues for farmers. Due to the increasing worldwide demand for biofuel, the director sees a potentially unlimited need for palm oil and with it clear economic gains. He also sees the opportunity to attract national and foreign investors and thereby boost the economy of Indare. The province of Exportul had historically held the concentration of the agribusiness industry and had always been one-step ahead when it came to economic development. If not in Indare, the complex would likely be built in Exportul. Why not push for construction of the complex in Indare so that they might benefit from this investment in terms of income increases, jobs created and incentives from the national government.

The Federation of Indigenous People of Bakul (FIPB): FIPB represents all indigenous communities of Bakul and is therefore the leading indigenous national representation. The indigenous groups are concerned about the increasing pressures from powerful timber companies and agricultural interests on their territory. They are afraid of losing their land if the trends continue. FIPB is calling for the state to finally recognize their ancestral land use rights by declaring their entire territory as official indigenous land. Together with the NGO, SOS Indigenous People of Bakul, and some support from the Unit of Tourism and Recreation, several communities in Indare have started to develop community tourism plans. Young people have already been trained as tour guides and have started to work with local travel agencies guiding tourists in adventure trips through the forests of the Tabakalues reserve and the Mighty Mountains. The Tabakalues and Hankules are afraid of losing this opportunity, which would lead to an increased migration of young people to the city and without them their cultural heritage would be lost.

The Province Agricultural Development Unit (PADU) of Indare is the representation of the Ministry of Agriculture (MoA) on a provincial level. Its main objectives are the improvement of agricultural and fisheries productivity as well as the creation of income and employment opportunities. As the agricultural sector generates 45 % of the national GDP it is of crucial importance for Bakul's economy. The director of PADU welcomes the development goals on promotion of biofuels and the enhancement of timber and cocoa exports. This increases the relevance of PADU in provincial decision-making and could enable the director to honour informal agreements that he has made with

the timber and cash crop lobbies. In informal meetings the director had come to an agreement with the biofuel investors on means of production. His biggest worry is finding a way to convince the smallholders to lease or sell their land to big agricultural concerns tied with the biofuel companies. The PADU is partially responsible for the conversion of forests to farmland, as it has actively promoted cocoa plantations in the province even though in most of these areas the soil is unsuitable for sustainable production. The main incentives for potential cocoa farmers are its favourable pricing system and the provision of fertilizer and scholarships for their children from the PADU. This has led to a massive change in land cover, pollution of streams and degradation of soils. The extension officers of PADU have tried to introduce agroforestry cultivation schemes into the region. However, there is a lack of knowledge and practical experience, which limits the implementation potential. There are several NGOs coordinating projects to improve land use planning systems and land security and are also promoting income-generating activities and helping farmers improve their marketing strategies.

Timber Companies: The timber companies are worried, since valuable timber resources in the forest production reserves are declining. The timber lobby is trying to persuade the government to grant them concessions for the remaining native forests. Most of the requested forest areas are within indigenous territories. The timber companies have been offering to compensate the indigenous community financially or by helping them in the leasing of new land but it is complicated, as large NGOs and other international institutions back the Federation of Indigenous People of Bakul (FIPB). They are generally suspicious of the interests of the timber lobby.

Unit for Environment: The opinion of the director usually does not seem to count when it comes to investment or development decisions. The director is well-informed about the relation between deforestation upstream, increasing precipitation and last month's floods. She is worried that if deforestation continues and the forest is replaced with oil palms, things will only worsen. Wondering how to enhance the mainstreaming of ecosystem services into development planning, the director is looking in many directions for solutions into how her unit's voice can be heard.

Unit of Tourism and Recreation: Tourism is becoming an important economic branch for Indare, especially ecological and community based tourism in and around protected areas. Together with tourism operators, the Unit has plans to design an ecotourism strategy for the province as it is seen as the most promising tourism segment for Indare. The director is afraid that they will have to abandon their plan to enhance ecotourism in the region if biofuel plantations expand in the province and deforestation continues. The tourism sector in general would be affected by the landscape changes and the foreseen environmental impacts, such as the decrease in water quality and species habitat. The communities are worried about their plans for promotion of community based tourism. With the current development patterns, this does not seem to be realistic anymore. Small tourism operators around Nelam-wetlands and in the mountain region fear that tourist numbers will decrease and that they will lose their main income source.

Water Enterprise Hanku: During the last decade, the water quality of the Milaku River dramatically decreased due to erosion and pollution. A technical assessment concluded that a new water treatment plant is needed. However, the water company is a semi-public enterprise and there is no funding available. The company is sliding into the red and water treatment costs are continuously increasing. No improvement of the situation is expected. With the construction of a new plant, water tariffs would need to go up significantly. An enhancement of the water quality before it actually reaches the plant by say, promoting reforestation and improving water resource management upstream, would improve operations and reduce costs.

Information and tips for conducting the exercise

1) Role-play

Before the role-play

Start by giving a short introduction to exercise 4, explaining especially the procedure of the stakeholder workshop. Divide the participants into groups (max. 5 people per stakeholder group). Depending on the time available, you can select 5-8 stakeholder groups to be invited to the meeting.

Suggested set-up (this can vary according to the types of stakeholder groups you would like to highlight):
Secretary of the Development Committee of the Provincial and Municipal Rural Development Unit (PMRDU) facilitates the meeting (should be done by trainer)

1. Governor
2. Biofuel representative
3. Timber Company
4. Water Enterprise Hanku
5. *Cocoa cooperative of smallholders* (COCOS) or Fishing cooperative (chose according to context of training)
6. Bakul Nature Conservation (Environmental NGO)
7. The *Federation of Indigenous People of Bakul* (FIPB)

Ask each group to choose a spokesperson, who will represent the group's interests in the stakeholder workshop. Motivate the participants to slip into their new role as much as possible and to be creative. Point out that each spokesperson will have no more than three minutes for his/her statement.

During the role-play

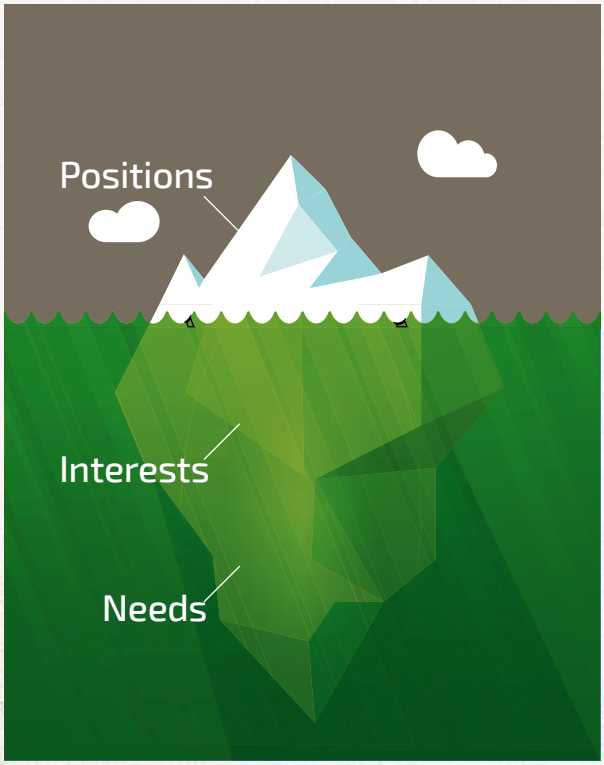
The facilitator starts by asking the representatives of each stakeholder group to make their statement one by one. The first spokesperson should be the representative of the Biofuel Company. The governor will give the welcoming and closing remarks. In order to add a bit of spice to the role-play, the governor can be late for the meeting and when arriving, hé d very likely disturb the discussion by expecting everyone to greet him/her or show him/her the protocolarian respect. Like in real life, decision-makers might favour certain stakeholder groups, or there might be unofficial alliances between the political and economic sectors due to similar interests. You, as moderator of the meeting, can play this part by, for example, giving the representative of the Biofuel Company more weight than other stakeholders. You can also act rudely and interrupt some of the other stakeholders, say the NGO or indigenous representative, when giving their opening statements, or favour powerful interest groups in your remarks.

After the role-play

1) Start the discussion and reflection by asking the "audience":

- What happened during the meeting?
- Which possible alliances could you observe/derive from the different statements?
- Where could you see possible conflicts among stakeholders regarding the access and use of ecosystem services?
- Do you feel that the Development Committee represents the interests of all groups?
- How was the meeting's moderation?
- Which stakeholders are missing?
- Why do you think that these stakeholders were not invited or did not participate?
- Based on the results of the discussion, who are priority stakeholders and how should the different actors be involved?

You can use the iceberg-model to illustrate the relations between positions, interests and needs, and how they play out in meetings of this sort (see PPT B). Ideally, draw the model on a flipchart to illustrate your explanations.



Source: *http://www.scotland.gov.uk/Publications/2010/03/30180908/14*

IN ADDITION (AND IF TIME ALLOWS), YOU CAN USE THE POWER/INTEREST GRID TO COMPLEMENT THE DISCUSSION.

2) Beyond stakeholder assessment:
Ask participants what important (positive or negative) incentives currently exist affecting the conditions of ecosystems and the flow of ecosystem services:

- policies, regulations and informal rules that affect directly or indirectly key ecosystem services
- key institutions and traditional authorities that influence ecosystem management

Describe the difference between formal and informal rules. Formal rules derive from policy decisions at different levels, and influence which services are accessible to whom and who is allowed to use them and how. Most of the time, informal rules arise from the local social interactions. They are mainly rooted in traditional and/or local values and beliefs and are sometimes a reaction to formal rules decided at a different political level (e.g. national or regional). Ask the participants to consider existing informal rules, especially those that contradict formal ones. Discuss in plenary why some regulations or formal rules are not effective and how informal rules work.

Below is a list of different types of incentives that may aid you in the final discussion. You may wish to present this list (or an abridged version thereof) during the discussion or while delivering the presentation (*see PPT "D"*).

TYPES OF INCENTIVES	POSITIVE INCENTIVES	NEGATIVE INCENTIVES
Policies	• Promotion of biofuels. • Forest and Wildlife Policy from 2005. • Promotion of cocoa plantation.	• Forest and Wildlife Policy from 2005 is not implemented well.
Market or fiscal oriented	• Job creation and income resulting from cash crops. • Licenses for timber extraction. • Incentives for cash crop production such as favourable cocoa pricing and provision of fertilizers and scholarships for children.	• Payment flows are not always secured.
Regulations	• Land use act 1982: crops belong to farmers but land belongs to landowners. • Traditional land rights in indigenous territories. • NSPA and CERs.	• Land tenure system does not comprise management of natural resources (they belong to the state). • Land titles are often not well clarified, especially concerning smallholders. • Lack of law enforcement and monitoring.
Informal rules	• Illegal logging. • Informal mechanisms for administration and utilisation of land (corruption). • Multiple leasing.	• Corruption in the forest administration. • Difficult registration process leads to informal mechanisms. • Land is unofficially leased to migrants.
Cooperation	• Conflicts. • Conservation efforts on timber operation. • Timber industry and biofuel investor.	• Conflicts among land- and smallholders, especially between farmers and indigenous people, due to squatters in indigenous territories. • Investors vs. smallholders, indigenous people, and NGOs. Timber industry vs. indigenous people. • Support through development cooperation. • Logging by timber industries and agricultural plantations in cleared up areas.
Information	• Absence of well-documented, demarcated and permanent boundaries (boundary conflicts). • National Biodiversity Strategy with minimal political impact. • Extension activities for agricultural practices.	• Promotion of income generation activities through NGOs.
Cultural patterns	• Indigenous forest dwelling cultures: dependence for their livelihoods and beliefs.	• Their beliefs and culture represent a good working social control mechanism, which ensures sound ecosystem management.

2.3.8 SESSION E: ECONOMIC VALUATION OF ECOSYSTEM SERVICES AND EXERCISE 5

Time consideration (min)	Input/ presentation	Exercises/case work	Discussion/ reflection	Total
	45+	45-90	**45**	120-150

Objectives

Presentation

1) Understand the rationale for (economic) valuation of ecosystem services.
2) Explore different purposes of valuation of ecosystem services.
3) Get an overview of methods.
4) Discuss critical issues.

Exercise

1) Explore the purpose and viability of economic valuation in Indare.
2) Discuss opportunities and risks of economic valuation and alternatives.

Overview & sequence

1) Introduction to economic valuation of ES (45 min and 15 min Q+A)
   According to the focus of training, you might want to spend more time on this input.
2) Exercise 5 (60-90 min)
   - Introduction to exercise. (5 min)
   - Reading and questions for clarification. (10 min)
   - Group work. (30-60 min)
   - Presentation in plenary, feedback and wrap-up. (30 min)

Material

- **PPT: E-Economic valuation**
- **PPT: B-Case work and exercises**
- **Participants materials**
  - **Applying economic valuation in Indare (exercise 5)**
  - **Overview of economic valuation methods**

Preparation

Alternative 1: Exercise 5 (Economic valuation in Indare)

- **Keep the same working groups as before (exercise 2+3); each group will work on one proposal for economic valuation.**
- **The results can be summarized on a flipchart paper or a short presentation.**

Alternative 2: Field trip

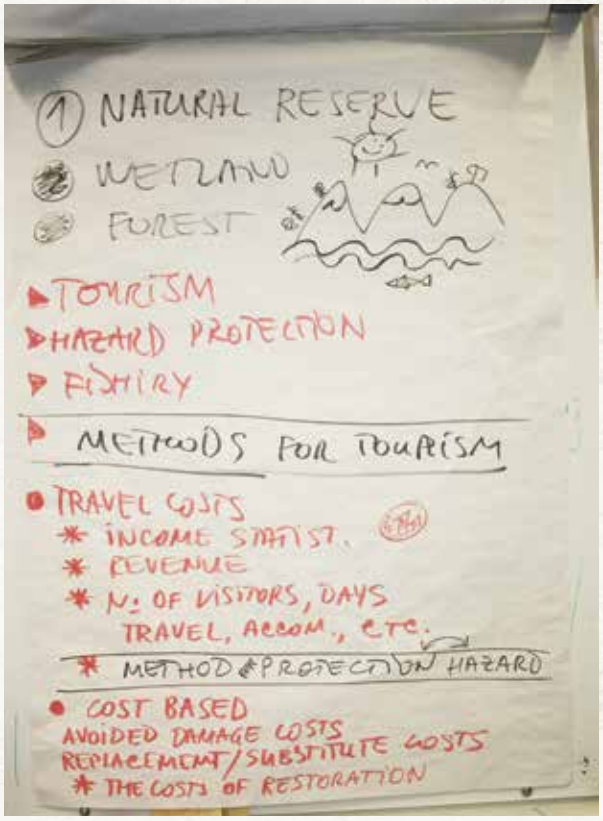
- **If time allows you can organise a field trip where participants practice with real economic valuation methods and challenges. If you do a filed trip, you can substitute it for exercise 5 and have participants work on actual valuation problems**
- **If you choose to do field trip, it is highly recommended to invite an expert on economic valuation who has practical experience and can coach participants on the tasks. See section on practical tips for running this session *(below)* for ideas on questions for field trip tasks.**

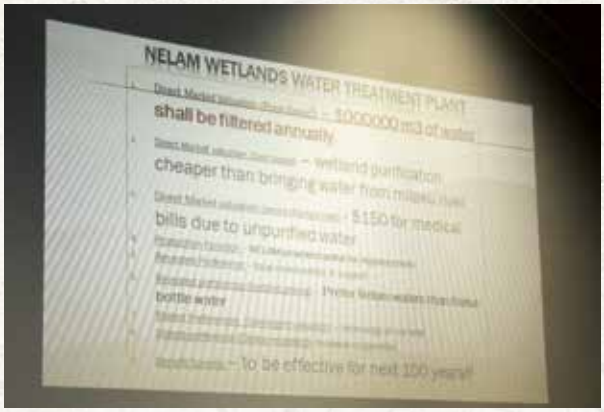
Presentation of results and feedback

Groups present results of analysis and receive feedback from trainers and guest experts.

Key messages	• It is not enough to know that ecosystems are valuable. We also need to know how valuable they are, to which groups, and how that value can be affected by different forms of management. • It is important to understand who carries the costs and who benefits from decisions affecting the provision and access to ecosystem services. Benefits are often shared unequally across different groups. Therefore, the perspective of all groups will give different answers to the question of value. • Price is only an indicator for the value and is only part of the total value. Many forms of value will not be considered when creating a price (e.g. intrinsic values or existence values). • Economic valuation is merely intended to be an aid to decision-making. The ultimate amount of payments, taxes, instalments or financing approach will always be the result of a political negotiation process that should ideally involve the affected stakeholders.

Examples of visualization of results


1 NATURAL RESERVE
WETLAND
FOREST
TOURISM
HAZARD PROTECTION
FISHERY
METHODS FOR TOURISM
TRAVEL COSTS
INCOME STATIST.
REVENUE
N. OF VISITORS, DAYS
TRAVEL, ACCOM., ETC.
METHOD & PROTECTION HAZARD
COST BASED
AVOIDED DAMAGE COSTS
REPLACEMENT/SUBSTITUTE COSTS
THE COSTS OF RESTORATION


NELAM WETLANDS WATER TREATMENT PLANT
shall be filtered annually
cheaper than bringing water from
bills due to unpurified water
bottle water

APPLYING ECONOMIC VALUATION IN INDARE (EXERCISE 5)

The initiatives of the development committee exploring the linkages between the development plan and ecosystem services have prompted interest by several groups. The newly launched campaign of the governoŕ s office about the natural treasures of Indare is reaching a very wide audience and appears to be attaining its goal of bringing nature to the forefront of discussions about development.

The Bakulesi University of Indare invited an expert in economic valuation to give a conference. As a result, several organizations have started to promote economic valuation as an important tool for decision-making. These include:

- The NGO Bakul Nature Conversation made an agreement with the corresponding Provincial Environmental Unit to run studies on the economic value of the Tabakalues reserve and the Nelam wetlands. The idea is to build arguments against further encroachment of these natural areas particularly in light of the expansion of palm oil plantations.

- A cocoa cooperative is looking for funding. They want to apply economic valuation in order to prove that agroforestry systems actually contribute to improving the provision of ecosystem services. They have asked the Province Agricultural Development Unit for support, but still have not gotten an answer.

- The water company plans to show how the treatment costs associated with removing sediments and pollution in the Milaku watershed can be offset if natural soil retention and water regulation improve upstream. Furthermore, they are looking for alternatives in water treatment techniques, as funding is currently inadequate for an entirely new treatment facility.

Your task:
Please discuss the following questions:

1) Which decision-makers do you intend to reach with the results? What type of information do you need to approach or influence the decision-maker (biophysical information, monetary figures, etc.)?
2) Which valuation methods would you suggest to use and what information/inputs would you need?
3) What are some of the expected results?
4) Why did you choose those methods? Describe their pros and cons?
5) Who should be involved in the economic valuation?
6) Can you identify possible risks associated with conducting economic valuation?
7) Can you think of other ways to highlight the value of ecosystems and ecosystem services?

Refer to the tables in the annex to identify suitable methods. You can also browse the ValuES methods navigator on-line (www.aboutvalues.net/method_navigator) to find information on suitable methods, as well as the pros and cons of different methods.

Information and tips for conducting the exercise
Economic valuation provides information on the monetary costs and benefits associated with particular impacts or effects of the development initiative and ecosystem services. A social-cultural valuation will provide information on different types of values of ecosystem services.

The main reasons for using valuation are:
- to provide additional evidence and arguments to convince decision-makers of the need to modify the development plan or to utilise policy instruments, and
- to generate any additional (quantified) data that may be needed for designing, planning or evaluating policy instruments, or to compare policy options.

It should, however, be emphasised that valuation is not required, or necessarily useful, in all cases. If you do decide that some kind of economic valuation exercise is needed, its purpose, target group and focus should be clearly elaborated.

- Useful resource: Increasing the Policy Impact of Ecosystem Service Assessments and Valuations - Insights from Practice (2016)

http://www.aboutvalues.net/data/about_values/increasing_impact_of_es_assessments.pdf

Field trip option
If you decide to substitute exercise 5 for a field trip, you are going to need a little extra logistical support but it is well worth it! Well in advance of the begin of the training course, speak with the local organizers to help you put this together, as you will require setting up appointments with stakeholders to interview, and arrange transport and maybe a snack for the teams while they are in the field. Doing a field trip will require participants to step out of the classroom setting and look into certain ecosystem-service related aspects, which are locally relevant. Make sure you feel conmfortable enough with economic valuation aspects to guide participants with this task. Ideally, you can invite an economic valuation expert to guide this part of the training. This person can deliver the theoretical input prior to the field trip and then help participants with the assigned tasks.

You need to think of three or four tasks for the valuation teams to solve. The teams can be the same as the ones for the other exercises or you can make new teams. Each task should consist of valuing one or more ecosystem services, which are relevant locally. This can be done on any setting. If you are conducting the training in a venue close to nature, you can easily find tasks for participants to complete. For instance, one of the tasks could be to look into the value of ecosystem services emanating from protected areas for certain economic activities (say, agriculture or tourism) or the value of watershed protection for downstream water supply. Doń t be discouraged to try this option if you are in an urban setting. Even there you can find interesting examples. For instance, one task could be to look into the value of a park as a recreation space or to look at the value of fresh water provision by asking people about their willingness to pay in order to improve water quality. Examples of tasks for field trip are shown *below.*

EXAMPLE FROM A FIELD TRIP IN COZUMEL, MEXICO

GROUP	QUESTION/TASK
1	What are the costs and benefits (monetary and non-monetary) of restoration of mangroves?
2	What is the overall value of fresh water provision and commercial fishing for the economic development of the island and what are the risks involved to the depletion of those ecosystem services?
3	What benefits do the reefs provide for different types of tourism and what are the main risks related to these activities for the reef?

EXAMPLE FROM A FIELD TRIP IN AJLOUN FOREST RESERVE, JORDAN

GROUP	QUESTION/TASK	INTERVIEWEES
1	What is the value of Ajloun Forest Reserve for tourism and what are some of the threats to this service/activity?	Representatives from Private Forest Camp
2	What is the overall value of fresh water provision for the economic development of Ajloun (City) and what are the risks involved in the depletion of this ecosystem service?	Representatives from Water Company, Ajloun
3	What are the (monetary and non-monetary) benefits of obtaining local materials for cosmetic and craft products and what are some of the risks involved?	Representatives from Soap Cooperative

EXAMPLE FROM A FIELD TRIP IN SHKRELI REGION, ALBANIA

GROUP	QUESTION/TASK	INTERVIEWEES
1	What are the contributions of medicinal plants and wine production to the local economy in Shkreli region? Are they enough to sustain local livelihoods? What are some of the benefits and risks involved?	**Wine and medicinal plant company**
2	What is the value of high quality potable water provision in Shkreli region? What are the risks involved in the depletion of this ecosystem service?	**River basin council, Koplik municipality**
3	What are the (monetary and non-monetary) costs and benefits of goat cheese production in Shkreli region?	**Owner of goat and cheese farm**
4	**What is the value of Shkreli region for tourism, what are the environmental costs of unsustainable tourism activities?**	**Koplik municipality, natural guides, Lake Shkodra Camping**

Each group should also get the instructions *below*.

Instructions for participants for field trip

The task for each group is composed of four steps:

1. Before the interview (in plenary): brainstorm on issues to find out possible valuation methods;
2. Before the interview: decide what valuation method(s) you will use;
3. Before the interview: formulate a list of questions or information to be collected during the interview;
4. Before the interview: decide which group members are responsible for asking different questions / collecting different information during the interview;
5. After the interview: prepare a 10 minute presentation covering which method you used and why you chose it, how you applied that method, and what your findings are

Exemplary results exercise 5 (Bakul version)

1) *The NGO Bakul Nature Conversation made an agreement with the corresponding management units to run studies on the economic value of the Tabakalues reserve and the Nelam-wetlands.*

This is about the total economic value of the protected area, considering and quantifying the benefits that people get from ecosystem services. Main benefits from Tabakalues Reserve are timber, NTFP, watershed services, carbon sequestration, tourism and habitat.

TABAKALUES RESERVE		
BENEFITS FROM ECOSYSTEM	VALUATION APPROACHES THAT CAN BE USED	TYPICALLY REQUIRED INFORMATION/ INPUTS
Timber and to some extend NTFP (medicinal plants, fruits, animals)	Market prices when available (timber, meat, fruits, medicinal plants). Transfer benefits (for some NTFP).	**Price of timber, medicinal plants, fruits and game, biomass (e.g. volume of possible timber in m3, kg of meat, plants, etc.), costs of operations, transactions costs, revenues flows (net present value).**
Tourism	Market prices WTP Travel Costs	**Willingness to pay from people** **Number of visitors.** **Entrance Fees (in case it exists).** **Cost of traveling there.**
Watershed Services	Market prices Damage costs Replacement costs Production function	**Water tariff, number of households provided with drinking water, operation costs for water catchment, treatment and distribution, opportunity costs of Activities (or land uses) of habitants living in the catchment areas, in case you have to avoid some of them.** **Avoided damage of downstream properties.** **Costs of replacing the hydrological services.**

TABAKALUES RESERVE		
BENEFITS FROM ECOSYSTEM	VALUATION APPROACHES THAT CAN BE USED	TYPICALLY REQUIRED INFORMATION/ INPUTS
Carbon sequestration and carbon storage	Market prices Production function Replacement Costs	CO_2 price (for ton CO_2) depending on voluntary carbon markets or regulated markets such as CDM. Biomass to calculate the CO_2 costs of afforestation, reforestation, reduced deforestation. Consider timber extraction if you are using the timber. Be aware to avoided double count.
Habitat	Replacement Cost Damage Cost Market prices Hedonic prices Production function	Costs for replacing the same habitat in a manmade form. Comparison of house prices in different habitats. Safe costs for avoiding possible damages such as avalanches or floods.
No use values (sacred places, aesthetic, bequest values)	MCA (Opportunity costs) WTP	Foregone economic benefits for keeping the place for religious activities. The price, people want to pay to maintain the place, in case that there is any artwork. The price of such artwork in the market.

NELAM WETLAND		
BENEFITS COMING FROM ECOSYSTEM	VALUATION APPROACHES THAT CAN BE USED	SOME ASPECTS TO BE CONSIDERED
Raw material (e.g. firewood and building materials)	Market prices Benefits transfer Production function Replacement cost	Prices of raw material, volume, biomass, changes in production (lost value), prices of alternatives or substitutes, transaction costs, income generated from economic activities (related jobs).
Food	Market prices Replacement costs Production function	Prices of related products (e.g. fish, shells, etc.), volume, people or household dependent on such products, possible lost value in catch, prices of alternatives and substitute, transaction costs.

NELAM WETLAND		
BENEFITS COMING FROM ECOSYSTEM	VALUATION APPROACHES THAT CAN BE USED	SOME ASPECTS TO BE CONSIDERED
Carbon storage and sequestration	Market prices Production function Damage cost	CO_2 price (for ton CO_2) depending on voluntary carbon markets or regulated markets such as CDM. Biomass (related to CO_2). Costs of afforestation, reforestation and reduced deforestation.
Natural Hazard (Shoreline protection)	Replacement cost Damage cost	Avoided costs of floods and storms (infrastructure, agriculture and other possible economic activities, costs of replacement for a man-made shoreline protection (such as dam construction).
Water regulation and filtration	Market prices Damage costs Replacement costs Production function	Costs for water treatment, costs of replacing the hydrological services through new infrastructure, costs of operation and transaction cost.
Tourism	WTP Travel costs	Willingness of people to pay. Number of visitors. Entrance Fees (in case it exists). Cost of traveling there.

2) *The cacao cooperative is looking for funding; they want to apply economic valuation in order to prove to the province the contribution of ecosystem services from the agroforestry system in economic terms.*

CACAO COOPERATIVE		
BENEFITS COMING FROM ECOLOGICAL AGROFORESTRY ECOSYSTEMS	VALUATION APPROACHES THAT CAN BE USED	SOME ASPECTS TO BE CONSIDERED
Cacao	Market prices Production function	Prices of cacao, yields, changes in production (lost value), transaction costs, income generated from economic activities (related jobs).
Raw material (medicinal plants and timber)	Market prices Production function Benefits transfers Replacement costs	Prices, volume, people or household dependent on such products, prices of alternatives and substitutes, transaction costs.
Carbon storage and sequestration	Market prices Production function Damage cost	CO_2 price (for ton CO_2) depending on type of carbon markets or regulated markets such as CDM. Biomass (related to CO_2).
Pollination	Changes Production function	Lost in yields (costs) because of lack of pollination, decrease of income generation.
Soil fertility	Replacement costs Production function	Costs for fertilizers, decrease in yields (productivity), costs of operation, transaction costs.
Tourism	WTP Travel costs	Willingness of people to pay. Number of visitors. Entrance Fees (in case it exists). Cost of traveling there.

3) The water company plans to make an economic valuation on the cost of sedimentation and pollution in the Milaku watershed, as they have significantly increasing operation costs. Furthermore, they are looking for alternatives in water treatment, as funding is currently inadequate for an entirely new treatment facility.

MILAKU WATERSHED		
BENEFITS COMING FROM ECOSYSTEM	VALUATION APPROACHES THAT CAN BE USED	SOME ASPECTS TO BE CONSIDERED
Water regulation (capture, storage and flows)	Replacement costs Damage costs	Costs of replacing the water (e.g. bringing the water from somewhere else, treating the distribution of it), avoided costs of damage to the downstream population (such as losses in production or health problems), costs of building a new treatment plant, operational and transaction costs).
Water for Irrigation	Market prices Production function Benefits transfers Replacement costs	Prices, changes in yield, people or households dependent on such products, prices of alternatives and substitutes, transaction costs, changes in income generation.
Water for Irrigation Carbon storage and sequestration	Market prices Production function Damage cost	CO_2 price (for ton CO_2) depending on type of carbon markets or regulated markets such as CDM. Biomass (related to CO_2).
Soil fertility	Replacement costs Production function	Costs for fertilizers, decrease in yields (productivity) costs of operation, transaction costs.
Drinking water	Replacement costs Cost of human capital Market prices	Costs of replacement (buying the water from somewhere else), avoided costs of health problems, and transaction costs).
Recreation	Stated preferences WTP Market prices Travel costs Hedonic prices	Number of visitors of the area, fees, income generated by activities that depend on tourisms, households that depend on such activities, differences in prices of the houses and land in the area, distance travelled by people to visit the place, number of jobs depending on such activities.

2.3.9 SESSION F: POLICY TOOLS FOR INTEGRATING ECOSYSTEM SERVICES AND EXERCISE 6

Time consideration (min)	Input/ presentation	Exercises/case work	Discussion/ reflection	Total
	30	75	**45**	150

Objectives	**Presentation** 1) Get an overview of policy instruments and measures that can help to capture ES costs and benefits. 2) Understand better decision-making processes and how to influence them. 3) Discuss criteria for choosing policy options. **Exercise** 1) Identify suitable policy options that will sustain the capacity of ecosystem services to meet the needs of the people most effectively. 2) Identify entry points to key decision-making processes.
Overview & sequence	1) Presentation: Policy tools and entry points (30 min +15 min Q+A) 2) Exercise 6 3) Introduction to exercise (5 min) 4) Reading and questions for clarification (10 min) 5) Group work (60 min) 6) Presentation in plenary, feedback and wrap-up (30 min)

Material	• **PPT: F-Policy tools**
	• **PPT: B-Case work and exercises**
	• **Participants materials**
	  • **Putting the pieces together (exercise 6)**
	  • **Summary policy tools (see table at the end of this section)**
	  • **Optional: Governoŕ s speech**

Preparation	• **Prepare flipchart with exercise (or use PPT slides).** • **Make sure you have at least one pinboard for each group and the results of the previous exercises visible.** • **Suggested group division:** • **Group1: Promotion of biofuels, Development of community tourism, Food security** • **Group 2: Construction of a new water treatment plant; Enhancement of timber export, Food security** • **Group 3: Improve quality and quantity of cocoa for export, Promotion of biofuels, Food security**

Presentation of results and feedback	Option 1: The trainers first listen to all presentations and then give feedback. Option 2: Presentation to representatives from Indare Development Committee. Before the exercise starts, identify 2-3 representatives of the Development Committee (e.g. Economy/Finance, Agriculture, Environment). Brief the representatives of the development committee to comment on the proposals from their institutional point of view after presentation of working group results. The trainer should assume the facilitation (technical secretary) and provide a general feedback at the end of the activity.
Key messages	• IES is a long-term endeavor, dealing with complexity and uncertainties. It requires adaptive management. • Look at the entire spectrum of policy instrument alternatives and strive to influence or change those, which are politically and financially feasible, socially legitimate, culturally acceptable and environmentally effective. • Capacity development is a constant along the entire process. • Planning for action needs a pragmatic approach: Use windows of opportunities, start with concrete actions and think strategically.

Examples of visualization of results

PUTTING THE PIECES TOGETHER (EXERCISE 6)

Based on the information generated during the assessment process, the consulting teams start preparing their final reports, including recommendations on how to revise the content of Indare's 5-Year Development Plan. The assessment process brought to light risks and opportunities related to ecosystem services that were not previously considered.

Your task:
Your consulting team should now develop a proposal on how to revise the development objectives and take into account risks and opportunities related with ecosystem services. Use the findings from the previous assessment stages to select policy options, instruments and concrete measures that will most effectively sustain the provision of ecosystem services to meet the socioeconomic needs of the province.

1) Look at the different risks and opportunities related with the provision and use of ecosystem services associated with the development objectives you worked on during exercise 2.
2) What needs to change? What are the related drivers (and underlying causes) that should be tackled?
3) Describe different policy options and reflect on how easy or difficult it might be to implement them. You can discuss about how to implement them by looking at factors such as relative ease of implementation, urgency, risk of losing an opportunity to effect change, available resources or other interesting criteria. Keep in mind that a mix of complementary measures might be required.
4) Identify entry points to key decision-making processes.
5) Identify key stakeholders to be involved in the activities and those with whom you would need to communicate to effect change.
6) Prepare your key messages and present your recommendations to the development committee.

You can recreate the matrix below to do your analysis. Try not to present everything on the matrix when you are in front of the development committee. Tease out the most important findings and prepare compelling messages. Remember, the members of the development committee usually have very little time.

DEVELOPMENT OBJECTIVE	RELATED RISKS AND OPPORTUNITIES	WHAT DO WE WANT TO CHANGE? DRIVERS TO TACKLE	NEW/DIFFERENT POLICY OPTION(S)	ENTRY POINTS INTO DECISION-MAKING	KEY STAKEHOLDERS AND STAKEHOLDER GROUPS

SUMMARY OF POLICY TOOLS

TYPE OF INSTRUMENT	EXAMPLES
Command and control instruments	Laws, regulations, restrictions, sanctions, prohibitions, permissions, standard-setting and enforcement, non-market-mechanisms
Planning instruments	Development plans, sector programs, spatial planning, national budgets, integrated ecosystem management plans, protected area planning, Strategic Environmental Assessments (SEA)
Economic and fiscal instruments	Introduction or exemption of fees, taxes and charges, permits, market-based incentives, subsidies, compensations, payments for ES, access and benefit-sharing, biodiversity offsets, performance bonds, revenue sharing
Informative measures	Environmental education, extension programs, green accounting, reports on the state of the environment
Cooperative / Voluntary measures	**Voluntary environmental agreements, international standards and protocols developed by NGOs and supranational government**

Source: Adapted from GTZ 2010; Pavan Sukhdev 2010

Information and tips for conducting the exercise

Steps 1 to 4 of the assessment process will have provided information about the linkages between the development plan and ecosystem services, and identified in detail both the main stakeholder groups who stand to gain or lose from changes in ecosystem service provision. They will also have described the main causes or drivers of ecosystem degradation, and the frameworks and incentives that govern how ecosystems are used and managed. This gives us a foundation for formulating a response to these linkages between ecosystem services and the development plan.

Step 5 involves identifying the main risks and opportunities that ecosystem services pose to the development initiative or plan, looking at policy options to address the incentives related to the drivers of change in ecosystems and ecosystem services, as well as identifying suitable entry-points into decision-making along the policy cycle. You can help trainees by highlighting the following aspects during discussions and group work.

- Analyse which instruments or policy changes could be developed and used to minimise, avoid or mitigate risks, and capture opportunities.
- Review the range of policy options, and choose those that will most effectively sustain the capacity of ecosystem services to meet people's needs.
- Wherever possible, choose measures and instruments that have already been proven to be effective in relation to ecosystem services and development impacts and the cultural setting in which they were applied. Make use of any windows of opportunity that are associated with public opinion, political and social conditions or market developments in the country or region in which you are working. This may also involve identifying new policy tools and instruments, to fill key gaps in existing frameworks. There may be needs and possibilities to, for example, develop novel ecosystem-oriented markets, incentives or governance structures. In many cases, however, making relatively small changes to existing policies (including overcoming existing distortions and failures) can leverage substantial improvements in the way in which markets, laws and institutions work in relation to ecosystem services.
- In almost all cases, however, a mix of policy instruments is required, which target different issues and stakeholder groups and work together to achieve a given set of objectives or desired outcomes.
- Last, but not least, pay particular attention to distributional and equity issues: take into account the needs of the poor and vulnerable groups when you identify and select potential policy options and instruments.

Explain that after having identified suitable policy options, the next step would be to **set up an implementation strategy and a working plan**. The working plan sets out the tasks, stakeholder involvement, responsibilities and actions, as well as the financial resources needed. A working plan also needs to be properly resourced and funded. The best-case scenario would be a complete integration into the development plan. The work plan should be developed in a participatory and collaborative manner.

The outcome for the fictitious case can be presented by reading out a newspaper article (see Bakul daily news, special edition, below). You can ask the participant, who played the role of the Governor during the stakeholder workshop in exercise 4 or the last team from Bakul TV, to read out the article.

Bakul daily news, special edition

Governor re-elected after remarkable campaign on ´treasures of naturé

Only 8 months after the big floods in Indare province, the Governor of Indare has been re-elected with around 67 % of votes, according to the latest polls. Official results are expected Monday. The victory did not come unexpectedly after a campaign dominated by environmental and social issues that moved the citizens of Indare; latest projections show widespread approval.

At 9.30pm, the governor arrived at the election party at the citý s town hall. His wife and his two children accompanied him. Elated with the outcome, he did not miss the opportunity to address the public with some moving words. After his speech, celebrations continued until the early morning hours.

According to internal sources the governor was congratulated by the federal president via telephone. It looks as if the so-called “Eco-Governor” and his new approach to enhance development without compromising natural capital is gaining attention at national level; a story that started only a couple of months ago with the biggest floods ever in the province. Will there be a happy ending in the long run? In the coming years, the government will have to prove that there is a lot more than just “green” promises.

EXEMPLARY RESULTS EXERCISE 6

DEVELOPMENT GOAL	NEW PROPOSAL/ REVISION YES/NO	REASONS
Construction of a bigger water purification plant for Hanku city	Yes: Development of an Integrated Regional Watershed Management Plan (IRWMP)	The water company is not able to finance the construction of a water treatment plant anyway. Therefore, external funds have to be found. However, the whole Milaku watershed is a source of water for range of domestic and municipal users, agriculture, forestry, fishing, recreation and tourism. Restoring the water quality of the whole watershed would benefit great part of Indare's population and not only users in Hanku. An IRWMP could support sustainable use and management of land and water resources of the watershed, and identify land uses that could adversely affect the future sustainability of the watershed, and propose strategies to address these land use issues.
Promotion of biofuels encouraging private sector participation (crop production and construction of biofuel plants)	Yes: Develop a Regional Sustainable Biofuel Plan to promote biofuels and maintain key ecosystem services	Use of biofuels can provide economic development, employment opportunities, greater energy security, opportunities to reduce GHG emissions compared to fossil fuels and so on. But a biofuel strategy should consider how to conserve carbon stocks, avoid negative impacts on biodiversity and ecosystems, improve soil health and minimize degradation, optimize water use and minimize contamination or depletion, contribute to the social and economic development of local, rural and indigenous people/ communities, not impair food security, not violate land rights, among others. Thus, policies and measures to develop a sustainable biofuel industry should be taken into account.
Development of community tourism (particularly in the Tabakalues reserve and the Nelam wetlands)	No	Development of community-based tourism provides a way to secure the livelihood of indigenous people and smallholders. At the same time, it helps maintaining key ecosystems that provide important services for other economic activities and the well-being of Indare's population.
Enhance export of timber	Yes: Promote sustainable forest management	The enhancement of timber export could promote illegal logging and increase the pressure of timber companies on the remaining forest areas, leading to a rapid degradation of forest ecosystems. Sustainable forest management practices could include the diversification in wood exports, the implementation of certification schemes in combination with the detection and monitoring of illegal activities in cooperation with global partnerships.
Improve the quality of cocoa	**Yes: Diversification and enhancement of cocoa exports (including certified products)**	**The export of cocoa is a main income source for smallholders in Indare. The diversification of cocoa products for export (not just beans, but chocolate, cocoa butter, cosmetics) could generate new income opportunities. Cocoa certification could help to improve the well-being of communities in the cocoa sector. For example, farmers could be trained on good agricultural practices to maintain the soil productivity of their lands**
Demarcation of indigenous territories	**New**	**Protection of indigenous territories to maintain key ecosystem services, to enhance protection against illegal activities, and to reduce migration of indigenous people to the cities.**

POLICY OPTION/ INSTRUMENTS/ MEASURES	APPLICATION IN INDARE/ BAKUL	STAKEHOLDER TO BE INVOLVED AND HOW
NATIONAL AND SUB-NATIONAL POLICIES		
Mainstream ES into Indare's development plan	Incorporate goals for maintaining areas of wetlands and forests.	Provincial and national government. Province might use leverage of issuing biofuel refinery license to persuade national government to support development of a sustainable biofuels plan, that incorporates investment in conserving wetlands and forests.
Establish and strengthen protected areas	Establish protected areas in key areas (coastal wetlands, watershed areas). Take a landscape approach that recognizes drivers of change outside the PA, and ensure financial sustainability. Consider that this option may be too expensive for the state agencies for land already owned by developers. Strengthen ineffective PAs.	Work with neighbouring provinces to encourage NGOs to purchase key areas in upper watershed for protection. Cooperation with Ministry of Environment and Ministry of Agriculture (responsible forest agency) for establishing protected areas in key forest tracts. Include local communities. Incorporate private sector for measures such as improving the conservation status of certain neglected zones in a forest reserve by replanting degraded areas with native species and/or removing invasive alien species.
Demarcation of indigenous territories	Final demarcation and protection of indigenous areas.	Continue negotiations between national government and FIPB. Work with NGOs and donor agencies to advance the demarcation process.
ECONOMIC AND FISCAL INCENTIVES		
Reduce pervers subsidies	**Both food and biofuel now subsidized. Limit biofuel subsidies to biofuel technology that is less damaging to ES and shift agricultural subsidies to promote sustainable land use forms to improve flood protection and water quality.**	**Set up a strategy and distribution scheme together with the Ministry of Agriculture, PADU, Ministry of Environment, and Ministry of Public Works.**
Use taxes or other public funds to pay for the maintenance of regulating and cultural services	**Allocate a percentage of province tax funds to go to landowners of forest, watershed areas and coastal wetlands. Need to decide who pays tax: those who benefit from clean water and flood protection or those whose actions degrade the service. Taxing biofuel sales or exports is one possibility.**	**Provincial government (PADU) and the water company will have to discuss the possibility of charging water use fee. Work with research institutes to define key areas and with landowners to agree on land use patterns, compensation, etc. Perhaps work with donor agencies and/or NGOs for technical support and upfront funding. Clarify who will monitor compliance. Informing public about use of funds to provide accountability.**
Set limits for managing pollutants such as nitrogen or phosphorus and establish trading systems	**For managing fertilizer and pesticide use or waste treatment. But: requires capacity to quantify and monitor and legislative framework for caps.**	**Ministry of Agriculture, PADU (more specifically: Extension Service) need to set up limits and assist farmers in the use of fertilizers and pesticides. Cooperate with NGOs to help farmers use chemicals in a right way. Work with research institutes to set reasonable limits. Donor agencies and NGOs can provide capacity building for the extension service.**

POLICY OPTION/ INSTRUMENTS/ MEASURES	APPLICATION IN INDARE/ BAKUL	STAKEHOLDER TO BE INVOLVED AND HOW
ECONOMIC AND FISCAL INCENTIVES		
Use procurement policies to focus demand on products and services that conserve ES	Check to see if program is available to certify sustainable agriculture and/or biofuel production. Province could promote use by adopting its own procurement policy.	If no program is available: look if there are similar programs in the region that could be adapted. Possible to work with NGOs and universities to take lead in developing national or regional approach. Work together with agricultural agencies to promote the certification scheme. Assist interested farmers (NGOs, donor agencies, extension service).
Address underlying causes of biodiversity loss	Work with communities to address their livelihood needs to support alternative sustainable livelihoods, such that unsustainable activities are stopped or reduced.	Work together with NGOs, private sector (CSR, Biodiversity Offsets), and donor agencies for setting up community support projects.
Support biodiversity offset schemes	Provide a way of maintaining overall services provided by forests and wetlands by requiring substitution by developers. For example, wetland banking schemes that allow developers who destroy wetlands to offset the environmental damage by paying to protect a sensitive wetland in another location.	Agreement between responsible government agencies, private companies, communities. Legal framework needed.
Explore opportunities for PES schemes	Identify important ES that have to be maintained (e.g., water provision), potential sellers (e.g., farmers, indigenous people), buyers (e.g., water company, biofuel company), and institutions for setting up agreement and monitoring system (companies, government institutions, donor agencies, NGOs).	See application
SECTOR POLICIES		
Include ES in SEAs	Inform understanding of risks to ES on which development proposals depend. Identify opportunities to reduce impacts and invest in regulating services. For example, conduct a SEA for agricultural sector's shift to biofuel cultivation.	Provincial and/or national government

POLICY OPTION/ INSTRUMENTS/ MEASURES	APPLICATION IN INDARE/ BAKUL	STAKEHOLDER TO BE INVOLVED AND HOW
SECTOR POLICIES		
Require ecosystem management best practices in granting permits or concessions	Use licensing of biofuel refinery to leverage best management practices in the watershed and to raise funds to help pay cost. Ensure that all commercial logging is regulated under designated forest concessions. Establish rules for concession allocation, local distribution of forest revenues, as well as requirements for submitting and gaining approval for forest management plans.	Agreement between Ministry of Agriculture, Ministry of Planning, biofuel and timber company, and local communities.
Use zoning or easements to keep land available for priority ES	Less expensive than purchasing wetlands. Could be used to keep riverbanks and key wetland areas out of crop production. Zoning for uses such as recreation. Need for legal framework in place and fair political process to apply zoning. Support sustainable economic initiatives for communities to compensate for lost income.	Work with responsible government agencies, neighbouring provinces, landowners and land users, and private companies to avoid exploitation in these areas. Zoning has to be conducted in a participatory process.
Use regulating ecosystem services such as natural hazard protection or water filtration instead of built structures	Usually provides co-benefits such as carbon storage and recreation. Look at amount and sources of funding for water treatment plant. Consider how cost/benefit analysis compares with investments in ecosystems to provide similar services.	Work with local utilities, land users, and responsible government agencies. Identify responsible institutions for negotiations and continued maintenance. Cooperation with research institutes, NGOs and donor agencies may be necessary.
Establish certification schemes that encourage best management practices	Provide those growing or harvesting timber, fish, or crops a way to learn about best management practices. Consumers need to be informed.	The Ministry of Agriculture could provide farms with organic certification system and the fishing companies and Fishery Cooperative with a certification for fish-friendly management practices. The Forest Stewardship Council could provide certification for sustainable timber harvesting practices. Work with research institutes to develop transparent, scientifically valid standards or work together with certification organizations.
Introduce education or extension programs on good practices	Provide knowledge to those maintaining ES and provide incentives for participation. For example, educate farmers to control pollution and erosion, in the use of fertilizers and pesticides.	Work with donor agencies and/or NGOs for capacity building within PADU (extension service). PADU will work with the farmers. NGOs can help disseminate information on techniques.

POLICY OPTION/ INSTRUMENTS/ MEASURES	APPLICATION IN INDARE/ BAKUL	STAKEHOLDER TO BE INVOLVED AND HOW
SECTOR POLICIES		
Develop and encourage use of products and methods that reduce dependence and impact on services	Reduce degradation of ES by avoiding harmful substances or using services more efficiently. Fund research on biofuel cellulosic technology to reduce competition of crops for fuel versus food. Combine with incentive or legal requirement to get widespread adoption of precision and no-till agricultural practices for food and biofuel crops, perhaps through watershed or national plan.	Provincial and national government: Ministry for Agriculture and PADU to agree on a scheme. Work with research institutes and NGOs to define best practices. Incorporate private companies for financing the fund.
GOVERNANCE		
Clarify or strengthen local community rights to use and manage ES	Ensure involvement of stakeholders who may depend on ES for their immediate livelihood and well-being. Establish Community Ecological Reserves (CER) and/or co-management arrangements for protected areas with interested communities.	Cooperation between responsible provincial agencies and representatives of the communities/ traditional authorities. Ensure that women and the poor are included. Use the support of NGOs for the establishment of CERs.
Develop and use private and public sector indicators for ES	Develop public indicators of wetland and forest conversion to provide information about the state of ES and to show where practices need to be changed. But funds are needed to develop and disseminate indicators, and monitoring.	Work with responsible province or national agencies to start using reports on state of ES. Set up indicators with help of research institutes. Encourage NGOs to use as basis for public education campaign.
Establish processes to work across levels of government, from local to national	Set up working group with other agencies. Collaborate with water agency to map wetlands and with agricultural agency to develop more efficient technologies for water, fertilizer and timber use.	Responsible national, provincial and municipal agencies
OTHERS		
Communication and public awareness campaign	Raise awareness and inform on the importance of healthy ecosystems for human-well-being.	Unit for Environment
Promote eco-tourism, campaign, special tariffs	Create incentives for national and international tourism, develop marketing strategy, create a “brand”.	Unit for Environment, Unit for Tourism and Recreation, Tourism operators
Promote regional products (NTFP, chocolate etc.)	For example, start with a market in Hanku, offer regional products and background information, involve private sector.	Province Agricultural Development Unit, cocoa cooperative, private sector, Federation of Indigenous People of Bakul National level

3.3.10 SESSION G: WRAP-UP OF IES APPROACH AND PLANNING FOR ACTION

Time consideration (min)	Input/ presentation	Exercises/case work	Discussion/ reflection	Total
	10	20	**15-20**	45-60
Objectives	Summarize key features of the IES approach. **Planning session:** 1) Reflect how the newly acquired knowledge and skills can be applied in the own work context. 2) Plan next steps.			
Overview & sequence	1) Wrap-up of IES approach 2) Planning for action (optional)			
Material	• **Pinboard with IES approach, pinboards, cards, pens**			
Preparation	• **The wrap-up can either be done in plenary or in small groups. In either case, it is recommended to prepare key messages in advance (e.g. on a flipchart).** • **If you want to plan further steps, prepare pinboards.**			
Key messages	• **IES helps to consider and integrate ecosystems and their services into the decision-making process.** • **IES highlights that there are many approaches to sustainable development and many different perspectives on ES.** • **The six-step approach elicits answers to the following questions:** **1. How does the development plan depend and impact upon ES?** **2. What risks and opportunities do ES pose to the development plan?** **3. Which policy measures can help avoid costs related with ecosystem degradation and capture ES-related benefits?** • **Communication and participation occur throughout the entire process.** • **The process is not necessarily a linear approach; in fact, it is more of a cyclical process in which previous steps are continuously revisited in an iterative way.** • **The IES approach is a structured and systematic guidance for addressing ecosystem services issues in the context of development planning.**			

Information and tips for conducting the exercise

Part 1: Summary of IES approach

- Option 1: Plenary discussion

Summarize the main issues and features of the stepwise approach in a plenary discussion. Use the following remarks and notions to guide the discussion.

IES is an approach, which helps to consider and integrate ecosystems and their services into the decision-making process. It also helps to highlight the fact that there are many approaches to sustainable development and many different perspectives on ES. There are three key questions to consider when using the six-step approach:

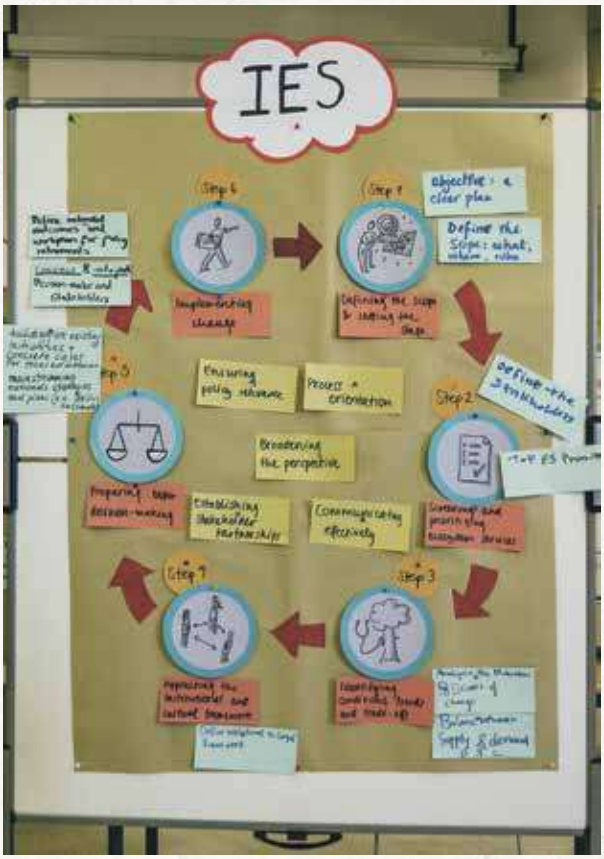
1) How does the development plan depend and impact upon ES?
2) What risks and opportunities do ES pose to the development plan?
3) Which policy measures can help avoid costs related with ecosystem degradation and capture ES-related benefits benefits?

- Highlight the importance of communication and participation during the entire process.
- The process is not necessarily a linear approach; in fact, it can be seen as a cyclical process in which previous steps are continuously revisited.
- Emphasize that it is not a recipe, but a structured and systematic guidance for addressing ecosystem services issues in the context of development planning.

In addition, you can ask participants to share their view, i.e. what seems to be most important for their working context, what possibly is still complicated with regard to implementation, and so on.

- Option 2: Working groups

Divide the participants into six small groups, one per step, and distribute the respective symbol and definition. Each group discusses approx. 5-10 minutes about what they consider important with regard to the respective step and summarizes two or three key issues. Place the six-step pinboard in front of the room and ask participants to pin the key issues they identified next to each step.



Participant pinning important points on pin-board and circular representation with key aspects pinned by participants.

Part 2: Planning for action (optional)

If you still have time and the group is interested, you can facilitate a planning exercise to help participants integrate the IES approach into their own activities or institutional objectives. You can form groups according to interests or institutional affiliations and ask them to think of activities related with their institutional mandates and ecosystem services. You can use the following simple matrix or a variation thereof (transfer it to one or several pinboards).

ACTIVITY (POSSIBLY DATE OR TIME FRAME)	WHEN WILL/CAN IT TAKE PLACE?	WHAT IS NEEDED TO CONDUCT THE ACTIVITY (RESOURCES)	RESOURCE/ CONTACT PERSON	WHO IS INTERESTED (TO CONTRIBUTE/PARTICIPATE/ RECEIVE INFORMATION)?

In a first round, participants pin cards with activities (related to IES) which might be of interest for the group. In a second round, participants revise the proposed activities and "register" by writing their names on cards for the activities they are interested in.

Another very useful tool is to let participants prioritize the activities by means of a voting mechanism. After the pinboard(s) is(are) completed, give each participant three to five sticky dots or tell them they are allowed a certain amount of votes by placing a tick mark on each actitvity. The number of votes each participant gets depends on group size. For larger groups, give fewer votes per participant (but not less than three) and for smaller groups allow for more votes (not more than five). Let them go over the activities and vote on the activities they are interested in. At the end, count the votes. The activities with the most votes are thus the most important for the group.

Example of visualization of next steps

Annex

EXEMPLARY SCHEDULES

Annex 1: Examples of agendas for workshops with different durations

Here you can find examples of agendas for courses with different durations.

AGENDA FOR 2-DAY COURSE

TIME	DAY 1	DAY 2
9:00	Opening and introduction	• Check-in and recap • Input lecture Governance
10:00	Ecosystem services concept and overview of 6-Step approach (guided discussion)	EXERCISE 4: Institutional and cultural context
10:30	Coffee-break	Coffee-break
11:00	EXERCISE 1: Getting familiar with Bakul	Methods and instruments to assess and valuate ES (lecture; skip EXERCISE 5)
12:00	EXERCISE 2: Where the story begins	
13:00	Lunch	Lunch
14:00	Presentation of group results	EXERCISE 6: group work
15:00	Introduction to assessment methods: Prioritizing ES, trends and conditions (lecture)	
15:30	Coffee-break	Coffee-break
16:00	EXERCISE 3: ES assessment, group work	Presentation of group work results
17:00	Presentation of group results (exercise 3)	Discussion and reflection on 6-Step approach
17:30	Wrap-up and end of day 1	Wrap-up and evaluation

AGENDA FOR 3-DAY COURSE

TIME	FRI, 22	SAT, 23	SUN, 24
9:00	**Opening and welcome**	**TV Bakul** *(Volunteers)*	**TV Bakul** *(Volunteers)*
9:30	**Participant introductions / Expectations**	**ES Assessment – Identifying conditions and trends of ES**	**Introduction to economic valuation methods**
10:00	**Introduction to the training** *"Objectives, methodology, agenda and committees"*	*Presentation, questions and answers*	*Presentation, questions and answers*
10:30	**Coffee break**	**Coffee break**	**Coffee break**
11:00	**Basic concepts: Biodiversity, ecosystem approach, ecosystem services, TEEB initiative and the IES approach** *Presentation, questions and answers*	**Exercise 3:** *"Carrying on with the assessment"* **Step 3** *Group work*	**Exercise 5:** *"Applying economic valuation in Indare"* **Step 5** *Group work*
11:30			
12:00		**Results presentation and discussion** *Plenary*	**Results presentation and discussion** *Plenary*
12:30	**Lunch**	**Lunch**	**Lunch**
14:00	**Exercise 1:** **"Getting familiar with Bakul"** **Step 1** *Plenary*	**Introduction to governance of bio-diversity and ES** *Presentation, questions and answers*	**Policy options and entry points** *Presentation, questions and answers*
14:30		**Exercise 4:** *"Appraising the institutional and cultural framework"* *Role-play*	**Exercise 6:** *"Putting the pieces together"* **Steps 5 + 6** *Group work*
15:00	**Exercise 2:** *"Where the story begins"* **Steps 1 + 2** *Group work*		
15:30	**Coffee break**	**Coffee break**	**Coffee break**
16:00	**Exercise 2 continued:** *Group Work*	**Exercise 2 continued: Group Work** **Exercise 4 continued:** *Role-play and plenary discussion*	**Results presentation and discussion** *Plenary*
16:30	**Results presentation and discussion** *Plenary*		**Evaluation, conclusions and closing remarks** *Plenary*
17:00 - 17:30	**Conclusions and closing remarks** **Plenary**	Conclusions and closing remarks Plenary	

AGENDA FOR 4 TO 5-DAY COURSE

TIME	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
9:00	**Opening and welcome**	**TV Bakul** *(Volunteers)*	**TV Bakul** *(Volunteers)*	**TV Bakul** *(Volunteers)*	**TV Bakul – special edition** *(Volunteers)*
9:30	**Participant introductions / Expectations**	**ES Assessment – Identifying conditions and trends of ES** *Presentation, Q&A*	**Introduction to economic valuation methods** *Presentation, Q&A*	**Field results presentations** *Plenary*	**Develop action plans cont d** *Regional teams*
10:00	**Introduction to the training** *"Objectives, methodology, agenda and committees"*	**Presentation on specific assessment method** *Expert presentation, Q&A*		**Policy options and entry points** *Presentation, Q&A*	
10:30	**Coffee break**	**Coffee break**	**Coffee break**	**Coffee break**	**Coffee break**
11:00 **11:30**	**Basic concepts: Biodiversity, ecosystem services, TEEB initiative and the IES approach** *Presentation, Q&A*	**Exercise 3:** *"Carrying on with the assessment"* **Step 3** *Group work*	**Orientation on field trip and preparation** *Plenary and group work*	**Exercise 6:** *"Putting the pieces together"* **Steps 5 + 6** **Group work**	**Submission and discussion of action plans** *Plenary*
12:00	Exercise 1: *"Getting familiar with Bakul"* Step 1 *Plenary*	Results presentation and discussion *Plenary*			
12:30	**Lunch**	**Lunch**	**Lunch**	**Lunch**	**Lunch**

TIME	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
14:00	**Exercise 1 continued** *Plenary*	**Introduction to governance of biodiversity and ES** *Presentation, Q&A*		**Results presentation and discussion** *Plenary*	**Workshop conclusions** *Plenary*
14:30	**Presentation on specific case example from the country** *Invited expert*			**Orientation on action-planning exercise** *Plenary*	
15:00		**Exercise 4:** *"Appraising the institutional and cultural frame-work"* *Role-play*	**Exercise 5: Field work** *Field group work*		**Evaluation and farewell** *Plenary*
15:30	**Coffee break**	**Coffee break**		**Coffee break**	**Coffee break**
16:00	**Exercise 2:** *"Where the story begins"* **Steps 1 + 2**	**Exercise 4 continued**		**Develop action plans** *Regional teams*	
16:30	*Group work*				
17:00 - 17:30	**Results presentation, discussion and closing remarks** *Plenary*	Conclusions and closing remarks *Plenary*	**Preparation of field result presentations** *Plenary, group-work*	**Conclusions and closing remarks** *Plenary*	

Annex 2: Information on Bakul

This is the information on Bakul, which participants should read for exercise 1.

Bakul
From Bykipedia, the free encyclopedia

Bakul, officially the Republic of Bakul (Bakulesi: Sathalanalat dschoik Bakul), is a representative democratic republic. The political history of the country has been turbulent. Since its independence from colonial powers in 1964, it has had numerous political turnovers.

Bakul is a developing country with a market-oriented economy. From the start, the economic development of Bakul has been strongly influenced by external markets. Historically, the country's economic performance has been tied to exports, which provide hard currency to finance imports and external debt payments. Periods of high economic growth have been realized due to commodity export booms such as sugar and timber. Although these exports have provided substantial revenue, self-sustained growth and a more egalitarian distribution of income have proven elusive. This development pattern, with inadequate export diversification, has left the economy vulnerable to sudden shocks.

Its capital city is Hanku, which was declared a World Heritage Site by UNESCO in the 1970s for having the best-preserved and least altered historic centre worldwide. The beautiful beach promenade of Hanku is especially renowned and hosts plenty of restaurants (Bakulesi and international cuisine), cafés and hotels. The cuisine in Bakul is excellent and has recently received international acclaim due to its diversity in natural ingredients and mix of ancient and modern culinary arts.

Demographics
Bakul is a multi-ethnic country formed by a combination of different groups over centuries.

- As of 2016, the total population is 15 million, with 55 % living in urban areas and 45 % in rural areas.
- The population growth rate is currently 1.9% per year and features a slow decline.
- 31.3% of Bakul's total population is classified as poor, including 9.8 %, which fall under the extreme poverty line (2016).
- Bakulesi is the main language of the country and coexists with several indigenous languages.
- The main indigenous groups include the Tabakalues and Hankules (Northern part of the country), and Bankas and Kulres (Southern part of the country).
- Urban areas are home to a growing middle class, as well as growing areas of extreme poverty, especially due to the influx of unskilled and semi-skilled rural immigrants.

Republic of Bakul

Capital: Hanku (3 Million)
Population: 15 Million (2010 estimate)
Total: Area 300.000 km²
Official Language: Bakulesi
Political parties:
Social Rights Party (SRP), rather conservative and ruling since the last elections
Power to the People (PTP), which is popular in the rural northern district.
Independence: 1964

Economy
Bakul is a developing country with a market-oriented economy. The IMF estimates for 2016 a per capita income at US$5,195. It has a medium Human Development Index score of 0.723 based on data from 2016. Historically, the country's economic performance has been tied to exports, which provide hard currency to finance imports and external debt payments. Although these exports have provided substantial revenue, self-sustained growth and a more egalitarian distribution of income have proven elusive.

The current administration is trying to increase social spending and improve social conditions through promotion of key cash crops such as palm oil and the development of new income sources such as tourism and textiles. However, a good proportion of Bakul's industry is oriented towards servicing domestic markets and since income per capita is low, it is difficult to achieve the necessary growth. In addition, levels of education and medical services still need improvements for the majority of the population.

- Agriculture, forestry and fisheries: Presently, the main export commodities are palm oil, tropical fruits, sugar, fish and shrimp, and, to a lesser degree, timber and cacao. Fluctuations in world market prices can have a substantial domestic impact. Small-scale fishing and subsistence agriculture remain the backbone of the economy for more than 45% of the population living in rural areas. Timber companies are having difficulties renewing licenses

since most of the remaining forests are either in remote areas, or within indigenous territories. Nevertheless, most of the benefits coming from ecosystems in terms of goods and services do not have a visible impact in national accounts.
- A large proportion of industrial activities is oriented towards servicing the domestic market, with exports reaching countries within the region. However, this might change soon as the Ministry of Transport plans to expand the existing Historic Harbour. The objective is to achieve a handling capacity of 60 million tons of cargo/year by 2025.
- Tourism is gaining importance as the nation's fastest growing industry in terms of revenue. It is mainly based on the country's archaeological monuments, ecotourism in the rainforest, adventure tourism in the Mighty Mountains and beach tourism. Along the coast, beach resorts are plentiful with a couple of new luxury resorts that have been recently built on the south-eastern coast. Another tourist hot spot is located just north of Hanku city: the Nelam wetlands. They are part of the Ramsar List of Wetlands of International Importance and a mecca for bird-watchers. British tourists particularly love this beautiful and varied landscape with its countless birds.

Governance and administration

Bakul is a representative democratic republic that gained independence in 1964. Due to the central government's weak enforcement of national laws and international treaties, there is a strong presence of NGOs and advocacy organisations.

Administratively, Bakul is divided into three provinces: Indare, Exportul and Belandu. The three provinces have considerable autonomy but limited taxation powers. Although each province manages its own funds, the national government provides most of the development budget. Ministries regulate and promote most sectors at both national and provincial levels. The most important ministries are the Office of the Prime Minister and the Ministries of Planning, Finance and Economy, Industry, Water Resources and the Ministry of Agriculture, which is also responsible for Fisheries. The government founded the Ministry of Environment in 2004. Unfortunately, resources allocated to this Ministry are insufficient and enforcement of environmental regulations is almost non-existent.

1. Indare province

Indare province is known for its lovely hillsides, the crystal-clear waters of the Coroné River, the Nelam-wetlands and its beautiful beaches. Following is a list of key features of the province.
- While the lowlandś natural vegetation is tropical evergreen forest, tropical mountain rainforests cover the eastern foothills of the Mighty Mountains. These forests are very rich in species and are considered biodiversity hotspots.
- Hanku city is located on the banks of the river Milaku, just south of the Nelam-wetlands. These are known internationally for their flora and fauna and are recognized as an Endemic Bird Area (EBA) with the largest number of restricted-range birds of any EBA in the continent. During the last decade, the water quality of the Milaku River dramatically decreased and the water company of Hanku city is planning to build a new water treatment plant.
- The economy of the province relies mainly on industrial and artisanal fisheries as well as agriculture. Descendants of smallholders from different indigenous groups dominate agricultural production. Farmer livelihoods are based on subsistence agriculture complemented with cash crops such as cacao and tropical fruits as well as timber.
- In recent years the tourism sector has been growing rapidly. Tourists love the provincé s beautiful beaches and national parks. However, tourism infrastructure is still poorly developed and many potential visitors are left without options to explore the wetlands.
- Nowadays, foreign investors and wealthy entrepreneurs from Moneila city in the south have been witnessed in this part of the country. According to some reliable sources, they are buying land from smallholders in order to use it for palm oil plantations.

2. Exportul province

The province of Exportul is the centre of the agribusiness industry; run by both local medium-scale farmers and foreign investors. Following is a list of key features of the province.
- In the last two centuries, timber extraction, the rubber economy and land conversion for banana and sugar cane plantations have changed the landscape in a radical way. Today, most of the original vegetation cover has been depleted for palm oil and other cash crops. In order to enhance development, the province has reformed land titling procedures to minimize the risk of conflict and increase investment. However, after years of intensive use, soil fertility is decreasing and there are water supply problems, especially because of longer dry periods.
- The main commercial centre of the region, Moneila city, has been growing rapidly and is now the eco-

nomic and financial heart of the country, attracting foreign and domestic capital geared towards agribusiness and luxury tourism resorts along the coast.

3. Belandu province

The highland province of Belandu is well-known for its excellent dairy products. It is characterized by subsistence agriculture with a strong indigenous group participation. The textile industry is becoming more important. The main city is Kalu. Following is a list of key features of the province.

- Farmers have been migrating to this area over time, clearing the forest for pastures and increasing the number of cattle. Presently there are approximately 3,000 farmer families with farm sizes varying from 10 to 50 hectares. Uncontrolled expansion of cattle farming has led to heavy problems with erosion and river contamination, in particular the Milaku River. The textile industry might be a cause of water pollution in this area as well.
- Forests still cover large parts of the region, but soon may be restricted to steep slopes and remote areas. The province hosts the water catchment areas of important rivers such as the Milaku and Coroné. In this area, highland vegetation can be found between the upper forest line and the permanent snow line. The Hankulen Community Ecological Reserve (HANCER) is situated in the northern part. This reserve is co-managed by the national service for protected areas and the local indigenous communities. HANCER is home to endemic species and the source and catchment area of the Coroné River, which crosses the northern part of the country and flows into the Nelam-wetlands.

Environment

Bakul is one of 17 megadiverse countries in the world and it has more biodiversity per square kilometre than that of any other nation. Total number of bird species in the mainland area amount to 1,600 (15% of the world's known bird species) including the endemic Bakulu bird (it was declared national bird by the government in 2001). In addition, Bakul is home to over 16,000 plant species, 106 endemic reptiles, 138 endemic amphibians and 6,000 butterfly species. The current protected areas system (14% of the countrý s area) includes six national parks, four communal reserves and three ecological reserves. Well-known areas include the Nelam-wetlands and Tabakalues reserve (Indare), the HANCER reserve (Belandu) and Reskul national park (Exportul).

A large number of landholders (especially small-scale landholders and indigenous communities) in Indare and Belandu provinces do not have legal land titles and enforcing property rights is haphazard, especially in remote areas. Insecure property rights (especially land use and tenure rights) often prevail resulting in violent land conflicts and expropriation procedures. At the same time these conflicts reduce the present value of forests and foster forest conversion into agricultural and pasture lands. Landowners clear the forest preventively in order to assert the productive use of land and in order to reduce expropriation risk. Squatters invade land plots, clear the forest and may afterwards gain official recognition with formal property titles. To avoid social unrest, the government has acknowledged indigenous territories in some parts of the country during the last decades. However, some of these territories overlap with national parks and conservation policies sometimes conflict with these groups' interests.

Land conversion, deforestation, and subsequent soil and water depletion are some of the main environmental problems the country faces. The national environmental authority, the Ministry of Environment, has established complex regulations for timber operations and some for palm oil plantations. Unfortunately, resources allocated to the Ministry are insufficient to address the problems and enforcement is weak. Overseas development assistance and international donations have financed important conservation efforts, particularly the strengthening of sustainable timber operations and the creation of the National Park System (NPS).

Climate

The great variety of Bakuĺ s climate zones is largely determined by altitude. In the mountain valleys, the weather is mild all year around. The rainforest areas of the lowlands are characterised by strong humidity. The coastal area has a tropical climate with a strong rainy season. Bakul's seasons are defined by how much rain falls during a particular period. The year can be split into two distinct periods, the dry season known to the residents as summer, and the rainy season, known locally as winter. The summer goes from December to April, and winter goes from May to November, which coincides with the cyclone season. During this time, it rains constantly and sometimes severely in some regions. Average rainfall in Bakul varies considerably, from 1,350 mm in Indare province to over 4,500 mm in the extreme south of Exportul province. Seasonal differences in rainfall are greatest

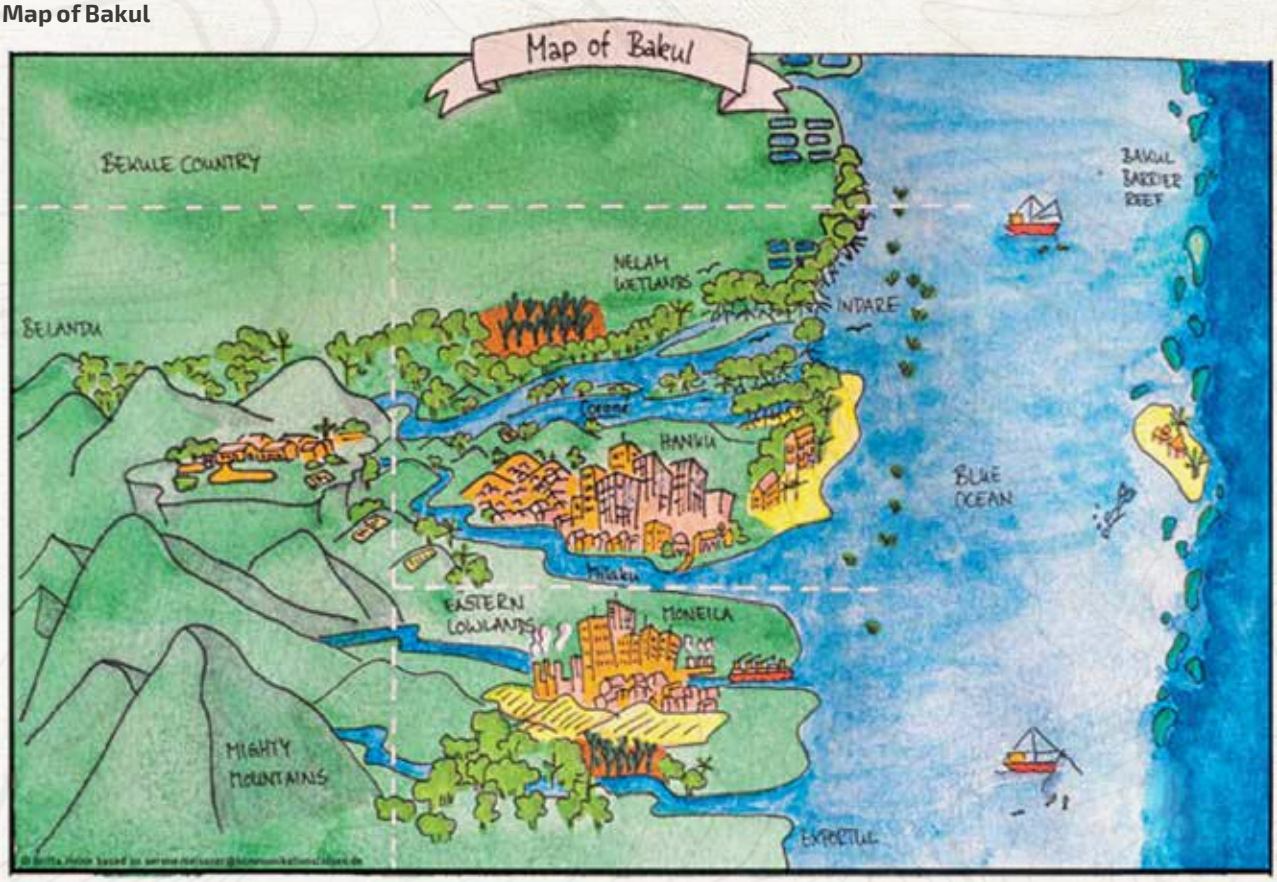
in the northern and central regions of the country, where, between January and April or May, there is less than 100 mm of rainfall per month. The dry season is shorter in the south, normally only lasting from February to March.

Temperatures vary according to elevation and proximity to the coast. Average temperatures in the coastal regions range from 24 °C in January to 27 °C in July. Temperatures are slightly higher inland. Overall, the seasons are characterized more by differences in humidity and rainfall than by temperature.

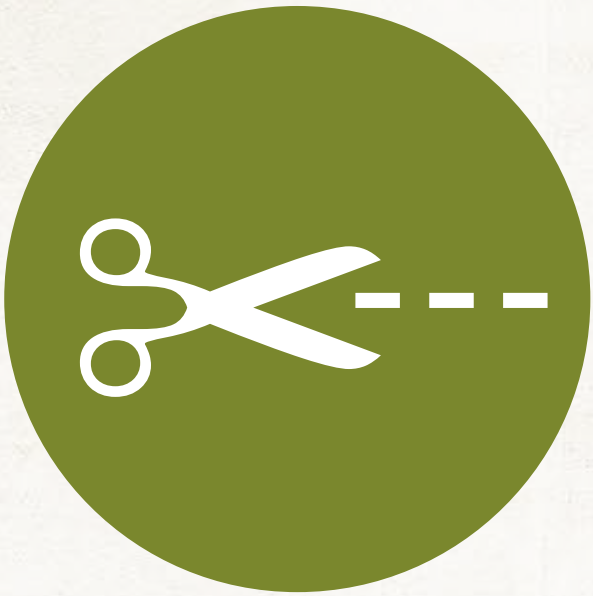
In a nutshell: Key features of Bakul

AREA	300,000 km² (a size similar to the Philippines, Ecuador or Ivory Coast)
POPULATION	15 Million; with 55 % living in urban and 45 % in rural areas
POPULATION GROWTH RATE	1.9% per year; mainly in urban areas due to continuing rural to urban migration and natural growth
GOVERNMENT	· Representative Democratic Republic · Three provinces: Indare, Exportul and Belandu with considerable autonomy, yet limited taxation powers
GDP PER CAPITA	US$ 5,195 (2016)
COMPOSITION OF ECONOMY	· Market-oriented economy with trend towards increased exports · Main export crops: palm oil, fish and shrimp, rubber, timber and, to a lesser degree, cacao and tropical fruits · Small-scale fishing and subsistence agriculture remain key pillars of the economy for more than 45% of the population living in coastal and rural areas · Tourism is gaining importance as the nations fastest growing industry in terms of revenue.
HUMAN DEVELOP-MENT INDEX	0.723 (2016)
PORTION OF POPULATION LIVING BELOW NATIONAL POVERTY LINE	31.3% of Bakul's total population is classified as poor, including 9.8% that is extremely poor.
GEOGRAPHY	Bakul is a tropical country with a great variety of ecosystems: • Mighty Mountains: a high-altitude belt (up to 2000 meters) running north to south along the west of the country. Large parts are still covered by forests with a mild climate all year around. • Low-lying lands to the east with a humid climate in the rainforest areas. • Coastline: Coroné Delta and the Nelam Wetlands (endemic bird area) with its sizeable mangrove forest in the north and palm oil plantations and agricultural lands destined for cash crops in the south as well as many beaches and islands and the world-famous Bakul barrier reef including the Bakul Barrier Reef Protected Area.
BIODIVERSITY	• The variations in elevation and climate lead to a wide diversity of ecosystems, each with different vegetation types and species. • Bakul is one of 17 megadiverse countries in the world and it has more biodiversity per square kilometre than that of any other nation. • The current protected areas system (14 % of the countrý s area) includes six national parks, four communal reserves and three ecological reserves, among others. Well-known areas include the Nelam-wetlands and Tabakalues reserve (Indare), the HANCER reserve (Belandu) and Reskul national park (Exportul).

Map of Bakul


Map of Bakul
BEKULE COUNTRY
BAKUL BARRIER REEF
NELAM WETLANDS
INDARE
BELANDA
HANOLA
BLUE OCEAN
EASTERN LOWLANDS
MONEICA
MIGHTY MOUNTAINS

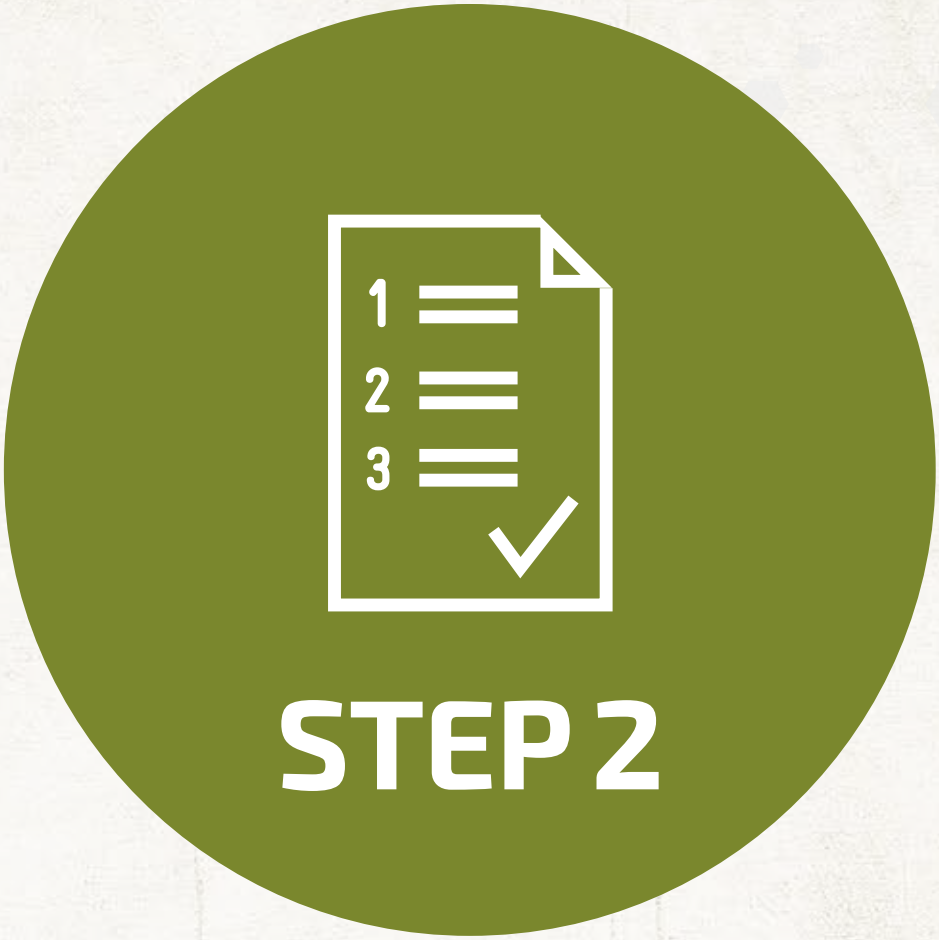
You can print and cut out the symbols and explanations for each one of the steps. You can then create cards with the symbols on one side and paste the explanation on the back of the symbol for the last session (Session E).



STEP 1

STEP 1 (IES Approach). Defining the scope

Step 1 involves undertaking the groundwork that is required to get the IES process started. The main tasks are: defining the objective(s), outlining the scope of work and identifying main stakeholders to be involved. At the end of Step 1, the design and next steps in the IES process should be defined, including the division of tasks and responsibilities. The availability of the necessary human and financial resources and other inputs should also be clarified as far as possible.



STEP 2 (IES Approach).
Screening and prioritizing ecosystem services

Step 2 helps prioritize the most relevant ecosystem services that are related with the development plan. At the end of this step, priority ecosystem services will have been identified. The main task is to screen the development plan so as to identify risks and opportunities related with the impacts and dependence of different development activities on ecosystem services and the key beneficiaries or affected stakeholders.

STEP 3 (IES Approach). Identifying ecosystem services conditions, trends and trade-offs

Step 3 looks at the cause-and-effect relationships that operate between ecosystem services and the development plan. The status and main trends in the supply and demand for ecosystem services are analysed. Drivers of ecosystem change and key stakeholders are also identified. A particular concern is to identify where there may be synergies and trade-offs between the different groups, goals or services.

STEP 4

STEP 4 (IES Approach).
Appraising the institutional and cultural framework

Step 4 complements the information that has been gathered in Step 3. It appraises institutional, policy, legal and cultural characteristics, and identifies the resulting incentive structures in relation to ecosystem services and the development plan. These factors mediate and influence how people manage, use and impact on ecosystems and their services, and may act as drivers of either positive or negative ecosystem change.

STEP 5

STEP 5 (IES Approach).
Preparing better decision making

Step 5 summarises and analyses the information that has been gathered in the previous steps. Based on this information, risks and opportunities for the development plan are investigated. It suggests policy options, which can serve to maintain or increase the flow of ecosystem services, and identifies suitable entry-points for guiding or influencing decision-making.

STEP 6 (IES Approach). Implementing change

Step 6 involves developing a strategy to operationalise the policy recommendations generated in step 5. It involves preparing a work plan, as well as a stakeholder engagement and communication strategy for the implementation of concrete measures to integrate ecosystem services into the development plan.

NOTES

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