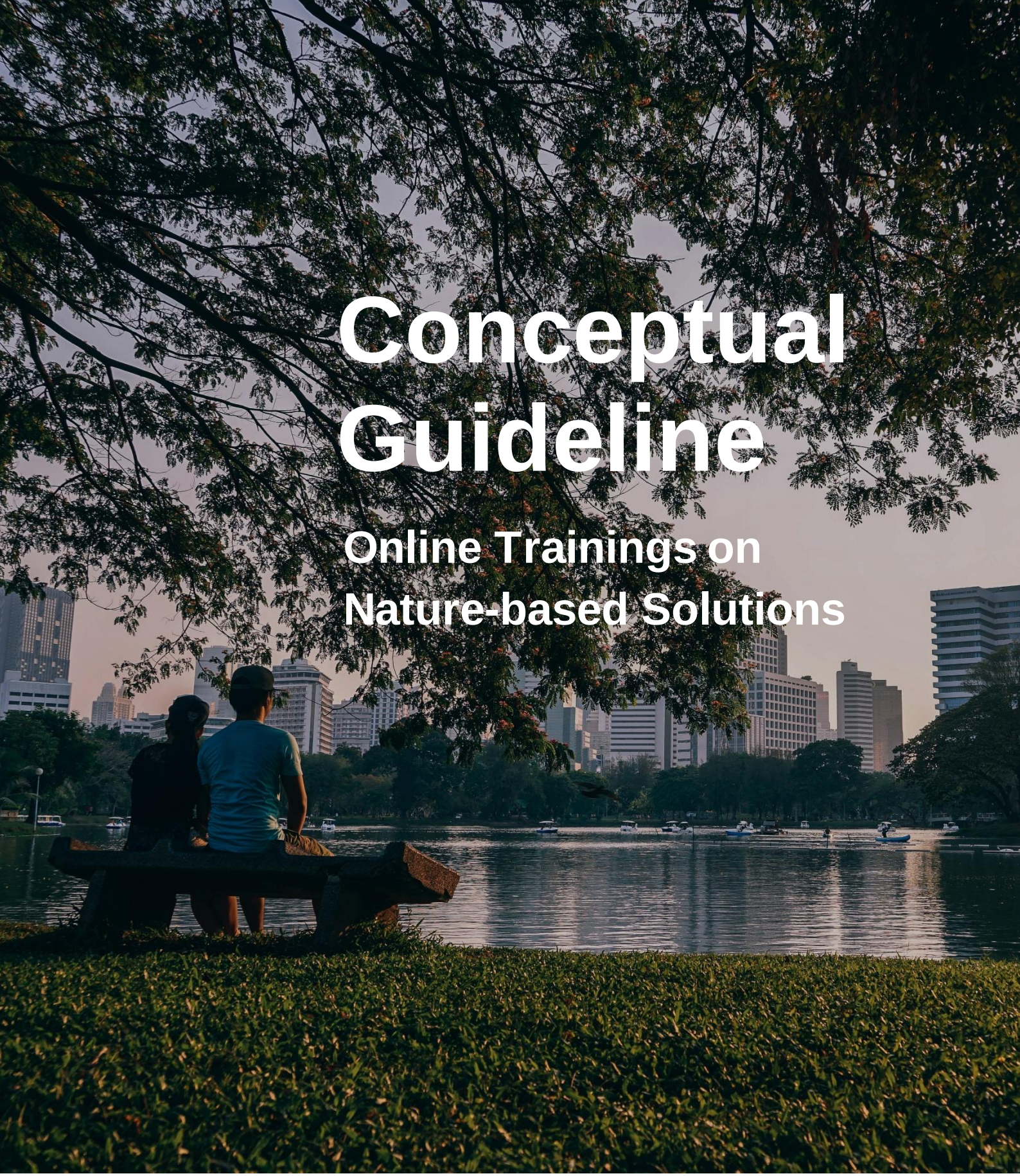

Conceptual Guideline

Online Trainings on Nature-based Solutions

german cooperation
DEUTSCHE ZUSAMMENARBEIT

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On behalf of
Federal Ministry for Economic Cooperation and Development
Berlin and Bonn

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Introduction and overall objectives of the guideline

The fifteenth Conference of the Parties (COP) of the Convention on Biological Diversity (CBD) will most probably adopt a new global biodiversity framework (GBF). So-called Nature-based Solutions (NbS) could play an important role in the successful implementation of the post-2020 global biodiversity framework.

In recent years, NbS have received considerable attention both at international level and in development cooperation. Increasingly, policy makers, sector planners and infrastructure builders are aware of the value of intact ecosystems and the services they maintain for human wellbeing. More and more, authorities acknowledge the potential of NbS to manage multiple actors, fulfill commitments to international frameworks such as the Nationally Determined Contributions (NDCs) and Aichi Targets and to combine aspects of adaptation, mitigation, and disaster risk reduction with urban development.

However, the potential of NbS is far from being exploited. For example, only seven out of the 25 major economies invest in NbS in their post-Covid recovery plans.[1] How can authorities efficiently address conservation management and other societal challenges, especially in times of increasing uncertainty and growing impacts of climate change?

This NbS training does not only provide an overview of the NbS concept and showcase good practice examples, it also aims at facilitating networking among the participants. The corner stone of the training are good practice cases sourced from the participants. The cases allow to shed light on how NbS have been applied so far in the participants' working context as well as help identify common challenges and opportunities to further scale up NbS implementation.

This conceptual guideline provides insights into designing an online training format applicable in various settings and suitable for participants with different professional backgrounds. The outlined modules and methods can also easily be translated into an offline format. The guideline proposes to split the workshop content into four half day training sessions, but the training structure and time allocation can be adapted as needed.

The training has the following objectives:

- Introduce the NbS concept and its role at the international level
- Introduce key aspects linked to successful implementation of NbS: governance, mainstreaming, finance and monitoring
- Discuss good practice NbS examples in relation to governance, mainstreaming, finance and monitoring
- Identify common opportunities and challenges across cases or a region
- Develop entry points to further scale up NbS implementation

[1] https://www.vivideconomics.com/wp-content/uploads/2021/01/201214-GSI-report_December-release.pdf

To achieve these objectives, the training covers eleven modules:

- Introduction to NbS
- Group work case studies
- NbS positions
- Mainstreaming NbS
- Governing NbS
- Financing NbS
- Monitoring NbS
- Communicating NbS
- Examples for NbS
- Conclusion and reflections
- Open interactive exchange

Target groups

The training can be tailored to many different settings and can hence address a broad range of target groups:

- Members of partner organizations
- Private and public stakeholders within biodiversity relevant sectors (e.g. water, agricultural, tourism or financial sector)
- Development cooperation professionals worldwide
- Representatives of civil society and international cooperative initiatives

Depending on the context of the training, further refinements of the target group may be necessary. Some trainings may focus specifically on a certain national or regional context or a sector. In that case, the target group needs to be further narrowed down. This will become especially relevant for module 4, which aims at examining entry points for action and promote networking amongst the participants.

Scope of the conceptual guideline

This conceptual guideline aims to support practitioners working in the German development cooperation context or elsewhere in providing trainings on NbS in their specific contexts and for their respective target groups. The guideline focuses on online training. The modules can, however, be easily adapted to in-person trainings. The guideline structures possible training contents and provides methodological options, enabling practitioners to design NbS trainings tailored to their target group's needs and context.

Specifically, the guideline provides:

- A methods chapter which briefly summarizes the different types of training methods presented throughout the guideline
- Eleven modules which treat different aspects of NbS
- Optional methods (different group exercises and inputs), including brief descriptions to facilitate the customization of the training

As the training has to be tailored to the specific target group and context, the guideline does not provide detailed descriptions of contents or training materials such as

handouts, PowerPoint presentations or detailed descriptions of how to moderate and implement group exercises.

All interested parties within or outside German development cooperation are warmly invited to use this guideline as an inspiration to implement similar trainings by themselves. GIZ is ready to support further trainings with its expertise. In case of interest please contact the GIZ sector programme Conservation of Biodiversity on Land.[2]

How to use this guideline

The guideline consists of eleven modules, building on one another. However, some modules can also be realised individually for trainings with a specific focus (e.g. a training could be designed that focuses solely on the aspect of mainstreaming NbS). Each module entails four building blocks: learning objectives, guiding questions, contents, and methods. The information outlined in the content section of each module serves as a narrative for the module. However, this information may not be relevant to all contexts. Training organizers are invited to tailor the contents of each module to their specific needs. Contents of the training will also depend on the speakers invited to provide inputs. The organizers can choose from a range of methods within each module to transmit the module's contents.

[2] https://www.giz.de/en/worldwide/76636.html

Methods used in the online training

This chapter begins with introducing helpful guiding principles and online tools for the training. It then presents some important considerations for choosing suitable case studies, as they present the core of the training. Afterwards, three key building blocks used throughout the training are introduced: inputs, group works and plenary or panel discussions. These can be adapted to offline trainings, although this guide focuses on online formats. The methods used are meant to be tailored by the moderators to the needs and preferences of the participants. It is furthermore recommended to conduct the training in a setting that accommodates the guiding principles outlined below.

Guiding principles

In order to facilitate a productive and open-minded atmosphere and invite participation and collaboration between participants, it is recommended to apply the following principles:

- Bring together a diverse group of stakeholders with different backgrounds and roles
- Provide an inspiring mix of technical inputs and allow time for reflection
- Draw on/activate the resources of the training participants (inputs, experiences, examples) wherever possible
- Foster an open exchange of ideas and experiences across hierarchies, sectors and levels
- Aim at creating a deep understanding of the subject by strengthening the recognition of relevant patterns and providing an overview of suitable tools
- Develop joint visions and initiate the formation of co-creative networks

Tools for online formats

Several tools exist that substitute physical white boards, paper and pencil and thus facilitate the documentation, presentation and organization of information in an online context. Some tools also enable online co-production and collaboration. It is recommended to make use of these tools to make the seminar more interactive and to support knowledge exchange. However, it is important to keep in mind that every new tool introduced during the training may also be new for participants and brings its own challenges in terms of user-friendliness and accessibility. Tools should therefore be carefully chosen and in the best case introduced to the participants before the training, e.g. in form of a technical check. We recommend not to use more than three to four different tools.

Most video conference tools such as Adobe Connect, Webex, Zoom or MS Teams offer a break-out room option enabling group work. Moderators and technical hosts can make use of different enhanced options, such as enabling free break-out room choice, sending messages to the groups, or visiting the different break-out rooms to check on the group work. A second default option in most video conference tools is screen sharing. By screen sharing, moderators, input or case givers can share visual inputs, such as a PowerPoint presentation, a graph, the results of a survey, an online whiteboard, a website etc. It is important that moderators, technical hosts and potentially participants are familiar with the existing options in advance so that they can handle them with confidence.

Online survey tools can be employed in a variety of training situations, ranging from quick and interactive surveys for introduction rounds (e.g. Mentimeter[3]) to longer and more complex surveys useful to determine group work preferences or to make an online evaluation (e.g. LimeSurvey[4]).

Online whiteboards such as Miro[5] or Mural[6] enable participants to visually collaborate on a given task, for example during group works. Participants can add text, forms, pictures or other elements to templates prepared beforehand or create new content. Next to group works, online whiteboards can also be creatively used for different energizers, individual or group brainstorming, homework documentation or a daily "check-in" regarding expectations and well-being of participants.

Platforms such as Wonder[7] try to provide a flexible, user-determined space that resembles the famous offline "coffee break conversations" or a "bar". Users can freely walk around a virtual space, join different conversation rounds and create new ones. Since online formats are very limited in terms of informal exchange and networking, such tools can be valuable for digital coffee breaks or networking events. Alternatively, and in order to avoid extra tools, the plenary or break out rooms can be left open in the breaks for chatting and networking.

The role of case studies

Case studies are a corner stone of the suggested training format, especially of the group works, and are ideally sourced from the participants. They can be chosen according to different criteria and presented in different ways.

Case studies can be extensively presented and discussed in plenary. An alternative is to do short case study pitches and allow participants to choose a case to work on in collaboration with the case giver (see Module 1 – Methods for the introduction to NbS). With the first option (plenary discussion), moderators and case givers have the chance to give more extensive general input and to point out key elements uniting the different examples. At the same time, the input is less interactive for participants and usually stays at a more superficial level. With the second option (participants choose a case for deep-dive), participants usually focus on only one or two specific examples of NbS,

[3] https://www.mentimeter.com/

[4] https://www.limesurvey.org/de/

[5] www.miro.com

[6] https://www.mural.co

[7] https://www.wonder.me/

but go more into detail. It is a more interactive format and enables participants from different contexts to choose an example related to their own working context, e.g. agriculture, marine conservation or coastal protection.

The training can encompass a mix of different case studies: One option is NbS projects that are already completed, maybe even evaluated, or at least in an advanced state. The second option is to include NbS projects that treat the beginning of the planning or implementation phase. The training can then be used for peer-learning and advice. The third option is to include projects for which it is unclear whether they constitute an example of NbS. Participants can then practice to apply the NbS concept to the case and discuss why (or why not) it is an example of NbS (and, eventually, what would make it one). In this case, it is important that moderators offer guidance and draw clear conclusions in the end about the nature of the discussed example so that participants are not confused.

Inputs

Inputs are beneficial to convey complex contents and transfer knowledge in a short amount of time and can provide a structured written or visual overview of a certain topic. An often-used format is a presentation given by an expert on a specific topic. Inputs are useful to introduce the audience to a larger narrative, a theory or compilation of key facts and figures. However, input formats are often not the most suitable to stimulate creativity, spark new ideas among participants or encourage co-creation approaches. Other training elements should be used before or after inputs to allow for creative and collaborative work. Inputs in the forms of presentations should not be too long to keep participants engaged.

In an online format, the attention span of participants is especially short. Moderators and presenters should take this into account. Some kind of visual presentation tool, for example PowerPoint, is indispensable in online contexts. However, presentation slides should not be too overloaded with information and the general pace of the presentation should allow people with minor connection problems to keep up. It is advisable to offer a wider range of media inputs in order to catch people´s attention, such as short videos or graphs. Considering the conflict between sometimes rather complex topics and lack of time and attention in online trainings, it might be an option to send some kind of introductory material (e.g. a website or a short video) to the participants in advance or as homework.

Group works

Group works involve groups of people collaboratively working on assignments or projects. Groups can vary from pairs to larger groups of people. They are beneficial to co-create ideas and solutions and to critically reflect on inputs provided before. Group work is less suitable for situations in which individuals require specific knowledge that can’t be obtained through group work formats.

As for inputs, the online format presents a particular challenge for group works. Although many online conference tools offer a break-out room option and online whiteboards allow for group collaboration, group work in the online context often suffers from a lack of personal interaction. Due to weak connections, participants might switch

their camera of. It is more difficult to reach out to quieter people in the group and integrate them in the work process. Some might even be incentivized to lean back or work on their to-do list. Experience shows that online self-organization processes regarding the kick-start of the discussion, documentation, reporting back to the plenary and time management are often slower than in offline settings. In addition, the allocated time is usually short. Online group work instructions therefore have to be developed with care and be clear and simple. If necessary, group works can be moderated by the training moderators, case givers or other suitable participants to compensate for the listed weaknesses of online formats. It is also advisable to allocate some time for individual reflection and brainstorming to lay the foundation for group discussions. An option would be to ask participants to prepare some key words to be presented to the group, either orally, by posting them in the chat or by using online whiteboards.

Panel and plenary discussions

Panel discussions are great to integrate the perspectives of different experts, shed light on controverse topics and allow for questions from the participants. They are relatively easy to be implemented in an online context. Panels usually start with panellists giving a short input. Afterwards, participants raise their hand or pose a question in the chat which is then picked up by the moderator of the session and discussed by the panellists. If wished so, moderators can first collect and then select questions asked to ensure a balance regarding for example gender or regions. In order to stimulate more active participation, participants can be given some time to individually think of questions for the experts, optionally as homework. Alternatively, questions for the expert panel can be the result of a group work preceding the discussion.

Plenary discussions among participants are important to bring together the results of group works. They also enable moderators to guide participants through the training and highlight connections between different training parts. They can also be used to openly discuss a topic with high relevance to the entire group of participants. In this context, it is important that moderators cluster and summarize questions and statements from the participants, link them to specific inputs and put them in the broader training context. In online formats, it is always tempting for participants to write a quick answer or a thought in the chat rather than talk to the group. Moderation can decide whether they allow for parallel chat discussions or not. In order to avoid diverging and decoupled discussions in plenary and in the chat, which can distract participants, the chat should be closely observed and important aspects should be picked up by the moderators.

Module 0 | Welcome and Getting to Know Each Other

Learning Objectives

After completing this module participants have:

- understood the overall approach and objectives of the training
- introduced themselves and gotten to know the other participants and moderators

Guiding Questions

The guiding questions for this module are:

- How is the training structured?
- What are the training objectives?
- Who are the other participants (country, work background, experience)?
- What are participants' expectations?

Content

Introduction by the moderator and words of welcome

At the beginning of the training, moderators are invited to introduce themselves and inform participants about the objectives and structure of the seminar as well as the "housekeeping rules".

A list of relevant rules for housekeeping is provided below which can be further adapted. It is also suggested to give participants a chance to add rules that they perceive relevant.

- Please always keep your microphone muted and turn it back on when you speak
- To develop and keep up an interactive environment, please keep your camera on, if possible. Please do not use animated virtual backgrounds
- Please pose technical questions to *responsible person*
- We would like to encourage an open dialogue with a confidential atmosphere

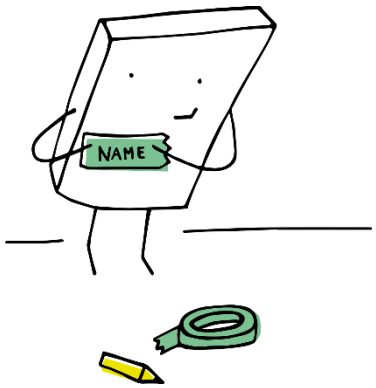
Time required: 10-15 minutes

Methods

As an introductory module, Module 0 focuses on introducing participants and moderators as well as the agenda and training objectives. It is assumed that not all elements of Module 0 require specific explanation regarding the methods they are based on. In the following, only those elements that use more elaborate methods are explained briefly.

Overview of methods for getting to know each other (focus online)

Many traditional introduction methods are available both in offline and online formats, such as a tour de table. This format works for small and medium sized groups and requires participants to state name, organization and expectations for the training. For large groups and online formats, it is a good idea to use online real time survey tools which allow the moderator to ask questions and display the answers in real time.



However, especially for online formats, it is advisable to complement traditional forms of introduction with alternative “icebreaker” methods. Online formats do not provide the same opportunities for informal conversation, such as coffee breaks, as face-to-face formats do. Due to internet connection or bandwidth problems, participants might even switch off their cameras. The result sometimes is a rather anonymous setting which hinders participation and group work collaboration.

The following three icebreakers can be used in online formats instead of or in combination with the traditional tour de table.

1. Introduce your neighbour

Rather than introducing themselves, participants work in pairs and then introduce their neighbour. Participants could ask their partners about their job, their expectations for the workshop or their experience with NbS. It is also possible to include more personal questions, e.g. about hobbies. This method facilitates team-building, provides space for small talk and therefore helps to overcome initial shyness.

1. Tell participants that they will be assigned pairwise to break-out rooms to get to know their partner. Partners can be randomly assigned or determined beforehand by the moderators. They have five minutes to gather the following information about their partner:

- Name, organization and position / job description
- Experience with the topic of the workshop
- What their partner would like to take home from the training
- Favourite holiday destination, favourite food, etc. (adapt as necessary)

It is possible to use online whiteboard tools to document the results, but not necessary. Participants might as well take notes on a piece of paper or in a word document.

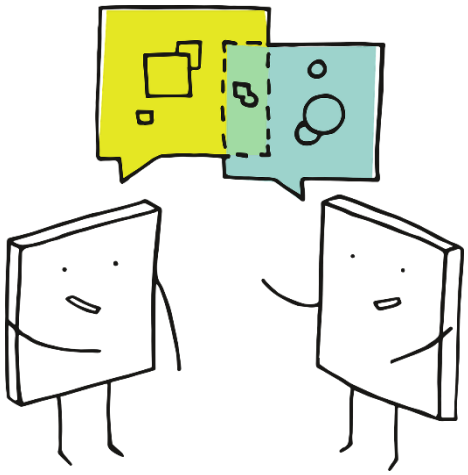
2. When the five minutes are up, bring the participants back to plenary and give each pair one minute to present their partner to the rest of the group.

3. If an online whiteboard was used, it can be made available to participants for the rest of the training.

Time required: 40 minutes, depending on the number of participants – we recommend a maximum of 20 participants.

2. Speed dating

Participants get the chance to talk to several participants for a short amount of time and learn their answers to questions posed by the moderator. It is a great method for groups where most participants do not know each other, since it provides the possibility to talk personally not only to one, but to several participants.



It is advisable to combine this method with a traditional introduction round since it won't be possible for every participant to talk to everyone.

1. Tell participants that they will be randomly assigned to pairwise break-out rooms. They then have two minutes to tell their partners their answer to a question posed by the moderator.

2. After two minutes, the participants are re-matched and again randomly assigned to new break-out rooms. The moderator poses a new question and participants again have two minutes to answer it.

3. Play about 5 to 7 rounds, depending on group size.

Time required: About 15 minutes, depending on the number of rounds played + additional traditional introduction round.

3. A glimpse through the window

This method is a great icebreaker for large groups if there is not much time as it allows for people to discover similarities with other participants and helps create a relaxed atmosphere. Preconditions are an online meeting tool that allows for the gallery view and a more or less stable internet connection.

It is advisable to combine this method with a traditional introduction round for the participants to learn each other's names.

1. Tell participants to switch to the gallery mode and switch off their camera.

2. The moderator than asks different sub-groups of participants to switch on their cameras:

- Everyone who works from …
- Everybody who is new to the concept of NbS...
- Everybody working in Asia…
- Everybody who overslept today…

3. After each statement, everybody switches the camera of again and awaits the next statement. Play several rounds. Depending on the group dynamics, it is possible to include fun questions.

Optional: Moderators can pick someone from the group who switched the camera on and shortly interview him or her, asking for example: “Where exactly do you work? What project do you work on? Why did you oversleep? Etc.

Time required: About 10-15 minutes, depending on the number of rounds played + additional traditional introduction round.

4. Sociometric set-up with Miro

This is an interactive and playful way for participants to share insights about themselves, while at the same time learning about their peers and getting an overview of the group of participants. Precondition for this method is the usage of Miro or a similar online whiteboard tool. Participants will proceed through a sequence of different frames, each of which includes a question, for example about their background, expectations, interests and previous experiences with NbS. Participants can write their answer on a “sticky note” and share it on the Miro board. Alternatively, potential answers can be prepared and displayed in advance and everyone is asked to drag their name (represented on a little “sticky note”) on the respective answer field. The moderator can ask some questions back to the group, for example “I see some of you work in NGOs, can you switch on your cameras?” or ask someone to introduce themselves quickly and share information where they work exactly.

Suggestions for potential questions include:

- Where are you based? (to be represented on a map, see Fig. 1 below)
- Where do you work: civil society, implementing organization, government, academia etc.?
- Which is your field of work: ecosystem-based adaptation, marine conservation, REDD+, cities, agriculture, biodiversity conservation, policy advise, none of the above.
- How familiar are you with the concept of NbS: from “familiar and helpful” to “confusing and little helpful”? (Fig. 2)
- What do you expect from this seminar?
- What are you looking forward to in a post-Covid 19 world/ once most COVID restrictions have been lifted?

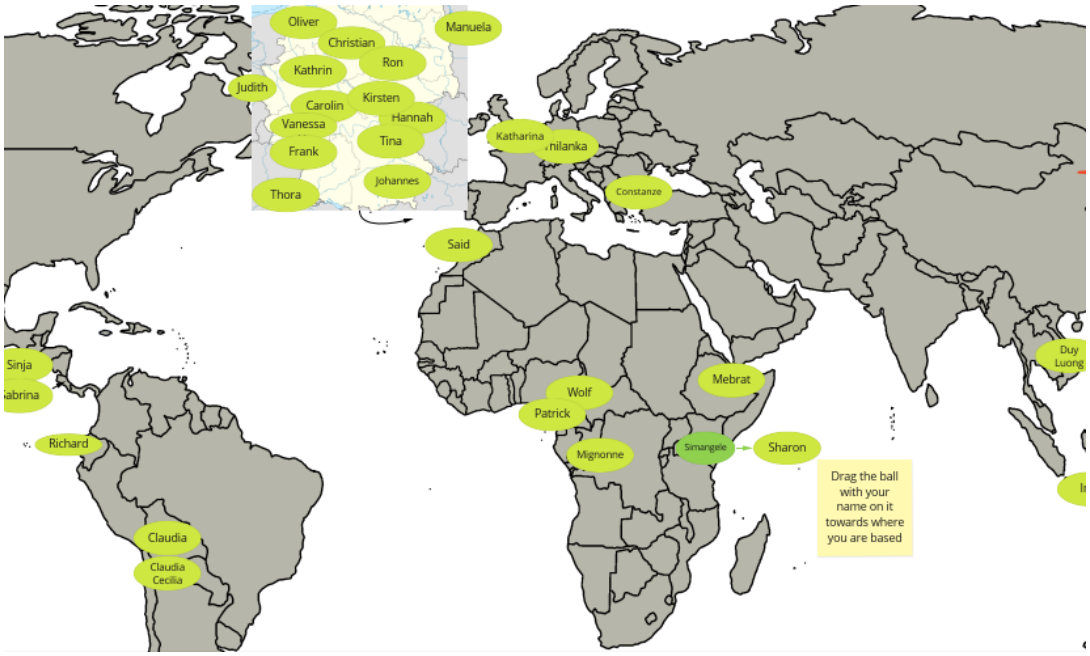


Figure 1: Example of a Miro board for sociometric set-up

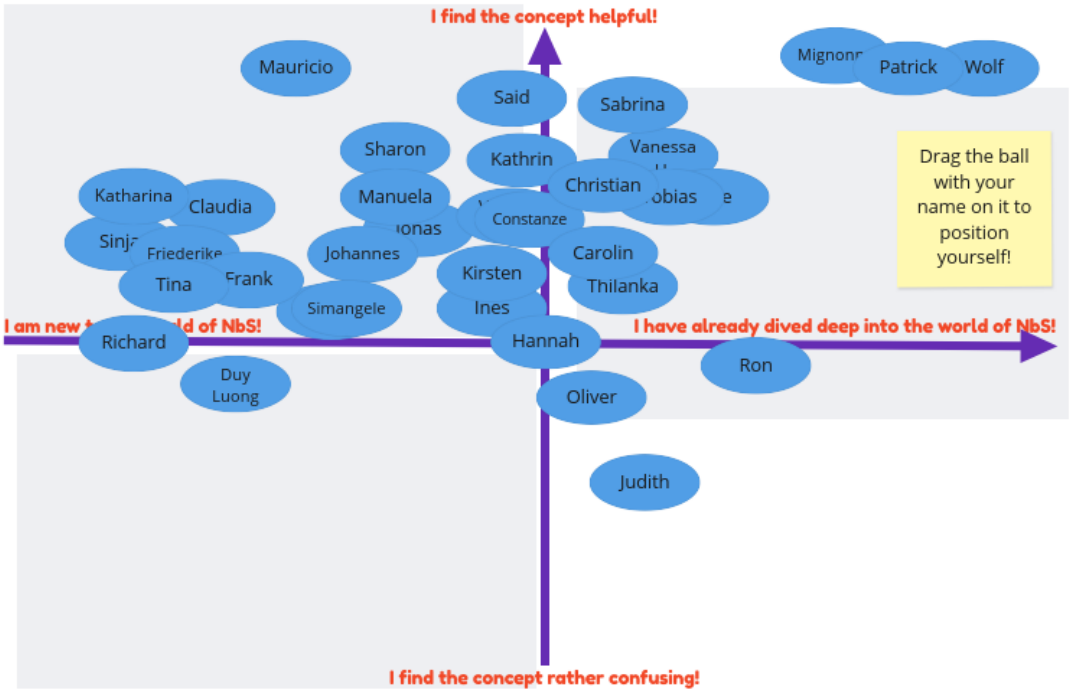


Figure 2: Example of a Miro board for sociometric set-up

Time required: 25 minutes, depending on how many questions are asked

Module 1 | Introduction to NbS

Learning Objectives

After completing this module participants have:

- Received an introduction to the topic of NbS
- Obtained a common frame of reference in terms of focus and language for the training

Guiding Questions

The guiding questions for the content-related part of this module are:

- How is the concept of “Nature-based Solutions” defined?
- Where does the concept come from?
- In which contexts (e.g. biodiversity conservation, climate change mitigation & adaption, sustainable urban development) and on which political levels (e.g. international frameworks, local community-based adaptation) does the concept play a role?
- What standards and other frameworks are available to operationalize the concept?

Content

Definition of Nature-based Solutions

There are several definitions for NbS. The most widely used definition is by the International Union for Conservation of Nature (IUCN): “Nature-based Solutions are actions to protect, sustainably manage, and restore natural and modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits”[8] (Fig. 3). IUCN first developed a number of principles[9] and then most recently the NbS Global Standard[10] which provides a benchmark for NbS planners and implementers. The European Commission understands NbS as “solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions.”[11] The Commission´s definition stresses other aspects than IUCN, e.g. by linking NbS with the resilience concept and highlighting the role of NbS for cities.

NbS always address a societal challenge such as climate change mitigation or adaptation, human health and well-being, food and water security, etc. The solution

[8] https://www.iucn.org/theme/nature-based-solutions

[9] https://portals.iucn.org/library/sites/library/files/resrecfiles/WCC_2016_RES_069_EN.pdf

[10] https://www.iucn.org/theme/nature-based-solutions/resources/iucn-global-standard-nbs

[11] https://ec.europa.eu/info/research-and-innovation/research-area/environment/nature-based-solutions_en

addresses the societal challenge by enhancing or sustainably managing ecosystem services which may generate additional social, economic or environmental co-benefits. For example, more green spaces in cities can help address the urban heat island effect, thereby contributing to human health and addressing climate change impacts in a city while at the same time enhancing the economic value of properties in the vicinity of green areas. According to the IUCN definition of NbS, NbS have to be always "nature-positive" and enhance biodiversity.

Figure 3: NbS for societal challenges (IUCN 2019)[12]

NbS as an umbrella term

The idea that ecosystems provide services for human societies is not new. The concept of NbS as it is understood today, however, has its origins in publications from the World Bank (2008)[13] and IUCN (2009)[14], which build the foundation of ecosystem-based approaches for sectors such as Forest Landscape Restoration, Ecosystem-based Adaption or Eco-Disaster-Risk-Reduction.

In 2015, the EU Horizon 2020 provided a definition for NbS, followed by IUCN which adopted the currently most widely used definition of NbS at the IUCN WCC in 2016.

NbS can be understood as an umbrella concept that covers a whole range of natural ecosystem related approaches that can be classified into:

1. Ecosystem restoration approaches (e.g. ecological restoration and forest landscape restoration).
2. Issue specific ecosystem-related approaches (e.g. ecosystem-based adaptation, ecosystem-based mitigation, ecosystem-based disaster risk reduction).

[12] https://www.iucn.org/news/ecosystem-management/201901/informing-global-standard-nature-based-solutions

[13] https://openknowledge.worldbank.org/handle/10986/6216

[14] https://www.iucn.org/content/natural-solutions-protected-areas-helping-people-cope-climate-change

3. Infrastructure-related approaches (e.g. natural infrastructure and green infrastructure approaches).
4. Ecosystem based management approaches (e.g. integrated coastal zone management and integrated water resources management).
5. Ecosystem protection approaches (e.g. area-based conservation approaches including protected area management).[15]

Particularly since 2018, the NbS concept received growing attention in the climate context. For instance, at the 2019 UN Climate Summit, a coalition of more than 70 countries and 200 initiatives signed the Nature-based Solutions for Climate Manifesto. Increasingly, countries refer to NbS in their revised NDCs. Within the context of the climate Convention, the IUCN definition is mostly used. However, oftentimes a more concrete specification of how NbS also contribute to biodiversity objectives is often lacking within climate policies (e.g. NDCs).

Within the CBD context, NbS were formerly known under the header of ecosystem-based approaches. With the development of the Updated Zero Draft of the GBF, NbS were for the first time included prominently in the CBD context. However, targets in the First Draft of the GBF do not feature the term any longer and refer again to ecosystem-based approaches. Momentum was further built when, during the 2020 UN Biodiversity Summit in New York, leaders from more than 80 countries committed to up-scale NbS by endorsing the "Leader´s pledge for Nature".

The NbS concept also has received criticism. Particularly, the risk of using ecosystem services in a way that causes harm to biodiversity was highlighted. Especially NGOs and environmental organizations fear that the concept might be used by companies and industrialized states to "greenwash" self-interests. It is emphasized that NbS should be implemented in cooperation with indigenous peoples and local communities securing human rights and traditional rights of use. To help mitigate these risks and provide more common ground on NbS, IUCN adopted the Global Standard for Nature-based Solutions in 2020 with 8 principles and 28 indicators to "help design, implement and verify NbS actions"[16] (Fig. 4).

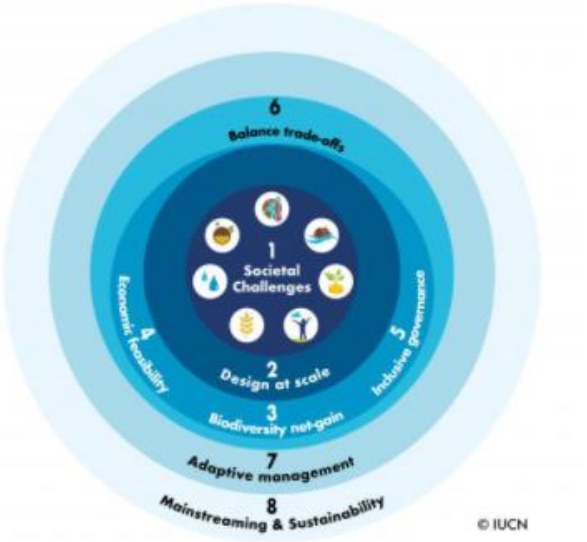


Figure 4: IUCN Global Standard on NbS (IUCN 2020) [17]

[15] https://unfccc.int/sites/default/files/resource/Deutsche%20Gesellschaft.pdf

[16] https://www.iucn.org/theme/nature-based-solutions/resources/iucn-global-standard-nbs

[17] https://www.iucn.org/theme/nature-based-solutions/resources/iucn-global-standard-nbs

Specific examples for NbS

A typical example for a NbS is the restoration or rehabilitation of mangrove forests in coastal areas. The societal challenges addressed are multiple: Mangroves protect coasts from strong waves, typhoons and erosion and serve as nurseries for fisheries, therefore providing livelihoods for local communities. In recent examples, mangrove forests have been transformed in eco parks and tourism has turned into an alternative source of income. Mangrove forests are biodiversity rich forests and serve as carbon storage, thereby mitigating climate change.

Another example from the agricultural sector is the planting of wild meadows coupled with the revival of traditional bee keeping practices to improve pollination services. In cities, green infrastructure such as parks can enhance recreation possibilities, improve air quality, mitigate urban heat islands and serve as biodiversity corridors. By protecting and restoring forests and wetlands, people and companies can benefit from improved water regulation, the protection against soil erosion, landslides and floods and the supply of sustainable forest products.[18]

The potential of NbS for green and blue recovery

Half of the world`s GDP is moderately or highly dependent on nature and eco-system services.[19] The Covid-19 Pandemic shows: Human health and the health of our eco-systems are interconnected. The post-pandemic recovery plans provide a window of opportunity to avoid a “back to business as usual” pathway and to “build back better” instead. In an ambitious vision, sustainability as a minimum requirement (“do no harm”) is replaced by a transformation towards an inclusive, equitable, resilient, net-zero-carbon, low-polluting, nature-positive and circular economy.

NbS can be integrated in recovery plans to reduce biodiversity loss, strengthen climate resilience and to align with net-zero greenhouse gas emissions. NbS outperform typical stimulus investments by creating more jobs and more economic activity.[20] They create win-win situations by protecting nature and providing social and economic benefits as well as by supporting synergies among international processes. As flexible, broadly applicable, reversible and low-cost solutions, they are a „low-regret“ option for policy makers.

NbS should be a mandatory or at least default option for recovery plans but up to now, only 7 out of the 25 major economies invest in NbS. The ‘Next Generation EU’ recovery package is the most environmentally friendly stimulus package, with 37% of its 750 billion € directed towards sustainability initiatives from all sectors.[21]

[18] https://www.naturebasedsolutionsinitiative.org/what-are-nature-based-solutions/

[19] http://www3.weforum.org/docs/WEF_New_Nature_Economy_Report_2020.pdf

[20] https://www.vivideconomics.com/wp-content/uploads/2021/01/201214-GSI-report_December-release.pdf

[21] https://www.vivideconomics.com/wp-content/uploads/2021/01/201214-GSI-report_December-release.pdf

Methods

Input: Introduction to NbS

The objective of this input is to deliver an introduction to NbS, including a clear definition, the history of the concept, key aspects and its role in international biodiversity and climate change frameworks. It is always helpful to illustrate definitions and key aspects by using specific examples. There are a number of options to deliver this input:

1) *Live presentation or recorded video by a scientist, advisor or policy maker working on NbS*

The live presentation could consist of one input focusing on history, definition and relevance of NbS and linkages to related concepts, e.g. the Ecosystem Approach of the CBD. A second presentation could focus on presenting the eight criteria of the IUCN Standard. The inputs could be followed by discussions.

The Sector Programme "Conservation of Biodiversity on Land" from Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) can be contacted for speaker suggestions.

Guiding questions for discussion:

- Could you explain in more detail the consultation process for the global standard: how was it organized, especially considering the circumstances of 2020?
- With regards to all the efforts undertaken by IUCN, how do you explain the continued "confusion" or "lack of joint understanding" in defining NbS in various discourses?
- To your understanding, who should have the "mandate" for NbS? (UNFCCC, CBD, or both?)
- The Global Standard seems to be very ambitious in terms of good governance. Can NbS be implemented everywhere or do they actually not require a political and societal framework that is still all too rare, especially in the countries of the Global South?
- The GBF does include some references to NbS, but in some instances, despite a clear link, NbS are not mentioned. In addition, NbS is not clearly defined in the GBF. How could NbS be anchored more effectively?

2) *A short film, excerpt from a film or a recorded webinar that illustrates the concept of NbS*

Options for videos are:

- Introductory video by the Nature based Solutions Initiative from the University of Oxford https://www.youtube.com/watch?v=9Yq2OPJR-a4&feature=youtu.be
- Video on NbS for Climate Change Mitigation and Adaptation by UNEP: https://www.unep.org/news-and-stories/story/implementation-nature-based-solutions

3) *Reading materials on NbS*

Options for reading materials are e.g. excerpts from the IUCN publication "Nature-based Solutions to address global societal challenges"[22].

Time required: 30-60 minutes

Input: The role of NbS for blue and green recovery

The objective of this input is to introduce the role that NbS could play for a sustainable post-pandemic "blue and green recovery". For this topic, it is important to go beyond political promises and shed light on the actual potential of current recovery plans. Moderators might rely on resources such as the Vivid Economics Greenness of Stimulus Index[23] and critically comment e.g. on the videos mentioned below.

There are a number of options to deliver this input:

1) *A live presentation or recorded video by a scientist or high-level policy maker working on green and blue recovery.*

2) *A short film, excerpt from a film or recorded webinar that illustrates the role of NbS for blue and green recovery*

   Options for videos are:

- Video message by Angel Gurría, secretary-general of the OECD in the context of the OECD-WWF High-level Dialogue: Nature-Based Solutions as a Force for a Green and Resilient Recovery (2020): https://www.youtube.com/watch?v=0mfMZL1_oMs&feature=youtu.be
- Excerpts from the EU German Presidency Event on the European Green Deal and Nature-based Solutions (NbS) in collaboration with the United Nations Environment Programme (UNEP) and the International Union for Conservation of Nature (IUCN): https://www.youtube.com/watch?v=fZoIMGFDal0

3) *Reading materials on the role of NbS in green recovery plans*

   Options for reading materials are e.g. McElwee et al. (2020): "Ensuring a post-COVID-19 economic agenda tackles global biodiversity loss"[24].

Time required: 30 minutes.

Group work: Individual experiences with NbS

The objective of this exercise is for participants to get to know each other and to share their personal experiences with NbS, thus broadening each other's understanding of how NbS might look like and applying the general information received in the previous input (Fig.5).

This exercise could be a good way to kick-start the discussions if the online-training is provided for participants with different sector backgrounds, e.g. implementation organizations' staff.

[22] https://portals.iucn.org/library/sites/library/files/documents/2016-036.pdf

[23] https://www.vivideconomics.com/casestudy/greenness-for-stimulus-index/

[24] https://digitalcommons.library.umaine.edu/cgi/viewcontent.cgi?article=1055&context=c19_teach_doc

Participants are asked to share their personal experiences with NbS in groups and to choose a presenter who will later report back to the plenary. The results could then be summarized orally by the moderator in plenary. Alternatively, the groups choose someone to report back to the plenary.

Guiding questions for participants:

- What NbS do you implement in your project?
- Where do you see most potential for NbS in your work context?

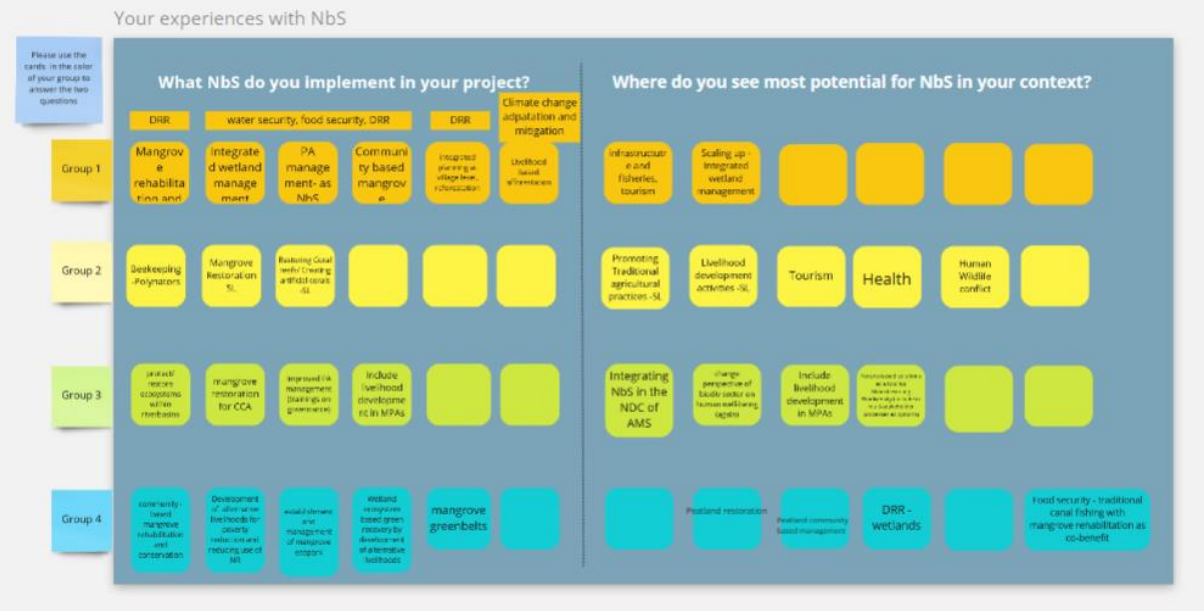


Figure 5: Example of a Miro Borad on individual experiences with NbS (SNRD Training on NbS, February 2021)

Time required: 20 minutes plus 15 minutes for the presentation of results in plenary.

Group work: statements/ beliefs on NbS and short plenary discussion

This method is well suited to pick-up participants from different backgrounds and demonstrate the complexity of the topic of NbS. It allows for multiple interactions between participants as well as short and spontaneous interviews. Break-out groups (with approx. 8-10 participants each) are prepared in advance, to which participants are assigned for this training session. In the groups, participants first have a chance to look at the prepared statements on NbS individually, followed by a round in which everyone indicates which of the statements is the most and least important for them and why. After a short discussion, everyone individually positions the “sticky note” with their name on the Miro board under the statement they most strongly identify themselves with. In the final plenary discussions, participants together take a look at the different positions in order to recognize commonalities and differences, while moderators summarize the findings and provide feedback to the group.

The statements about NbS could be:

1. NbS is just a fancy word for an old concept and has no additional relevance for the content of our work.
2. NbS is merely a buzzword since we have not (yet) agreed internationally and across professional boundaries upon what exactly we mean with the term.
3. NbS stands for the hope of finally fulfilling old promises of development cooperation by means of particularly well planned and implemented measures.
4. NbS are exciting primarily as smart and cost-effective offsetting mechanisms for achieving climate goals.
5. The fancy term NbS helps to mobilise additional resources for biodiversity in times of increasing competition.
6. Every protected area is an NbS.

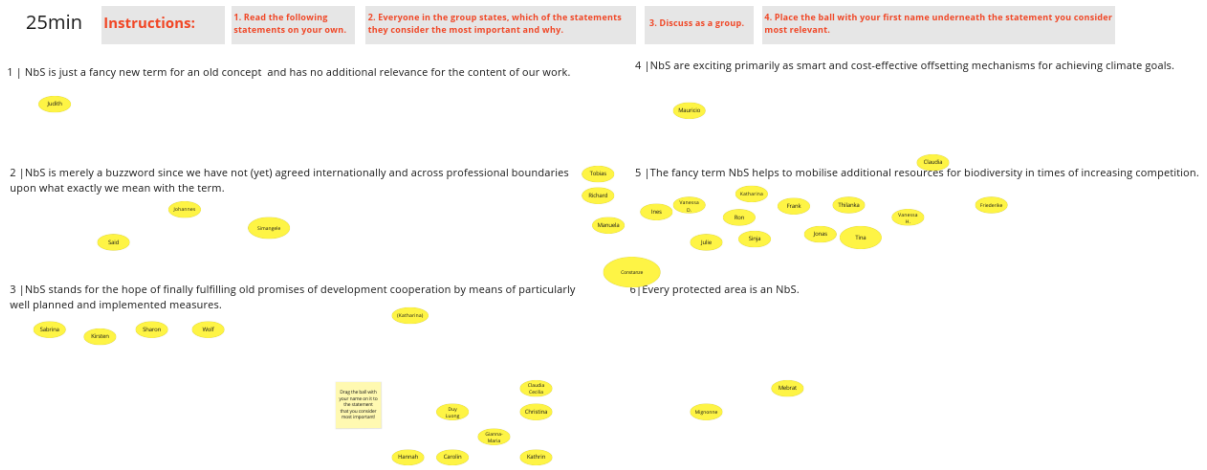


Figure 6: Example of a Miro Board for NbS Statements (SNRD Training on NbS, February 2021)

Time required: 30 min

Module 2 I Group Work Case Studies

Learning Objectives

After completing this module, participants have:

- Understood what can be considered an NbS and what can not
- Learned about the various elements and criteria that are relevant for the implementation of NbS
- Been introduced to concrete examples and case studies of NbS
- Tested the applicability of the IUCN Standard

Guiding Questions

The guiding questions for this module are:

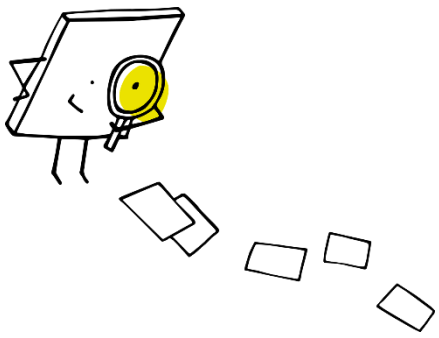
- What comprises NbS?
- What aspects need to be considered during implementation?
- Where are the opportunities in applying the IUCN Global Standard? What challenges arise?

Content

The content of this module is dependent on the focus of the training and participants´ experiences and preferences. Case studies can be chosen from a broad spectrum of topics, depending on the background and work context of participants, e.g. agriculture, forestry or urban development. Cases can be sourced from the participants or provided by external speakers.

If there are several case studies, an option would be to do case study pitches in the beginning of the training followed by one or several group works. For this option, the case givers present their case in plenary for approximately 5 minutes. The participants are thereby introduced to a wider range of NbS examples in different contexts, even if they will work on only one of the cases in the later group work. It is also possible to consider the participants preferences for the group work by conducting a survey before forming the groups.

The focus of the group work can be tailored to the specific needs of participants. In the following methods section, we discuss two options. Both options can be aligned with the contents of Module 4-7 (mainstreaming, governance, financing and monitoring).



1) Case studies to discuss the IUCN Global Standard

Based on a concrete measure from a development cooperation project, selected criteria and the indicators of the IUCN Global Standard are run through and critically discussed in a practice-oriented manner. The criteria can be linked to the contents of Module 4-7 (mainstreaming, governance, financing and monitoring).

2) Case studies to enhance understanding on the contents of Module 4-7 (mainstreaming, governance, financing and monitoring)

Methods – Option 1 – IUCN Global Standard

Case studies build the cornerstone of the training. The case studies serve to apply the learnings on mainstreaming, governance, financing and monitoring to specific contexts. Precondition of this method is access to a versatile whiteboard tool such as Miro.

For the case studies group work, several case studies are provided by case givers. Ideally, they are related to the participants' work background and describe a concrete measure taken from a project in the field of development cooperation. These cases are then used to apply and critically discuss selected criteria and indicators of the IUCN Global Standard. An example agenda for the case studies group work model that addresses the different criteria of the IUCN Standard is provided in Table 1. In the following, the exemplary agenda is described in more detail.

Day 1: Introduction and division of groups (35 minutes)

On the first day of the training, case study pitches are held, during which case givers present their case in plenary for approximately 5 minutes. By doing so, the participants are introduced to a wider range of NbS examples in different contexts, even if they will work on only one of the cases in the later group work. Additional information (links to websites, factsheets etc.) is provided by the case givers approximately one week in advance, which are then also displayed for the participants on the Miro board.

Guiding questions for the case givers are:

- What were the initial challenges that required a solution?
- What was the NbS you found?
- What are 3 lessons learned during the process?
- How is the NbS financed?

After the presentations, an online survey is provided (or alternatively a Miro board) that allows participants to indicate two or three preferences for the cases they would like to work on in the following days. As a homework, participants are invited to get familiar with the IUCN Global Standard. An email is sent out after day 1 that entails further relevant information regarding the standard, e.g. standard overview and guidance for using them.

Table 1: Example agenda group work case studies

First day	**Min**	**Content and process**	**Who?**	**Implementation**
16:00- 16:35	35	Introduction Presentation of Case studies Survey to form working groups	Moderation: Case giver:	1) PPTs/Presentation from Case Giver 2) Survey on Miro
Second day		**Content and process**	**Who?**	**Implementation**
15:00- 16:00	60	Group Work on Case Studies: IUCN Criteria 1 & 3	Moderation:	Miro board
Third day		**Content and process**	**Who?**	**Implementation**
15:00- 16:00	60	Group Work on Case Studies: IUCN Criterion 5	Moderation:	Miro board
Fourth day		**Content and process**	**Who?**	**Implementation**
15:00- 16:00	60	Group Work on Case Studies: IUCN Criteria 4 & 8	Moderation:	Miro board
Fifth day		**Content and process**	**Who?**	**Implementation**
14:35- 15:35	60	Group Work on Case Studies: IUCN Criterion 1 + 3	Moderation:	Mir board
15:35- 15:45	*10*	*Break*		
15:45- 16:45	60	Summary Lessons Learned Presentations and exchange in plenary	Moderation:	Miro board

Day 2-5: Sessions (60 min each)

Once the participants have been assigned to the cases, they start working on them in groups. Each group appoints a moderator for each session and one person who presents the findings in plenary on the last day.

In total, four sessions take place over the course of the training in which participants discuss six of the eight IUCN criteria with respective indicators, one or two criteria in each session. The selection of criteria and indicators can be based on the time available, previous training material as well as preferences of the participants. Working on each criterion takes place in three steps: 1) Participants take approximately 10 minutes to read about the criterion and related indicators and reflect whether the indicators are applicable to the case study 2) The group relates the indicators of the specific criterion to their case study, answering questions like: Where (and where not) does the case study match the indicator? What are options to reach the indicators that haven't been fulfilled? 3) The group assesses the applicability and usefulness of the criterion based on guiding questions.

The case givers are present during each session. Although the sessions are primarily moderated by the participants, case givers can support the group work when participants have questions or need further information. The group work takes place on Miro, where frames are set up for each group and the respective criteria. Participants can use green or red sticky notes to indicate whether a criterion has been fulfilled, and grey in cases where the information is not provided (Fig.7).

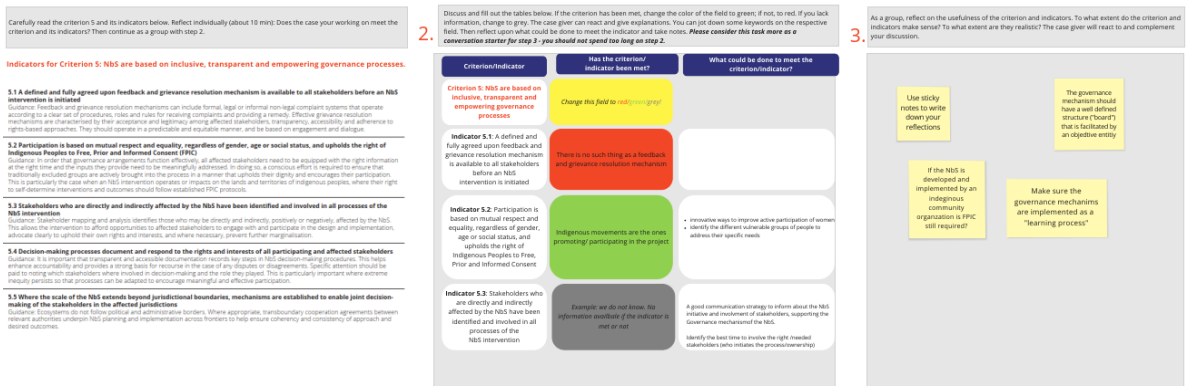


Figure 7: Example of a Miro Board for Case Study Group Work (SNRD Training on NbS, February 2021)

The Sector Programme "Conservation of Biodiversity on Land" from Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) can be contacted for case study suggestions.

Day 5: Discussion of the findings (60 minutes)

In the last session, participants come together in plenary to present the findings and summarize three highlights from the group work (20 minutes). Afterwards, the results are discussed, based on the following guiding questions:

- What are the benefits of the IUCN criteria, what are disadvantages?
- Which challenges arise between standards and their implementation?

The moderator closes the module with a short conclusion.

Methods – Option 2 – NbS implementation

The objective of this group work is for participants to dive deeper into the topic of NbS implementation by analysing a case study and applying the knowledge gained in the different inputs on mainstreaming, governing, financing and monitoring NbS (Modules 4-7). In doing so, participants strengthen their understanding of NbS and practice to identify opportunities for mainstreaming in their own working context. Ideally, the cases are sourced by the participants. The case study deep dive is an addition, but not a substitute, to the inputs on the topics of mainstreaming, governing, financing and monitoring, which will be further elaborated in this guideline.

During the case study analysis, the group is joined by the case giver who serves as a resource person and advisor. To find a good balance between stimulating the participants´ thought processes and expert feedback, it is advisable for the case giver to alternate between silent observer and commentator.

Mainstreaming Nature-based Solutions

If the exercise is carried out online, participants can use digital tools to document their results (Fig.8). The results could then be summarized orally by the moderator in plenary. Alternatively, the groups choose someone to present back to the plenary.

Guiding questions for participants:

- What was the initial problem/challenge that the NbS tried to address? *(Recommended to refresh participants´ memory when the case study pitches have not been presented immediately before the group work).*
- How can the NbS be a solution to the problem for both people and biodiversity? *(Recommended to refresh participants´ memory if the case study pitches have not been presented immediately before the group work)*
- Where do you see opportunities of the NbS case study for up- or broadscaling?
- What could be motivations of other actors or sectors to show interest in the NbS developed?
- Where do you see potential barriers?

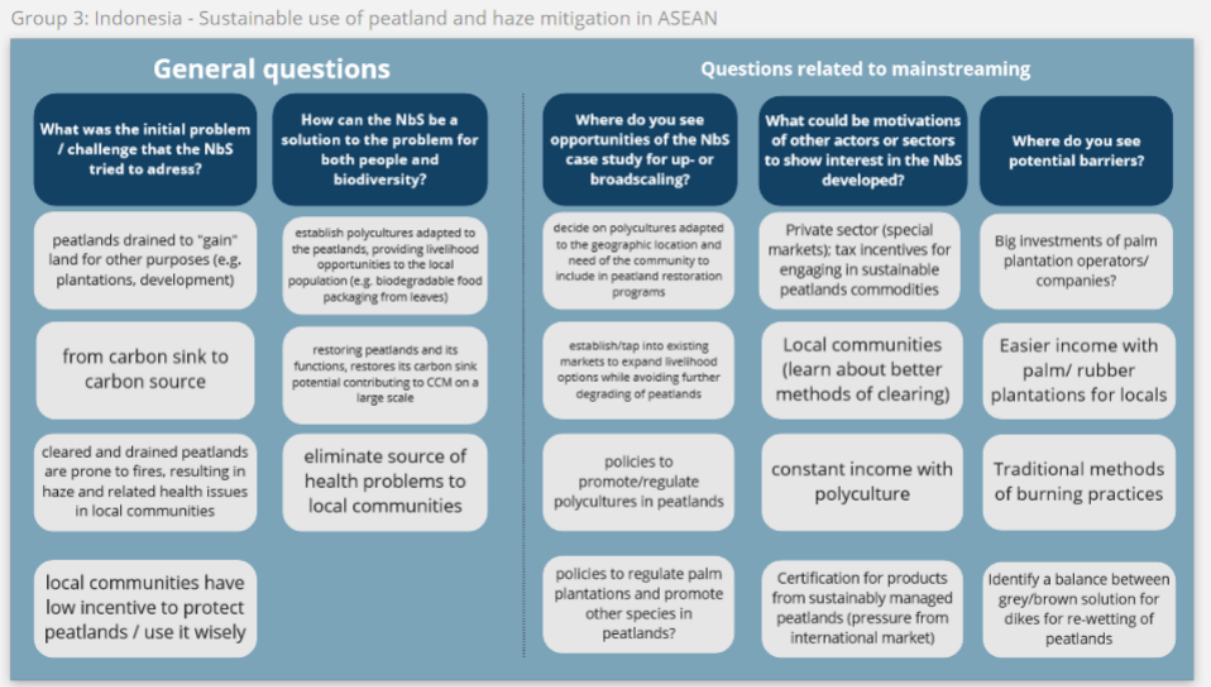


Figure 8: Example of a Miro Board for case study analysis on mainstreaming (SRND Training on NbS, February 2021)

Governing Nature-based Solutions

For a group work on governance, participants might work in the group constellation from the mainstreaming exercise in module 2. The case giver functions as a resource person.

If the exercise is carried out online, participants can use digital tools to document their results. The results could then be summarized orally by the moderator in plenary. Alternatively, the groups choose someone to present back to the plenary.

Guiding questions for the participants are (Fig.9):

- Who is the beneficiary of the project?
- What are additional benefits (co-benefits)?
- Who bears the costs / who loses out in this project?
- What ideas do you have for balancing out costs and benefits?

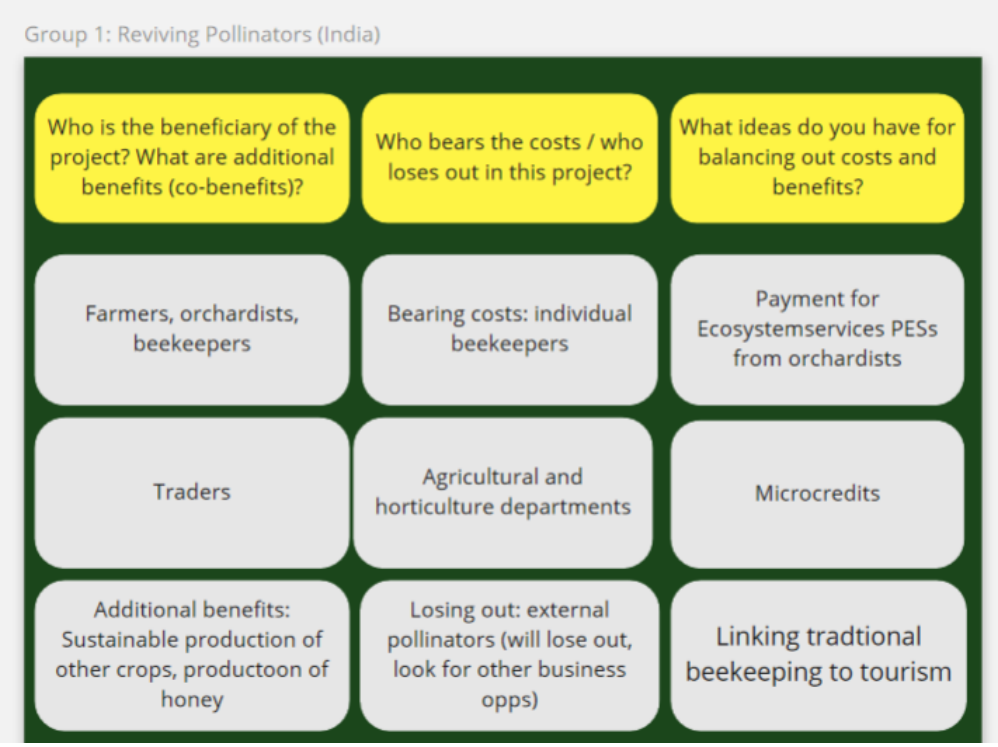


Figure 9: Example of Miro Board for case study analysis on governance (SRND Training on NbS, February 2021)

Time required: 30-45min

Financing Nature-based Solutions

The objective of this group work is that participants reflect upon financing possibilities and risks for the case study they have been working on since the group work on mainstreaming.

The case giver gives a short input on the current financial model of the NbS and then continues in the group work as a resource person.

If the exercise is carried out online, participants can use digital tools to document their results. The results could then be summarized orally by the moderator in plenary. Alternatively, the groups choose someone to present back to the plenary.

Guiding questions for the participants:

- Who is the beneficiary of the project? What are additional benefits (co-benefits)?
- Who bears the costs / who loses out in this project?
- Where would you seek financing for the project? Which other organisations may be interested in financing such a project?
- How could the project be financed once the current financing ends? How could financing be scaled up? How could sustainable financing streams be ensured?
- What risks would prevent funding organisations from financing the project? How would you mitigate these risks?

Time required: 30min

Monitoring Nature-based Solutions

The objective of this group work is that participants reflect upon the importance of monitoring and evaluation for adaptive management. Participants are also invited to take the perspective of the "Theory of Change" approach as an example of a results framework facilitating adaptive management.

In a first step, the participants together with the case giver develop a "vision of change", entailing the intended long-term impacts of the intervention (only if a Theory of Change framework was not applied to the case before).

The case giver then quickly elaborates on the activities, outputs and outcomes realized or aimed for with the intervention.

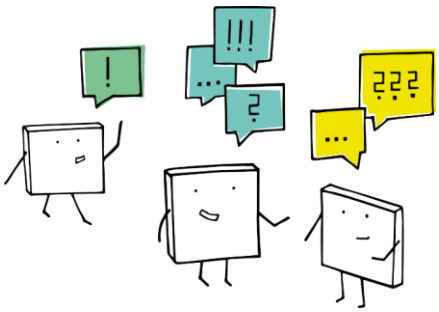
In a last step, participants think of possible unexpected factors that could contribute to or hinder the change intended and therefore require adaptive management. They are invited to draw upon their own experiences in project management.

If the exercise is carried out online, participants can use digital tools to document their results. The results could then be summarized orally by the moderator in plenary. Alternatively, the groups choose someone to present back to the plenary.

Guiding questions for the participants:

- What is the vision of change in which the intervention is embedded?
- What are the steps planned to lead to this vision?
- What are possible barriers or contributions that might require adaptive management?
- How might the adaptation look like?

Time required: 30min



Module 3 I NbS Positions

Learning Objectives

After completing this module, participants have:

- Learned about the diversity of different positions on NbS and discussed them
- Built on the input introducing NbS and group work from module 1 and 2

Guiding Questions

The guiding questions for this module are:

- Which NbS positions exist?
- What are the different opportunities of NbS for biodiversity, climate and policy action?
- What potential challenges do experts see in NbS?

Content

NbS are considered a promising way to simultaneously address challenges related to biodiversity and climate change as well as mainstream biodiversity into other relevant sectors. They play an important role in the context of the UNFCCC and reaching the climate targets that have been agreed on in related negotiations. However, NbS are also controversially discussed and their potential to provide the intended benefits has not been sufficiently assessed yet. Concerns over their reliability and cost-effectiveness in comparison to engineered solutions are growing and sceptics fear that they might increase inequalities and hurt rights of indigenous and local communities. Furthermore, climate mitigation policy might encourage NbS with low biodiversity value, ultimately resulting in maladaptation.

The aim of this module is to provide participants with different positions on NbS and make them understand both their benefits and potential pitfalls. It is intended to build on the input from previous sessions and lead to a stimulating discussion between the participants.

Methods

Input, followed by plenary discussion: NbS Positions

The objective of this input is to introduce participants to a range of different NbS positions and highlight their commonalities as well as differences. Speakers are invited to present their perspective on NbS, what opportunities they bring and what challenges may arise. Based on the input, participants will be able to understand the complexities of NbS and build their own opinion.

To deliver this input, a range of speakers are invited to give a 10 minutes presentation on their position, followed by a short Q&A session. Ideally, the presentations consist of five slides, including: 1) topic and context; 2) key elements/ relevance of the topic for NbS; 3) perceived challenges; 4) case study to illustrate the topic or recommended

action; 5) provocative statement or position to serve as entry point for the panel discussion.

The Sector Programme “Conservation of Biodiversity on Land” from Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) can be contacted for speaker and topic suggestions.

After the individual presentations, the different positions can be discussed in plenary. One option is to display the presented provocative statements/ positions of all speakers on Miro or single PowerPoint slide and give speakers a chance to react to the positions of other speakers. After that, the floor is opened to all participants, allowing them to discuss various opinions and positions. A draft agenda for the input on NbS positions ins provided in Table 2.

Table 2: Draft agenda for input on Nbs positions

Min	Content and process	Who?	Technical implementation
40	Inputs: NbS positions	Moderation: Inputs:	PPTs Speaker Bio Speaker
5	Break		
45	Panel Discussion round	Moderation: Panel:	

Potential questions to distil critical differences and positions:

- No time for equity: do mitigation objectives allow for an inclusive, but time-consuming approach? How much assessment is needed to not impede upscaling?
- Does ensuring no “net” harm mean that doing harm and compensating for it is (or can be) acceptable?
- Co-Benefit or no-benefit for biodiversity: must biodiversity always benefit from NbS or is do no-harm sometimes enough?
- NbS are promises: how can we keep them after the investment is done and the project is over?
- NbS everywhere: can NbS be implemented in fragile contexts and under authoritarian rule?

Required time: 40 minutes for input and 45 minutes for plenary discussion

Module 4 | Mainstreaming NbS

Learning Objectives

After completing this module, participants have:

- Learned what "mainstreaming NbS" means
- Identified entry points for mainstreaming
- Reflected upon opportunities and barriers for mainstreaming with regard to a case study

Guiding Questions

The guiding questions for this module are:

- What does "mainstreaming" mean in the context of NbS?
- Which actors or processes have proven to be good entry points for mainstreaming?
- What are success factors for mainstreaming NbS?
- What are potential barriers for mainstreaming NbS?
- What are examples of mainstreaming NbS?
- How is mainstreaming reflected in the IUCN Global Standard?

Content

What does "mainstreaming NbS" mean?

The Oxford dictionary understands "mainstream" as "the ideas, attitudes, or activities that are shared by most people and regarded as normal or conventional".[25]

Mainstreaming biodiversity means "ensuring that biodiversity, and the services it provides, are appropriately and adequately factored into policies and practices that rely and have an impact on it".[26] Mainstreaming NbS therefore means that NbS are known, applied and systematically integrated in all relevant sectoral and cross-sectoral policies, strategies, programmes and practices.

Mainstreaming discussions within the CBD context

Mainstreaming has been discussed in the CBD context for more than a decade. However, progress is limited. Recent CBD COPs focused on sectors that have a high biodiversity relevance: During COP13, discussions cantered on agriculture, fishery and aquaculture, forestry and tourism. COP 14 focused additionally on sectors such as infrastructure, energy, mining, health, manufacture and processing. The financial sector is considered to be a transversal sector and therefore very important.

[25] https://www.lexico.com/definition/mainstream

[26] https://www.cbd.int/mainstreaming/

Differentiating NbS and biodiversity mainstreaming

While there are overlaps between biodiversity and NbS mainstreaming efforts, they differ with respect to their objectives: biodiversity mainstreaming aims to mainly achieve biodiversity objectives. NbS mainstreaming aims to establish ecosystem-based approaches as a means to achieving other societal ends; for NbS, biodiversity is a necessary co-benefit but not the primary objective.

In order to ensure effective implementation of NbS in different sectors, clear standards are needed, for example the IUCN Global Standard.[27]

Entry points for mainstreaming

Entry points for mainstreaming vary from context to context. The Multiple-Streams-Approach is suitable to theorize the successful mainstreaming of NbS and to identify entry points for future mainstreaming efforts.

The Multiple-Streams-Approach (Fig.10) conceptualizes the agenda setting of political actors as the result of a more or less random overlap of three streams: the problem stream, the solutions- or policy stream and the politics stream. The problem stream describes public awareness on a given problem, e.g. biodiversity loss, climate change or also local problems like the threat of coastal erosion. The solutions stream consists of circulating proposals and strategies. The political stream represents political actors participating in the decision-making process and their interests. If all three streams come together, a window of opportunity opens. This might be the case, for example, if the problem of coastal erosion overlaps with a circulating proposal to implement a NbS, together with the interest of a local politician who is environmentally aware and wants to secure his or her votes for the next election.

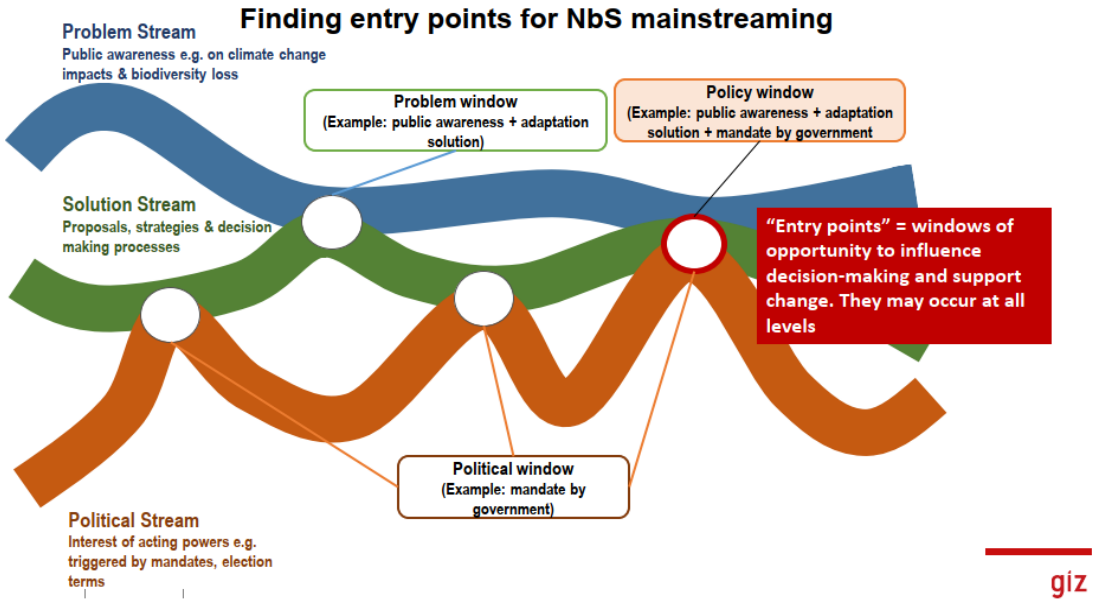


Figure 10: Entry points for mainstreaming NbS(adapted from GIZ 2018)

[27] https://www.iucn.org/theme/nature-based-solutions/resources/iucn-global-standard-nbs

Mainstreaming can happen at all governance levels – at national or local level, in sectoral or cross-sectoral policies. Drawing from other mainstreaming agendas such as the climate change adaptation agenda, entry points for mainstreaming have been identified for different governance levels. In the economic and financial sector, for example, economic recovery plans can be tailored for a "green and blue recovery" and systematically integrate NbS. For an overview, see figure 11 for mainstreaming Ecosystem-based Adaptation as example from the larger family of NbS.

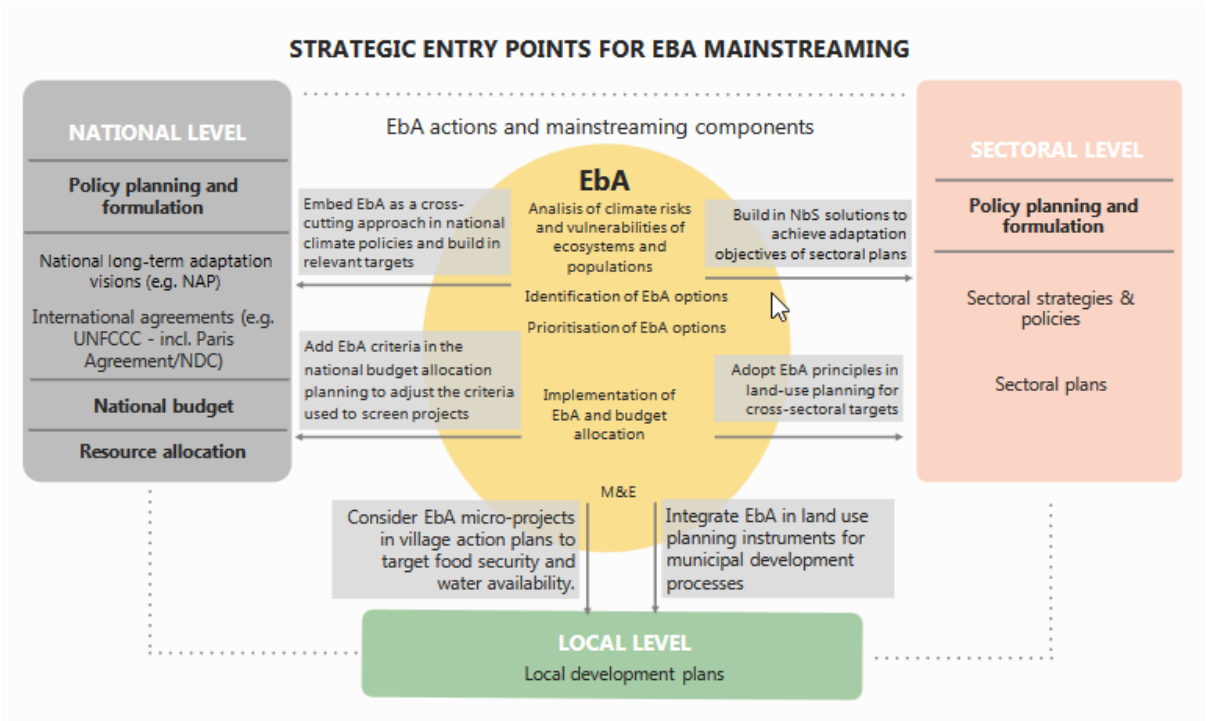


Figure 11: Entry points for EbA mainstreaming at different governance levels (GIZ 2019)

Examples of NbS mainstreaming

In Peru, NbS were mainstreamed into NDC sector implementation. The three streams coincided favourably: High public awareness for climate change and the El Niño impacts as well as the local and regional demand for solutions was met by existing regulatory frameworks such as the Peruvian Climate Change Law, established guidelines on green public investments and a catalogue of green infrastructure solutions. Policy advice and capacity development further contributed to this solution stream. As for the political stream, political leadership from the Ministry of Environment and the Ministry of Finance, a multi-stakeholder dialogue with 13 ministries and civil society as well as the National Climate Change Commission created an open environment for the mainstreaming of NbS. As a result, NbS were integrated in the NDC implementation plans for five sectors: Water, Agriculture, Forestry, Fishery and Aquaculture and Health.[28]

[28] https://www.adaptationcommunity.net/wp-content/uploads/2018/07/EbA-Peru_v4-lr.pdf

In three additional case studies, GIZ examined possible entry points for mainstreaming Ecosystem-based Adaptation as one type of NbS in South Africa[29], the Philippines[30] and Mexico.[31]

Success factors for mainstreaming NbS

Lessons learned from mainstreaming ecosystem-based adaptation efforts can also be applied to NbS. Important success factors include knowledge and information about ecosystem services and their value, human and institutional capacity, a long-term vision of a sustainable future and the role of NbS in it as well as aligned mandates to work towards this vision, participatory processes and monitoring and evaluation.

To influence policy processes, the identification of windows of opportunity is key – this requires a sound understanding of policy processes, institutional arrangements and actors involved. A mixture of bottom-up and top-down approaches can provide opportunities for experimenting with NbS on a local level and mainstreaming NbS on a national level later on. Multi-stakeholder engagement is inherent to mainstreaming processes. Institutional and inter-agency collaboration are needed to move beyond silo thinking. Local governments and the private sector are important drivers of change.

Effective and simple communication about the short-term and long-term benefits of NbS as well as about success stories and existing examples build the basis for mainstreaming NbS. [32]

Successful mainstreaming implies that actors from areas other than the typical conservation community "take over" the implementation of NbS. In order to guarantee that NbS do not harm, but enhance biodiversity and are "nature-positive", once again the importance of safeguards and global standards such as the IUCN Global Standard should be stressed.

Barriers for mainstreaming NbS

Many of the barriers identified in the past for mainstreaming Ecosystem-based Adaptation to Climate Change are equally applicable to NbS in general and in the context of biodiversity.

Different terminologies and methodologies used by the actors involved proved to be important barriers for the mainstreaming of Ecosystem-based Adaptation in development planning.

The alignment of different sectoral policies as well as government levels proved to be a challenging process. In development cooperation, insufficient alignment of donor action is also known to be a problem.

At a local level, unclear institutional mandates or overlaps often generate uncertainty regarding political leadership and taking the initiative to support NbS approaches. The

[29] https://www.adaptationcommunity.net/wp-content/uploads/2018/07/EbA-South-Africa_v05-lr.pdf

[30] https://www.adaptationcommunity.net/wp-content/uploads/2018/07/EbA-Philippines_v02-lr.pdf

[31] • https://www.adaptationcommunity.net/wp-content/uploads/2018/07/EbA-Mexico_v5-lr.pdf

[32] GIZ (2019). Emerging lessons for mainstreaming Ecosystem-based Adaptation: Strategic entry points and processes. Authors: Lili Ilieva and Thora Amend. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Bonn. https://www.adaptationcommunity.net/wp-content/uploads/2019/04/giz2019-en-study_Emerging-lessons-for-EbA-mainstreaming_web.pdf

translation of national government plans into local action can also constitute a barrier to NbS mainstreaming. Often, the national level lacks financial or human capacity or technical skills to support NbS initiatives on the ground. Monitoring and evaluation of NbS is difficult due to the complexity of the institutional arrangements, knowledge gaps and lack of adequate tools.

Finally, mainstreaming processes are long-term processes and often lack adequate funding and time management.

Methods

Input: Mainstreaming Nature-based Solutions

The objective of this input is to explain what mainstreaming means in the context of NbS and why it is important. Participants should gain insights into entry points for mainstreaming as well as get to know best-practice examples for the successful mainstreaming of NbS.

The input can be delivered as a live presentation or a recorded video by a scientist or high-level policy maker working on NbS. The Sector Programme "Conservation of Biodiversity on Land" from Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) can be contacted for speaker suggestions.

Guiding questions for discussion:

- How do you differentiate between biodiversity and NbS mainstreaming?
- According to IUCN GS, NbS always need to be embedded in a NbS strategy and national policy. Do you think this is helpful (and realistic)?
- In your opinion, which sector has the highest potential for NbS mainstreaming?
- Which incentives are needed to get the "big guys" like the private sector, agriculture and infrastructure sector on board?

Other options to deliver this input:

- A short film, excerpt from a film or recorded webinar that illustrates the concept of mainstreaming NbS, e.g. excerpts from one of the following videos:
  - https://www.youtube.com/watch?v=IcOszT36qdc
  - https://www.international-climate-initiative.com/de/infothek/videos/film/show_video/show/mainstreaming_oekosystembasierte_anpassung_lernen_von_guten_beispielen
- Reading materials on mainstreaming NbS, e.g. excerpts from the GIZ publications "Entry Points for Mainstreaming Ecosystem-Based Adaptation"[33]

Time required: 30 minutes

[33] https://www.adaptationcommunity.net/publications/?topic=ecosystem-based-adaptation

Module 5 | Governing NbS

Learning Objectives

After completing this module, participants have:

- Learned how governance can be defined and how it is distinguished from government
- Learned why (good) governance is important for a successful implementation of NbS
- Learned about different types of governance and actors
- Learned about equity as one principles of good governance
- Reflected upon stakeholder constellations, beneficiaries and disadvantaged actors with regard to a case study
- Gained new impulses for the discussion and application in the Group Work Case Studies

Guiding Questions

Guiding questions for this module are:

- What does governance in the context of NbS mean?
- What different types of governance can be distinguished?
- What are important actors in the governance of NbS? How do we ensure that multi-stakeholder decisions benefit all stakeholders and not just a selected few?
- What is “good governance”? What are the main pitfalls?
- How can we ensure that governance and equity considerations are not only included in the project proposal but actually lead to an active and long-term involvement of stakeholders and their interests?
- What differentiates governing NbS from governing biodiversity conservation projects?
- How is governance reflected in the IUCN Global Standard?

Content

What does governance in the context of Nature-based Solutions mean?

Governance is not synonymous to government. It rather describes the entirety of actors, institutions, structures and processes which are part of the decision making, the distribution of responsibilities and the exercise of power, for example in the context of NbS. A central aspect of governance is who is involved or being able to participate and who is to be held accountable for what.

What is “good governance” in the context of Nature-based Solutions?

Healthy nature can be a solution to many societal challenges. However, with regard to governance, the question of “who bears the costs?” and equity considerations are key for a successful implementation of NbS.

The equity framework (Fig.12) derived from the "Voluntary guidance on effective and equitable governance models" established at the CBD/COP/14/8[34] offers a more general orientation and consists of three elements: Recognition, procedure and distribution. Recognition means the acceptance of the legitimacy of rights, interests, values and priorities of every actor involved. Procedure refers to an inclusive process ensuring the participation of all relevant actors, including, for example, those living in remote areas or with limited financial resources. Distribution stands for the distribution of costs and benefits, including trade-offs between generations or different regions. Indigenous people and local communities play an important role for effective and equitable governance and have to be carefully considered when planning for and assessing each element of the equity framework.

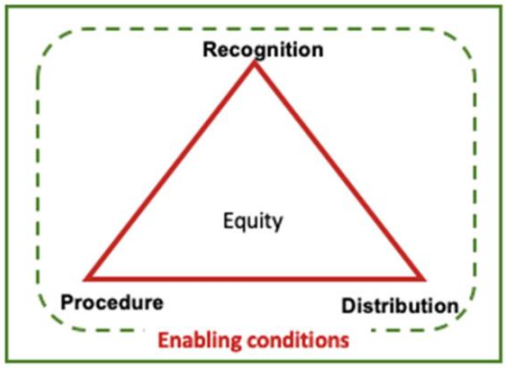


Figure 12: Equity framework(adapted from CBD 2018)

The IUCN approach to NbS, outlined in the publication "Nature-based Solutions to address global societal challenges" (2016) and the IUCN Global Standard for Nature-based Solutions (2020) further spell out the concept of good governance. For example, IUCN proposes "adaptive governance" as one of five operational parameters for NbS to make sure "to meet the changing needs of the people who manage and rely on these ecosystems".[35] Principle three of the Global Standard refers to the inclusion of traditional, local and scientific knowledge. Principle four calls for a fair and equitable production of social benefits as well as transparent and participative processes. Principle seven recalls the trade-offs between immediate economic benefits and long-term economic opportunities and states that NbS should recognize and address these trade-offs. In addition, the importance of good governance is highlighted in criterion 5 of the IUCN Global Standard for NbS, which requires NbS to be based on inclusive, transparent and empowering governance processes. This includes values such as respect and equality regardless of gender, age or societal status as well as the full participation of all affected stakeholders. [36]

Types of governance: The IUCN governance matrix

The IUCN governance matrix (Fig.13) for protected areas can serve as an inspiration for the governance and mainstreaming of NbS. It includes "governance by government", for example by federal, national or regional governments, ministries and

[34] https://www.cbd.int/doc/decisions/cop-14/cop-14-dec-08-en.pdf

[35] https://portals.iucn.org/library/sites/library/files/documents/2016-036.pdf

[36] https://www.iucn.org/theme/nature-based-solutions/resources/iucn-global-standard-nbs

agencies or by local governments. “Shared governance/external agent” includes collaborative or joint management and the cooperation with external agents such as donors and implementing agencies. “Private governance” refers to individual landowners, non-profit organization such as NGOs or universities and the private sector (e.g. tourism operators). The last governance type describes governance by indigenous people or local communities.[37] Next to the four governance types, it is also important to ensure gender equality and female empowerment in the governance of NbS. A move towards gender-transformative approaches in the design and implementation of NbS is required that gives everyone equal and fair access and chances for participation.

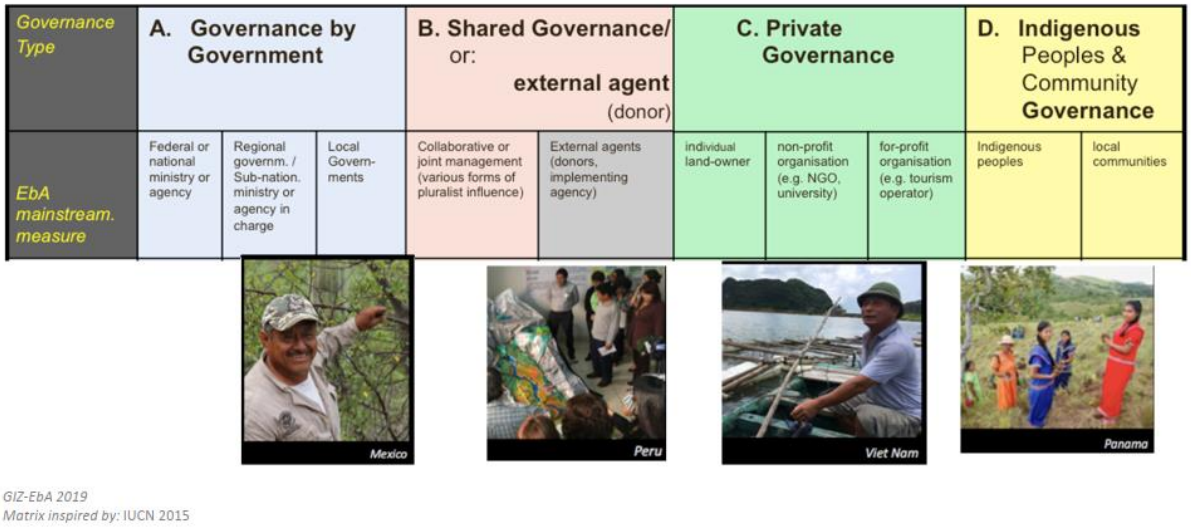


Figure 13: Governing NbS (based on GIZ 2019)

… and Top-down vs. bottom-up approaches

The classical top-down approach usually starts with the international level, for example with an international convention such as the CBD. It then incites action on a regional level and goes down to the national (ministries and other government entities) and subnational level. Through processes such as the NDCs or the NBSAPs, the lower levels connect back to the international level.

Besides the top-down approach, bottom-up approaches can be applied to govern NbS by involving municipalities and local government entities, local organizations and local communities or indigenous people.

These processes can be accompanied by supporting the development of policy instruments, providing capacity building for local institutions and actors, by strengthening coordination at the horizontal and vertical levels as well as through monitoring and evaluation. The involvement of a diverse set of actors (state, civil society, private sector) is essential for successful governance.[38]

[37] Based on GIZ (2019): https://www.adaptationcommunity.net/wp-content/uploads/2019/09/giz2019-en-eba-governance-study-low-res.pdf

[38] Amend, Ilieva & Ruíz, 2021, EU Commission

Methods

Input: Governing NbS Implementation

The objective of this input is to introduce important concepts for governing the implementation of NbS, including multi-stakeholder planning, the IUCN governance matrix and specific institutional arrangements (e.g. community participation or cooperation with the private sector).

The input can be delivered as a live presentation or recorded video by a scientist or high-level policy maker working on governing NbS. The presentation could address key questions such as: What do we mean by governance? Why is governance so important for NbS and who are actors in the governance of NbS? Various topics are addressed, including (gender) equity and fairness in governance, female empowerment, governance models and the IUCN Standard. The Sector Programme "Conservation of Biodiversity on Land" from Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) can be contacted for speaker suggestions.

Guiding questions for discussion:

- How can we ensure that governance and equity considerations are not only included in the project proposal but actually lead to an active and long-term involvement of stakeholders and their interests?
- How to make sure that "multi-stakeholder" decisions will really benefit all stakeholders and not just a selected few (with louder voices)?
- What makes governing NbS different from governing biodiversity conservation projects?
- How do the actors/stakeholders involved in NbS governance differ from biodiversity conservation projects?
- Where do you see a distinct discrepancy between aspiration and the actual implementation with regard to NbS governance? Where do you see the main pitfalls?
  How can we ensure a switch towards gender-transformative approaches in the design and implementation of NbS?

Other options for delivering this input are:

A short film or excerpt from a film that illustrates the concept of governing NbS, e.g. videos could illustrate a case study that highlights governance aspects on implementing NbS.

- Reading materials on governing NbS,e .g. excerpts from the GIZ publication "Governance for EbA: Understanding the diversity of actors & quality of arrangements" (2019)[39]

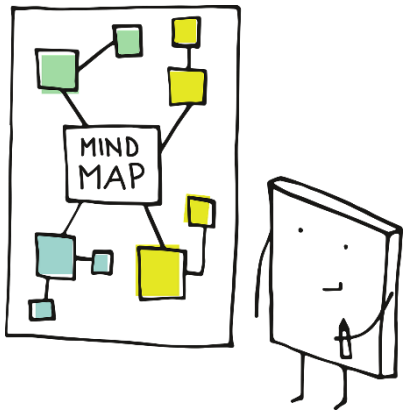
Time required: 30-60 minutes

[39] https://www.adaptationcommunity.net/wp-content/uploads/2019/09/giz2019-en-eba-governance-study-low-res.pdf

Individual reflection: Case study analysis on governing NbS

The objective of this exercise is for the participants to reflect upon the stakeholder constellation in a case study, preferably the case that has already been examined in the group work on mainstreaming. Participants are asked to create a stakeholder map that includes inside and outside actors, links, close relationships and direction of activity or influence, conflicts and other issues (e.g. technical expertise). By doing so, challenges and opportunities in the implementation of the NbS are identified.

Time required: 25 minutes



Module 6 | Financing NbS

Learning Objectives

After completing this module, participants have:

- Gained insights into the potential of NBS to bridge the climate change and biodiversity finance gap
- Learned about existing financing mechanisms
- Learned about the role of the private sector
- Reflected upon financing opportunities and barriers with regard to a case study

Guiding Questions

The guiding questions for this module are:

- What is the status quo and potential of financing NbS?
- What are existing financing mechanisms (sources and instruments) for financing NbS?
- What is the role of the private sector in financing NbS?
- How can the insurance sector contribute to finance NbS?
- What are challenges to financing NbS and resulting recommendations?
- How is financing reflected in the IUCN Global Standard?

Content

Status quo and potential of financing NbS

Climate change mitigation and adaption face a 70 Billion USD finance gap until 2050 - which still seems relatively small to the at least 600 Billion USD finance gap for biodiversity conservation.[40] [41] To close these gaps, additional public but particularly private sector investments are needed.

NbS are considered to have the potential to cost-effectively tackle climate change and biodiversity loss at the same time. They can help reduce the costs of climate change impacts while bringing additional benefits and could provide around a third of the climate mitigation needed by 2030. But NbS only receive a small share of current climate and biodiversity finance, mostly as public funding for small-scale projects.[42] Research shows that currently 113 Billion USD flow into NbS annually. However, the investment needs in 2050 reach over 500 Billion USD, so investments will need to increase significantly if the world is to meet its climate change, biodiversity and land degradation targets[43]. The project character of many NbS interventions also means that they are often time-bound and that long-term financial sustainability is not always

[40] http://gggi.org/wp-content/uploads/2017/03/Mind-the-Gap_web.pdf

[41] https://www.nature.org/content/dam/tnc/nature/en/documents/FINANCINGNATURE_FullReport_091520.pdf

[42] https://wedocs.unep.org/bitstream/handle/20.500.11822/29705/190825NBSManifesto.pdf?sequence=1&isAllowed=y

[43] https://www.unep.org/resources/state-finance-nature

secured. It is a key challenge to anchor NbS in governmental and private sector rationales in such a way that they will not rely on project finance in the long-term.

NbS financing sources and instruments

Financing resources can come from domestic or international, from public or private funds. Of the 113 Billion USD currently spent on NbS, about 86% come from public funds, whereas private finance accounts for the majority of climate finance[44]. International funds from public sources include multilateral funds such as the Green Climate Fund or the Adaption Fund, multilateral development banks (e.g. the ASEAN Development Bank), bilateral technical and financial cooperation and debt-for-nature-swaps. Domestic public financing sources can be provided by national development banks, public budgets or national funds (e.g. People´s Survival Fund from the Philippines). Domestic private financing sources include certification schemes, Reduced Emissions from Deforestation and Forest Degradation (REDD+), market debt, Corporate Social Responsibility, civil society and philanthropy.

NbS can be financed by a wide range of instruments: grants, green bonds, debt financing (e.g. bank loans), payment for ecosystem services, risk insurance, taxes, fees and charges, access to green markets and guarantees. As NbS are highly context specific, there is no "*one-size-fits-all*" solution. Financial instruments rather depend on the ecosystem affected, local climate risks as well as geographical scale and level of implementation.

The role of the private sector

Private finance could help scaling up investments in NbS. Particularly, private finance sources such as commercial finance, private companies and the insurance sector could play a key role.

Relevant instruments to finance NbS include market-based instruments (e.g. Payments for Ecosystem Services – PES), Business Improvement Districts (BID) (e.g. Hamburg-Mitte BID Hohe Bleichen/Heuberg)[45] and Public-Private Partnerships (PPP) (e.g. the LIFE Elia project)[46]. Other examples of private sector finance include the Nature+ Accelerator Fund[47] or the Meloy Fund[48] as an example of blended finance.

NbS and the insurance sector

The reinsurance and insurance industries are increasingly cited as sectors where NbS can play a role to manage risks by improving disaster risk reduction (DRR) and loss prevention. Yet, the substantive engagement between the insurance and environmental sectors is relatively new. Thus, there are only a few fully integrated products, which face some challenges.

[44] Ibid.

[45] https://www.hamburg.de/bid-projekte/4353436/bid-projekt-hohe-bleichen/

[46] http://www.life-elia.eu/en/The-project

[47] https://www.iucn.org/theme/nature-based-solutions/initiatives/nbs-finance-mechanisms-and-funds/nature-accelerator-fund

[48] https://www.meloyfund.com/

Still, there are many common interests and significant opportunities which could help improve this integration, which could lead to innovations beneficial to both sectors and improved resilience outcomes for vulnerable people and for nature.

Interesting examples from the insurance sector include the social business RISCO[49] (mangrove conservation and restoration) or the Ocean Risk and Resilience Action Alliance (ORRAA).[50]

Challenges of financing NbS and recommendations

Lack of awareness or understanding of NbS approaches coupled with limited availability of knowledge and evidence are major challenges to increase funding. Unfavourable policy and regulatory environments and governance challenges also contribute to the finance gap. Technical challenges and gaps in capacity on the other side impede the design of NbS and their wider implementation.

Since it is challenging to gain funding for NbS, it is important to keep in mind the following recommendations:

- Make use of cost-benefit analysis and other assessments to estimate the benefits and cost-effectiveness of NbS to help raise awareness among public and private funders.
- Provide transparency of investments associated with the funding, to allow stakeholders to trace the utilization of their investment and participation.
- Allow for and plan the scalability of measures to increase the impact and attract new commitments from investors.
- Measure and report the achievement of activities that are being financially supported to showcase finance providers that the objectives are being met. This helps to establish a trustworthy relationship with investors.
- Plan for the efficient use of funds with limited overhead costs.

Methods

Input: Financing Nature-based Solutions

The objective of this input is to introduce financial mechanisms apt for or tailored at NbS and to shed light on opportunities and challenges.

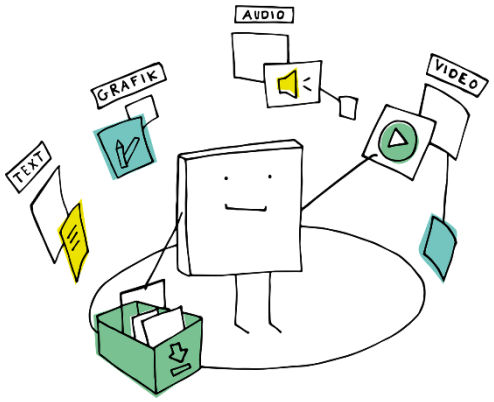
The input can be delivered as a live presentation or a recorded video by a scientist or high-level policy maker working on NbS. Depending on the focus of the training, the presentations could focus on the global state of NbS finance, project finance or private sector finance. The Sector Programme “Conservation of Biodiversity on Land” from Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) can be contacted for speaker suggestions.

[49] https://www.climatefinancelab.org/project/coastal-risk-reduction/

[50] http://www.globalresiliencepartnership.org/partner/ocean-risk-and-resilience-action-alliance-orraa/

Guiding questions for discussion:

- How did you define NbS? To what extent did the analysis consider the IUCN GS?
- Do you see a risk that increased attention to NbS result in reduced funds dedicated to biodiversity?
- What conclusions can we draw from the report for the interdependency between climate finance and biodiversity finance? Where should the finance come from?
- Should donors therefore increase their climate or biodiversity finance?



Other options for delivering this input are:

- A short film or excerpt from a film that illustrates a source or instrument to finance NbS, e.g.:
  - The RISCO model to include the monetary value of mangroves in insurance services: https://vimeo.com/357891886
  - The Cloud Forest Blue Energy Mechanism as an example of Payment for Ecosystem Services (PES) to finance NbS: https://www.climatefinancelab.org/project/cloud-forest-blue-energy-mechanism/
- Reading materials on governing NbS, e.g. excerpts from the GIZ publication "Finance options and instruments for Ecosystem-based Adaptation" (2018)[51]

Time required: 30-60 minutes

[51] https://www.adaptationcommunity.net/wp-content/uploads/2018/06/giz2018-en-eba-finance-guidebook-low-res.pdf

Module 7 | Monitoring NbS

Learning Objectives

After completing this module, participants have:

- Understood the importance of monitoring and evaluation tools as a basis for adaptive management in volatile environments
- Been introduced to existing tools and methodologies available to monitor NbS
- Gained an overview of the steps necessary to effectively monitor NbS
- Learned about the Theory of Change Approach (ToC)

Guiding Questions

The guiding questions for this module are:

- Why is monitoring and evaluation of NbS so important?
- What are recommended steps to monitor NbS?
- What is the Theory of Change Approach?
- How is monitoring reflected in the IUCN Global Standard?

Content

The importance of monitoring NbS

The implementation process for NbS is accompanied by many uncertainties. NbS aim to address multiple societal challenges and to create diverse co-benefits, whichincreases complexity and potentially leads to trade-offs. The key of managing this complexity is adaptive management. In order to gain the information necessary to adapt projects where needed, it is essential to regularly assess whether or not the initial project objectives are met and why. This implies closely monitoring and evaluating the implementation of NbS.

Steps recommended for NbS Monitoring and Evaluation

The GIZ publication “Guidebook for Monitoring and Evaluating Ecosystem-based Adaptation Interventions”[52] recommends four steps to monitor and evaluate NbS.

In a first step, a results framework is developed. In order to assess the impact of a NbS, clear objectives have to be set and the pathway to achieving them has to be outlined. The results framework outlined in the guidebook can assist in this step. The guidebook further introduces a Theory of Change Approach for EbA.

In a second step, indicators, baselines and targets are defined. The guidebook introduces several types of indicators with an emphasis on outcome and impact indicators to measure the effectiveness of the EbA.

The third step consist in operationalizing the monitoring and evaluation system. Key elements that are described in the guidebook are the selection of the right evaluation

[52] https://www.adaptationcommunity.net/publications/guidebook-for-monitoring-and-evaluating-eba/

design, considerations about data types and the elements of effective and efficient data collection, entry, analysis and interpretation.

In a fourth and last step, the information gained is used to inform adaptive management and to communicate the results to external audiences such as donors, communities, policy makers and the wider adaptation community.

The Theory of Change Approach

The Theory of Change framework is a type of results framework ideally developed through a multi-stakeholder process in the beginning of a project. It is particularly well-suited for complex and long-term interventions such as Ecosystem-based Adaptation as an example for NbS.[53]

In contrast to other result frameworks, the ToC approach is systemic. It describes how the intervention wants to achieve long-term change while including the wider context and external factors. It creates causal pathways between activities, outcomes and impacts. It also outlines underlying risks and assumptions. By doing so, a ToC framework identifies possible barriers and contributions to change or even different pathways.

The iterative and flexible character of the ToC approach makes it possible to adapt the intervention to changes in the environment.

The ToC approach helps to identify both short and long-term indicators. It analyses the distribution of costs and benefits over time. Finally, due to its long-term character, the framework requires a common vision of change (GIZ, UNEP-WCMC, FEPA 2020).

Methods

Input: Monitoring NbS

The objective of this input is to introduce tools and methodologies for monitoring NbS.

The input could be delivered as a live presentation or recorded video by a scientist or high-level policy maker working on NbS monitoring. The presentation could focus on the Theory of Change and indicator development, the IUCN Global Standard and monitoring related criteria and indicators. The Sector Programme “Conservation of Biodiversity on Land” from Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) can be contacted for speaker suggestions.

Guiding questions for discussion:

- Do you have an overview to what extent projects currently comply with IUCN GS with respect to monitoring requirements?
- How can projects be supported to better reflect the IUCN GS monitoring requirements regarding social and ecosystemic goals?

[53] GIZ (2020): https://www.adaptationcommunity.net/publications/guidebook-for-monitoring-and-evaluating-eba/

Other options for delivering this input are:

- A short film, excerpt from a film or recorded webinar that illustrates the concept of monitoring NbS, e.g. the recorded webinar "Introducing the Guidebook for Monitoring and Evaluating Ecosystem-based Adaptation": https://www.adaptationcommunity.net/online-sessions/webinar-introducing-the-guidebook-for-monitoring-and-evaluating-ecosystem-based-adaptation/
- Reading materials on monitoring NbS, e.g. excerpts from the GIZ publication "Guidebook for Monitoring and Evaluating EbA" (2020)[54] or "Performance and Impact Monitoring of Nature-Based Solutions"[55]

Time required: 30-60 minutes

[54] GIZ, UNEP-WCMC and FEBA (2020) Guidebook for Monitoring and Evaluating Ecosystem-based Adaptation Interventions. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Bonn, Germany. https://www.adaptationcommunity.net/publications/guidebook-for-monitoring-and-evaluating-eba/

[55] Wendling et al (2019) https://unalab.eu/index.php/system/files/2020-02/d31-nbs-performance-and-impact-monitoring-report2020-02-17.pdf

Module 8 | Communicating NbS

Learning Objectives

After completing this module, participants have:

- Understood the importance of and challenges in communicating NbS effectively
- Learned about approaches for targeted and inclusive communication
- Discussed examples of gender-sensitive communication

Guiding Questions

Guiding questions for this module are:

- What aspects need to be considered when drafting an effective and targeted communication strategy?
- Who are the actors/ what is the target audience that should be addressed?
- What challenges (dissemination barriers) might be encountered that hinder the effective communication of NbS?

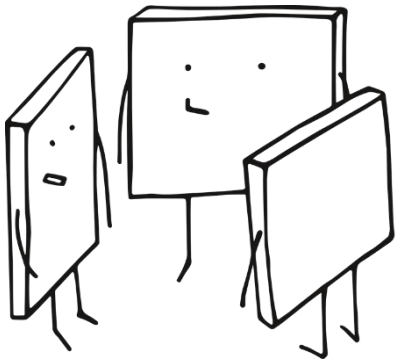
Content

Targeted and effective communication of the NbS concept and chosen approaches is key. Only if both the sender and recipient have the same understanding, a successful process and correct implementation can be ensured. This module aims to provide participants with necessary knowledge on communication and public relations work in order to enable them to design effective communication strategies. It highlights key actors that need to be addressed and outlines existing approaches for communication that incorporate important aspects such as inclusion and gender-sensitivity.

Methods

Input: Communicating NbS

The objective of this input is to demonstrate to participants how NbS are effectively communicated. This input can be delivered through a live presentation, a recorded video or an audio supported by a visual presentation format by a scientist or high-level policy maker working on NbS. This can be followed by a discussion in plenary.



The Sector Programme “Conservation of Biodiversity on Land” from Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) can be contacted for speaker suggestions.

Guiding questions for the discussion are:

- How do communication and public relations work contribute to a successful NbS implementation?
- Who should be the target group of communications work? How can we ensure that everyone (youth, elderly people, people in urban and rural areas etc.) has access to the information?
- What can be ideas for inclusive communications, e.g. for illiterate people?
- Did you use gender-sensitive communication in your project? How can gender-sensitive communication look like?

Time required: 30 minutes

Module 9 | Examples for NbS

Learning Objectives

After completing this module, participants have:

- Received a presentation of individual NbS, which are not explicitly connected to the other seminar contents
- Discussed how the examples can be classified and connected to societal challenges

Guiding Questions

Guiding questions for this module are:

- What societal challenges exist and how can these be addressed with NbS?
- What examples of NbS exist in different sectors?

Content

The content of this module is highly dependent on the overall training context and group work results. The aim is to provide participants with a selection of individual examples of NbS, which are connected to the participants' background or sector they work in. After the presentation of NbS examples, participants are able to discuss the cases and relate them to the broader context.

Methods

Input: Examples of NbS

The objective of this input is to present examples of various NbS. One option to deliver this input is to provide participants with a live presentation, a recorded video or an audio supported by a visual presentation format by a scientist or high-level policy maker working on NbS. The Sector Programme "Conservation of Biodiversity on Land" from Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) can be contacted for speaker and topic suggestions.

The presentations are followed by a discussion based on guiding questions, such as:

- Which societal challenge is addressed by the example?
- Does the example comprise protection, sustainable management or restoration?
- (How) is conservation of biodiversity guaranteed?
- (How) are conflicting goals moderated?

Time required: 30-35 minutes (15 minutes presentation and 15 minutes discussion based on guiding questions)

Module 10 | Open interactive exchange

Learning Objectives

After completing this module, participants have:

- Collectively suggested and decided upon a range of topics for further investigation in groups
- Participated in, or even organized, an Open Space session on a topic of their choice
- Discussed the conclusions in plenary

Guiding questions

Guiding questions for this module are:

- What are topics of interests to the participants that are not addressed in the agenda yet?
- What aspects/ topics are relevant for the sector or field that participants work in?

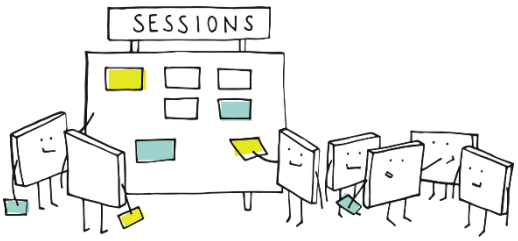
Content

The content of this module is dependent on the overall training context and the individual interests of the participants. Participants can suggest and choose topics that they are particularly interested in or have specialized experience in. Based on the suggestions, the team of organizers chooses 4 to 6 topics they perceive as most relevant for further investigations.

Methods

Group work: Open Space Sessions

In advance of the training, participants receive an email with a link to the Miro board that will be used during the training to collect topics and suggestions for break out groups. On the first day of the training, participants will be reminded to look at the Miro board and start adding potential topics that interest them or that they would like to dive deeper into. Participants are also invited to host their own session about a topic of their choice. Once the participants have added their suggestions, which should be completed on day two, the team of organizers starts viewing and clustering them. They can add further suggestions, for example based on questions that came up during the sessions of the first two days of the training.



Suggestions for topics include:

- Short inputs about NbS in UNFCCC and CBD processes in individual countries (must be queried beforehand)
- Relevance of NbS in the work context of the participants, potentially combined with previous homework or research task: To what extent are biodiversity and climate agendas considered together in partner countries?
- Marketplace for the presentation of projects and topics from participants

After the topics have been finalized, participants have the opportunity to choose the topics that they are most interested in and indicate it on the Miro board, e.g. by dragging an object with their name to the session they would like to participate in.

On the third day, the day on which Open Space Sessions are recommended to take place, the team of organizers prepares the 4-6 break-out groups according to the suggested topics and indicated preferences of the participants. The findings of the Open Space Sessions, which are attended or hosted by the participants, are discussed in plenary afterwards.

Required time: 35 minutes for Open Space Sessions and 10 minutes for plenary discussion

Module 11 | Conclusion and reflection

Learning Objectives

After completing this module, participants have:

- Individually reflected on the lessons learned in smaller groups and summarized them as key messages
- Participated in a plenary discussion with guests to discuss the lessons learned and key messages

Guiding Questions

Guiding questions for this module are:

- What are the key learnings about NbS that were derived from the training?
- What are challenges and opportunities for NbS and how can these be addressed? What does this mean for development cooperation and the wider context, for example for the Transformative Change Agenda?
- What are possible next steps for the enhancement of NbS in the region?
- What are priorities for further trainings and networking efforts?

Content

The content of this module is highly dependent on the overall training context and group work results.

It gives participants an opportunity to look back on the previous modules and at the same time anticipate the next steps and priorities for future efforts. The module can be used to give participants a chance to individually reflect on the lessons learned, formulate key messages and discuss them with guests and speakers from relevant fields (Methods – Option 1). Alternatively, it can also serve to reflect on the challenges and opportunities of NbS and take a forward-looking approach to identify the necessary steps for promoting NbS (Methods – Option 2).

Methods – Option 1 – Key messages and questions on NbS

Group work: formulation of key messages and questions

On the day before the module, participants are informed about the rationale of the module and invited to start reflecting on the previous sessions and what stood out for them. At the beginning of the actual session, participants are split into small groups (approximately 5 groups), in which they first have a few minutes to individually reflect on the content from the previous days, guided by the question “What are the two most important lessons learned or remaining open questions from this seminar for you?”. Each group is provided with a Miro board, on which participants can sketch their ideas and thoughts (max. 2 post-its per person, one key message and one open question).

Each group appoints a speaker, who will later present the findings from the group work. In a first round, each group member briefly presents his or her post-its with their key message and question. After that, all group members together categorize and cluster

the key messages and questions and collectively formulate a range of key messages (Fig.14). The goal of this activity is not to have final positions or statements about NbS, but rather to collect interesting and potentially provocative impulses for the further discussion on NbS. Ultimately, the groups prioritize the key messages by vote of the most popular ones. The appointed speaker puts two of the prioritized key messages on a central Miro board that is accessible to everyone.

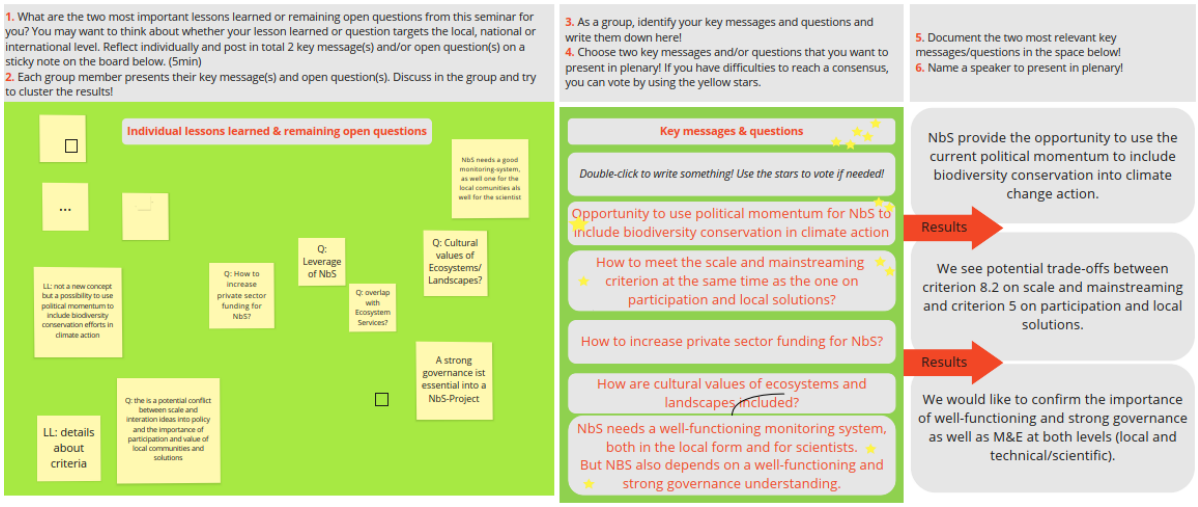


Figure 14: Example Miro Board for key messages (SNRD Training on NbS, February 2021)

Inspiration for the key messages and key questions:

Global level:

- What should be considered an NbS, what not?
  - What is definitely not a NbS?
- Should NbS address/ consider all or only certain societal challenges?
  - Can we agree on important criteria?
  - What role should/ must biodiversity play in NbS?
- IUCN Global Standard (for DC and beyond): adopt, complement, or reject?

National level:

- How to support partner countries to integrate NbS in different processes and agendas?
  - i.e. integrate in NDCs and/ or NBSAPs?
- How to make the best use of synergies?
  - What are the challenges in doing so?

Implementing at the local level:

- Balancing trade-offs and building social and environmental safeguards:
  - How can the conservation of biodiversity be ensured?
  - How to ensure environmental justice, governance and equity aspects?
- What requires more DC attention than before, when implementing NbS?
  - Where do we/ our partners need systematic support?

Time needed: 40 minutes

Panel discussion: reactions on key messages

After the group work, all participants come together for a final discussion of the key messages. The panel discussion is supported by speakers and guests, for example internal experts for NbS, whose experiences and perspectives have been incorporated into the seminar's concept. It is also suggested to have a speaker from IUCN among the guests. The panelists quickly introduce themselves. This is followed by a presentation of the key messages and key questions by the appointed speaker of each group, using the Miro board. The panellists directly react to the messages and questions. Possible questions for the panellists include:

- Which of the statements is most surprising or, from their perspective, mostrelevant?
- Which statement do they disagree most with and why?

After one panellist has shared his or her thoughts, other panellists come in for a common discussion. Participants can ask questions in the chat. After all panellists have shared their thoughts and were able to react to the other positions, the discussion is opened to all participants.

Further suggestions and thoughts for key messages and the discussion:

- **No time for equity:** do mitigation objectives allow for an inclusive, but time-consuming approach?
- **Co-Benefit or no-benefit for biodiversity**: must biodiversity always benefit from NbS or is do no-harm sometimes enough?
- **NbS are promises:** how can we keep them after the investment is done and the project is over?
- **NbS everywhere:** can NbS be implemented in fragile contexts and under authoritarian rule?
- **NbS in the context of global conventions:**
    - "They need to be made integral part of CBD, hence explicitly mentioned in the post 2020 Global Biodiversity Framework" vs.
    - "NbS have the aspiration to go beyond all existing individual frameworks / conventions, and as such need to be made part of all overarching global agendas / reportings"
- Whether the **concept and terminology** NbS should be adopted by the GBF is still debated. If they are to be incorporated, it needs to be discussed to which convention they belong to and how to ensure synergies at local, national and global level.
- Which **societal challenges** are NbS supposed to address: while mitigation is undisputed, opinions are less uniform when it comes to adaptation and other topics such as One Health
- Positions about "**social safeguards**" are largely indisputable, but how can we ensure to meet the requirements?

Time needed: 45 minutes

Methods – Option 2 – Next steps for promoting NbS

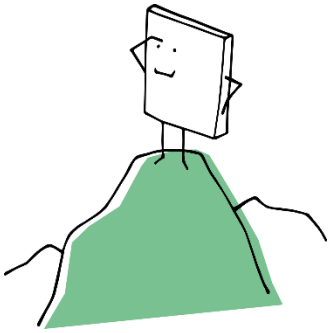
Input: Summary of challenges and opportunities

The objective of this input is to summarize the challenges and opportunities for NbS that came up during the training. The input is given by the facilitators. It is meant to connect the inputs, group work results and different modules and to draw conclusions.

Time needed: 30 minutes

Panel discussion: Next steps for promoting Nature-based Solutions

In a panel discussion, experts discuss exchange formats and tools for building a (regional) network on NbS, how to take advantage of identified opportunities and how to overcome common challenges. The discussion is meant to identify next steps in the promotion of NbS.



Time needed: 50 minutes

Group work: Prioritization of topics

The objective of this group work is for participants to identify priority topics for further trainings or capacity building as well as opportunities to further enhance networking and communication about NbS (Fig.15).

If the exercise is carried out online, participants can use digital tools to document their results. The results could then be summarized orally by the moderator in plenary. Alternatively, the groups choose someone to present back to the plenary.

Guiding questions for the participants:

- What networking opportunities for NbS do you see?
- What are priority topics for further capacity building, e.g. in form of trainings like this one?
- How can the potential of NbS be more effectively communicated?

Time required: 50 minutes

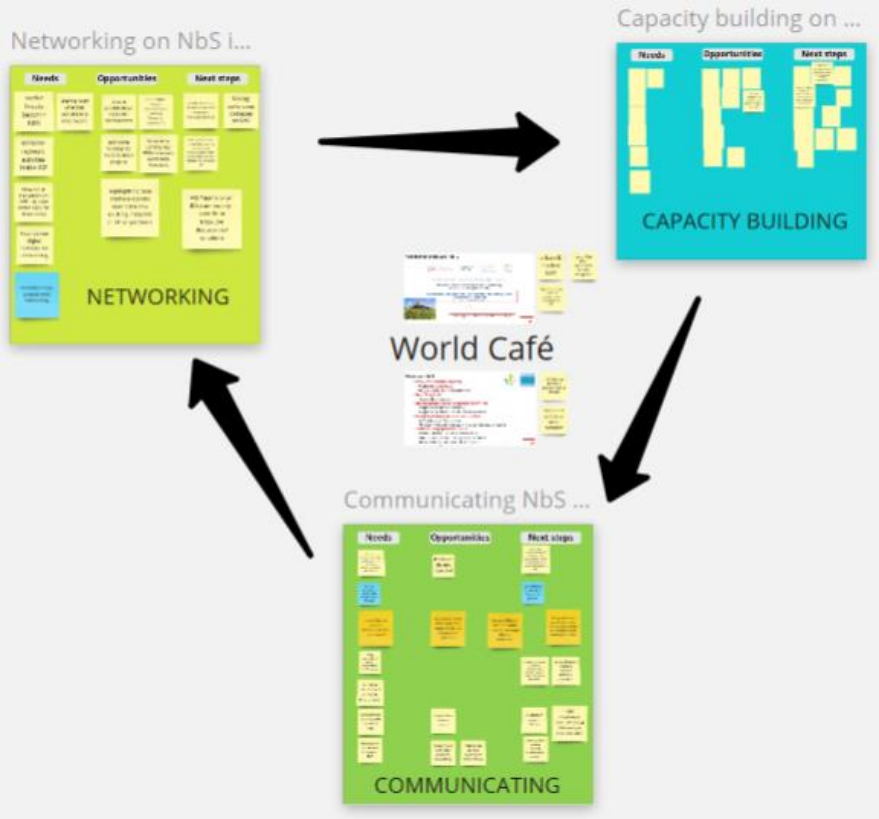


Figure 15: Example of Miro Board for group work on prioritization of topics (SNRD Training on NbS, February 2021)

Individual reflection: Next steps in the individual work context

In a final individual reflection exercise, participants reflect upon the next steps for the enhancement of NbS in their individual work context.

If the exercise is carried out online, participants can use digital tools to document their results. Since the results will not be reported back to the plenary, it is also possible to tell participants to use their individual note taking system.

Time required: 20 minutes

Online evaluation & feedback

As mentioned in chapter 2 – Tools for an online format, the training evaluation can be realized with the help of an online survey tool, e.g. LimeSurvey. When designing the survey, it is important to ensure anonymity and to enable free comments, so that critical or positive feedback is not missed.

It is also possible to complement or substitute the online survey with an open feedback round, for example in plenary or using an online whiteboard.

Resources

General information on biodiversity and NbS

- **IPBES global assessment** (2019): https://ipbes.net/global-assessment
- **Global Biodiversity outlook 5** (2020): https://www.cbd.int/gbo5
- **NbS Initiative**, University of Oxford (2021): https://www.naturebasedsolutionsinitiative.org/
- IUCN (2020): **IUCN Global Standard for Nature-based Solutions**. https://portals.iucn.org/library/sites/library/files/documents/2020-020-En.pdf
- Cohen-Shacham, E., Walters, G., Janzen, C. and Maginnis, S. et al. (2016): https://portals.iucn.org/library/sites/library/files/documents/2016-036.pdf
- OECD (2020): Nature**-based solutions for adapting to water-related climate risks.** https://issuu.com/oecd.publishing/docs/nature-based-solutions-for-adapting-to-water_relat
- Barber, C.V., R. Petersen, V. Young, B. Mackey, C. Kormos. (2020): *The Nexus Report:* **Nature Based Solutions to the Biodiversity and Climate Crisis.** F20 Foundations, Campaign for Nature and SEE Foundation. https://www.foundations-20.org/wp-content/uploads/2020/11/The-Nexus-Report.pdf
- Dasgupta Review (2021): **The Economics of Biodiversity** https://www.gov.uk/government/publications/final-report-the-economics-of-biodiversity-the-dasgupta-review
- CBD (2019): **Voluntary guidelines for the design and effective implementation of ecosystem-based approaches to climate change adaptation and disaster risk reduction and supplementary information.** Technical Series No. 93 https://www.adaptationcommunity.net/wp-content/uploads/2019/06/2019-cbd-eba-ecodrr-guidelines-part1-2-3-web.pdf
- The Nature Conservancy (2018): **Strategies for Operationalizing Nature-Based Solutions in the Private Sector.** https://www.nature.org/content/dam/tnc/nature/en/documents/NBSWhitePaper.pdf
- IUCN / University Oxford (2019): **Strengthening NbS in national climate-commitments / NDCs** https://www.iucn.org/theme/climate-change/resources/key-publications/strengthening-nature-based-solutions-national-climate-commitments
- German International Climate Initiative (IKI) (2014): **Biodiversity criteria for climate change projects** https://www.international-climate-initiative.com/en/?iki_lang=en https://www.unep-wcmc.org/resources-and-data/biodiversity-criteria-in-iki
- FEBA (Friends of Ecosystem-based Adaptation) (2017): **Making Ecosystem-based Adaptation Effective: A Framework for Defining Qualification Criteria and Quality Standards** (FEBA technical paper developed for UNFCCC-SBSTA 46) https://pubs.iied.org/pdfs/G04167.pdf
- N.Doswald, R.Munroe, D Roe, A.Giuliani, I.Castelli, J.Stephens, I.Möller, T.Spencer, B.Vira & H.Reid (2014): **Effectiveness of ecosystem-based approaches for adaptation: review of the evidence-base** https://www.tandfonline.com/doi/abs/10.1080/17565529.2013.867247
- Reid H, Hou Jones X, Porras I, Hicks C, Wicander S, Seddon N, Kapos V, Rizvi A R, Roe D. (2019): **Is ecosystem-based adaptation effective?** Perceptions and lessons learned from 13 project sites. IIED, London https://pubs.iied.org/pdfs/17651IIED.pdf
- N.Kabisch, H.Korn, J.Stadler, A.Bonn (2017): **Nature-Based Solutions to Climate Change Adaptation in Urban Areas (**open access book): https://link.springer.com/book/10.1007%2F978-3-319-56091-5
- Marselle M., Stadler J., Korn H., Irvine K., Bonn A. (eds, 2019): **Biodiversity and Health in the Face of Climate Change**. Springer, Cham. https://doi.org/10.1007/978-3-030-02318-8_14

- Vignola, R., C.A.Harvey, P.Bautista-Solis, J.Avelino, B.Rapidel, C.Donatti, and R.Martinez. (2015): **Ecosystem-based adaptation for smallholder farmers:** Definitions, opportunities and constraints. Agriculture, Ecosystems & Environment 211. https://www.researchgate.net/publication/278727373_Ecosystem-based_adaptation_for_smallholder_farmers_Definitions_opportunities_and_constraints
- DELTARES, University Wageningen: **Resilient City Toolbox**: https://crctool.org/en/about/ (supported by: Asian Development Bank), background info about the planning tool: https://publicwiki.deltares.nl/display/AST/AST2.0+Documentation ex. for optional layers: green benefits https://publicwiki.deltares.nl/display/AST/Green+benefits
- **Natural Capital Protocol Toolkit,** developed by World Business Council for Sustainable Development, WBCSD (tools, methodologies and approaches available for natural capital measurement and valuation) https://capitalscoalition.org/impact/?fwp_filter_tabs=publication
- Capitals Coalition and Cambridge Conservation Initiative. (2020): **"Integrating biodiversity into natural capital assessments".** (Online) Available at: www.capitalscoalition.org

Knowledge products of the GIZ project „Mainstreaming EbA"

- GIZ (2017): **Making EbA Effective: A Framework for Defining Qualification Criteria and Quality Standards** (ENG,ESP,FR) This Technical Paper provides a practical assessment framework for designing, implementing and monitoring EbA measures by proposing a set of 3 elements, 5 qualification criteria and 20 quality standards with example indicators (GIZ, IUCN, IIED, FEBA). https://www.iucn.org/sites/dev/files/feba_eba_qualification_and_quality_criteria_final_en.pdf
- GIZ (2017): **Four Learning Briefs from EbA Community of practice Workshop** (ENG) Showcasing experiences from practitioners on entry points for mainstreaming EbA, how to generate evidence and finance EbA, and on monitoring and evaluation systems. https://www.adaptationcommunity.net/publications/?topic=ecosystem-based-adaptation
- GIZ (2018): **Climate Risk Assessments – Supplement for EbA measures** (ENG,ESP). A guidebook for planners and practitioners, providing a standardized approach to assess risks within social-ecological systems based on two application examples (river basin and coastal zone management). It helps to improve adaptation planning by considering holistic 'adaptation packages' including EbA. (GIZ, EURAC & UNU). https://www.adaptationcommunity.net/wp-content/uploads/2018/06/giz-eurac-unu-2018-en-guidebook-climate-risk-asessment-eba.pdf
- GIZ (2017): **Solutions in Focus: EbA from Mountains to Oceans – How people adapt to climate change by using nature** (ENG). An illustration of the diversity of EbA in practice: 30 applied EbA measures (solutions) in a broad range of Report countries and ecosystems as inspiration for decision makers and project developers. https://www.adaptationcommunity.net/wp-content/uploads/2018/09/giz2018-en-panorama-EbA-solutions-in-focus_web.pdf
- GIZ (2019): **Voluntary guidelines for the design and effective implementation of ecosystem-based approaches** (ENG) The guidelines provide a flexible framework for planning and implementing ecosystem-based adaptation and disaster risk reduction initiatives (SCBD, UN Environment & GIZ). https://www.cbd.int/doc/publications/cbd-ts-93-en.pdf

NbS and green recovery

- **IPBES pandemics report** (2020): https://ipbes.net/pandemics
- IPBES guest article Prof. Settele (2020): **COVID-19 Stimulus measures must save lives, protect livelihoods and safeguard nature** https://ipbes.net/covid19stimulus
- McElwee et al. (2020): **Ensuring a post-COVID-19 economic agenda tackles global biodiversity loss:**

https://digitalcommons.library.umaine.edu/cgi/viewcontent.cgi?article=1055&context=c19_teach_doc

- OECD (2020): **Biodiversity and the economic response to COVID-19: Ensuring a green and resilient recovery**: https://read.oecd-ilibrary.org/view/?ref=136_136726-x5msnju6xg&title=Biodiversity-and-the-economic-response-to-COVID-19-Ensuring-a-green-and-resilient-recovery
- WRI (2020): **COVID-19 Response and recovery**: https://files.wri.org/s3fs-public/covid-19-response-and-recovery-joint-policy-recs-nov-9-en.pdf
- WHO (2020): **WHO Manifesto for a healthy recovery**: https://www.who.int/news-room/feature-stories/detail/who-manifesto-for-a-healthy-recovery-from-covid-19
- GEF (2020): **White paper on GEF COVID-19 response strategy:** https://www.thegef.org/council-meeting-documents/white-paper-gef-covid-19-response-strategy
- WWF: Nature Hires https://wwfeu.awsassets.panda.org/downloads/nature_hires_report_wwf_ilo.pdf

Mainstreaming NbS

- GIZ (2018)**: Entry Points for Mainstreaming Ecosystem-Based Adaptation** (ENG) A series of four case studies from South Africa, the Philippines, Peru and Mexico, which summarizes promising policy entry points and governance structures for EbA mainstreaming at policy and Manual practitioner's level.
  https://www.adaptationcommunity.net/publications/?topic=ecosystem-based-adaptation
- GIZ (2019): **Emerging lessons for mainstreaming Ecosystem-based Adaptation: Strategic entry points and processes** (ENG) This study highlights success factors and entry points for mainstreaming EbA based on 16 practical case studies from Mexico, Peru, South Africa, Philippines and Viet Nam.
  https://www.adaptationcommunity.net/wp-content/uploads/2019/04/giz2019-en-study_Emerging-lessons-for-EbA-mainstreaming_web.pdf

Governing NbS

- GIZ (2019): **Governance for EbA: Understanding the diversity of actors & quality of arrangements** (ENG) background information on key concepts on EbA governance for decision makers and practitioners, with 18 practical examples.
  https://www.adaptationcommunity.net/wp-content/uploads/2019/09/giz2019-en-eba-governance-study-low-res.pdf
- EUROCLIMA+ (2021): **Natural Resource Governance.** Emerging lessons on its catalyst role for effective NDC implementation in Latin America. GIZ.
- Bennett, N., Satterfield, T. (2018): **Environmental governance: Practical Framework to guide design, evaluation and analysis.** *Conservation Letters*.
  https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/conl.12600
- Blomquist, W. (2009): **Multi-level governance and natural resource management:** The challenges of complexity, diversity, and uncertainty. *Institutions and Sustainability*.
- Campese, J., B. Nakangu, M. Jones, A. Silverman, and J. Springer (2016): **The NRGF Assessment Guide**: Learning for Improved Natural Resource Governance – Gland, Switzerland: IUCN and CEESP
  https://www.iucn.org/sites/dev/files/content/documents/the_nrgf_assessment_guide_working_paper.pdf

Financing NbS

- GIZ (2019): **EbA and Insurance: Success, Challenges and Opportunities** (ENG) This research looks into opportunities to integrate Nature-based Solutions and insurance mechanisms. 11 case studies and examples help formulate recommendations for insurances, NGOs, academia, governments, donors and investors about climate risk financing and EbA (GIZ, Munich-Re, UC Santa Cruz, Social Impact Partners & The Nature Conservancy).
  https://www.adaptationcommunity.net/wp-content/uploads/2019/11/EbA_insurance_publication_2019_web.pdf
- GIZ (2018): **Finance options and instruments for Ecosystem-based Adaptation** (ENG) Overview of finance options and compilation of ten examples to inspire project developers and practitioners interested in exploring different ways to access resources and engagement models for EbA financing.
  https://www.adaptationcommunity.net/wp-content/uploads/2018/06/giz2018-en-eba-finance-guidebook-low-res.pdf
- GIZ (2017): **Valuing the Benefits, Costs and Impacts of EbA Measures** (ENG,ESP) This sourcebook helps to assist adaptation planners and decision-makers in building awareness, knowledge and capacity for valuing the costs, benefits and impacts of EbA It combines information on valuation theory and methods with 40 real-world examples, as well as, practical steps for commissioning, designing and implementing EbA valuation studies. https://www.adaptationcommunity.net/wp-content/uploads/2017/12/EbA-Valuations-Sb_en_online.pdf

Monitoring NbS

- GIZ (2020): **Guidebook for Monitoring and Evaluating EbA.**
  https://www.adaptationcommunity.net/publications/guidebook-for-monitoring-and-evaluating-eba/
- Wendling et al (2019): **Performance and Impact Monitoring of Nature-Based Solutions** https://unalab.eu/index.php/system/files/2020-02/d31-nbs-performance-and-impact-monitoring-report2020-02-17.pdf

Networks on NbS and EbA

Panorama Solutions https://panorama.solutions/en/portal/ecosystem-based-adaptation

Adaptation Community https://www.adaptationcommunity.net/

EU, Nature-based solutions portal: https://ec.europa.eu/info/research-and-innovation/research-area/environment/nature-based-solutions_en

Oppla (platform for natural capital, ecosystem-services and NBS): https://oppla.eu/

Climate-ADAPT (platform for climate change adaptation): www.climate-adapt.eea.europa.eu

CBD thematic website on biodiversity and climate change: https://www.cbd.int/climate/

IUCN webpages:

- Nature-based Solutions https://www.iucn.org/theme/nature-based-solutions
- Blue Solutions, ocean NbS http://bluesolutions.info
- NbS, Commission on Ecosystem Management https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions
- Protected and Conserved Areas as Natural Solutions https://www.iucn.org/commissions/world-commission-protected-areas/our-work/natural-solutions
- Ecosystem-based Disaster Risk Reduction (Eco-DRR) https://www.iucn.org/theme/ecosystem-management/our-work/environment-and-disasters
- UN Decade Ecosystem Restoration http://www.onebigrobot.com/IUCN/
    - Restoration tools, etc. http://www.onebigrobot.com/IUCN/iucn-restoration-tools

Annex I: Draft Agendas for the training

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
12.30-13.00	Check-In	Check-In	Check-In	Check-In	Check-In	Check-In
13:00-13:15	**M1: Introduction** Introducing Facilitators Words of Welcome Housekeeping Getting to know each other *(55min)*	Introduction	Introduction	Introduction	Introduction	Introduction
13:15-13:55		**13:15-13:55** **M3: NbS Positions** Inputs (*different representatives from government, civil society, science and private sector)* *(40 min)*	**13:15-13:55** **M5: NbS Governance** Input Governing NbS (IUCN Standard Criterion 5) *(40 min)*	**13:15-14:05** **M6: NbS Financing** Input Financing NbS (IUCN Standard Criterion 4) *(50min)*	**13:15-13:45** **M5: NbS Governance** Input Communicating NbS *(30min)*	**13:15 – 13:55** **M9: Conclusion and Reflection** Group work Formulation of key messages on NbS *(40 min)*
13:55-14:00	Pause (5 Minutes)					
14:00-14:45	**14:05 – 14:35** **M1: Introduction** Groupwork Reflection on individual experiences and positions *(30 min)*	**14:00-14:45** **M3: NbS Positions** Panel Discussion *(45 min)*	**14:00-14:45** **M10: Open Space** *(45 min)*	**14:10 – 14:45** **M4: NbS Mainstreaming** Input Mainstreaming NbS (IUCN Standard Criterion 8) *(35min)*	**13:50-14:20** **M7: NbS Monitoring** Input Monitoring, Evaluating (IUCN Standard Criterion **3**) (30min)	**14:00 – 14:45** **M9: Conclusion and Reflection** Presentation of key messages and discussion with decision-makers and advisors within the context of DC *(ca. 45 min)*
14:45-15:00	Pause (15 Minutes)					
15:00-16:00	**14:50 – 15:50** **M1: Introduction** Input Introduction to NbS Input IUCN Global Standard *(60 min)*	**15:00-16:00** **M2: Group Work Case Studies** IUCN NbS Standard Criteria 1 Challenge, 3 Biodiversity *(60 min)*	**15:00-16:00** **M2: Group Work Case Studies** IUCN NbS Standard Criterion 5 Governance *(60 min)*	**15:00-16:00** **M2: Group Work Case Studies** IUCN NbS Standard Criteria 4 Economically viable, 8 Mainstreaming *(60 min)*	**14:35 – 15:35** **M2: Group Work Case Studies** IUCN NbS Standard Criteria 1 and 3 Monitoring *(60 min)*	**15:00 – 16:00** **M9: Conclusions** Evaluation Wrap-Up by BfN, GIZ, KfW *(60 min)*
16:00-16:10	Pause (10 Minutes)					
16:10-16:45	**16:00 - 16:35** **M2: Group Work Case Studies** Introduction Presentation of Case studies Survey to form working groups *(35 min)*	**16:10-16:45** *Abstimmen über Open Space (5min)* **M8: Examples for NbS** Input NbS for Climate Change Mitigation: Forests as a natural solution to climate change: Financing REDD+ in South America (*30 min)*	**16:10-16:45** **M8: Examples for NbS** Input NbS for economic development: ABS-compliant value chains and bio trade in Cameroon *(35 min)*	**16:10-16:45** **M8: Examples for NbS** Input NbS for Climate Change Adaptation: The importance of coastal ecosystems for climate change adaptation	**15:45 – 16:45** **M2: Group Work Case Studies Summary** Lessons Learned Presentations and exchange in plenary *(60min)*	
16:45-17.00	Closing	Closing	Closing	Closing	Closing	

Session I	Session II	Session III	Session IV
08:00 – 09.15 (Moderators, GIZ) Arrival and digital on-boarding	09:00 – 09.15 (Moderators, GIZ) Arrival and digital on-boarding	09:00 – 09.15 (Moderators, GIZ) Arrival and digital on-boarding	09:00 – 09.15 (Moderators, GIZ) Arrival and digital on-boarding
09:15 – 09:30 (GIZ, SNRD) Welcome	09:15 – 09:30 (Moderators) Agenda of the day and announcements	09:15 – 09:30 (Moderators) Agenda of the day and announcements	09:15 – 09:30 (Moderators) Agenda of the day and announcements
09:30 – 09:45 (Moderators) Agenda and objectives of the training (10 min) Housekeeping rules (5 min)	09:30 – 10:00 Input: Mainstreaming NbS in sectors and beyond (20 min) Q&A (10 min)	09:25 – 09:50 Input: Governing NbS implementation (multi-stakeholder planning, IUCN governance matrix, institutional arrangements) (15 min) Q&A (10 min)	09:30 – 10:00 (Moderators) Summary of challenges and opportunities for NbS in the region (30 min)
09:45 – 10:25 (Moderators) Round of introduction (40 min)	10:00 – 11:00 Group work Case studies and NbS mainstreaming) (60 min)	09:50 -10:10 Group work (20 min)	10:00 – 11:00 (RARE, GIZ-SNRD, GIZ) Reflection and discussion: Exchange formats and tools for building a regional network and challenges and opportunities (60 min)
10:25 – 10:40 Break	11:00 – 11:15 Break	10:10 – 10:25 Break	11:00 – 11:15 Break
10:40 – 11:50 Input: Introduction to NbS - definition, history, key aspects, international frameworks (20 min) Q&A (15 min) Group work Individual experiences with NbS & discussion (35 min)	11:15 – 12:05 Discussion in plenary (50 min)	10:25– 10:50 Input: Financing NbS (financial mechanisms; opportunities and challenges) (15 min) Q&A (10 min)	11:15 – 12:25 Group work Prioritization of topics for further training and options for networking (30 min) Reflection in plenary (40min)
11:50 – 12:15 Input: The role of NbS for green and blue recovery (15 min) Q&A (10 min)		10:50 – 11: 55 Group work (65 min)	12:25 – 12:40 Online course evaluation (10 min)
12:15 – 12:55 (Case givers) Case study pitches (30 min) Survey for selecting project for group work next training day (10 min)		11:55 – 12:20 Input: Monitoring of EbA (tools and methodologies) (15 min) Q&A (10min)	
12:55 – 13:00 (Moderators) Closure and outlook	12:05 – 12:30 (Moderators) Homework 1: concrete example of an NbS in your sector Closure and outlook	12:20-12:30 (Moderators) Homework 2: challenges and opportunities Closure and outlook	12:40 – 13:00 (GIZ, SNRD) Closure
13:00 – end of training	13:00 – end of training	13:00 – end of training	13:00 – end of training