



Food and Agriculture  
Organization of the  
United Nations

In cooperation with



# Virtual Training on Unlocking the Potential of Nature-based Solutions for Climate Action and Green Recovery

**First Batch | 28-30 September 2021**

**Second Batch | 4-6 October 2021**



## Abbreviations

AMS	ASEAN Member States
ASEAN	Association of Southeast Asian Nations
ASEAN CRN	ASEAN Climate Resilience Network
AWGFCC	ASEAN Working Group on Forest and Climate Change
ATWGARD	ASEAN Technical Working Group on Agricultural Research and Development
AWG	ASEAN Working Group
CBD	Convention on Biological Diversity
CSLU	Climate Smart Land Use
CSR	Corporate Social Responsibility
EbA	Ecosystem-based adaptation
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
GBF	Global Biodiversity Framework
GIZ	Gesellschaft für Internationale Zusammenarbeit
IUCN	International Union for Conservation of Nature
M&E	Monitoring and Evaluation
NbS	Nature-based Solutions
NBSAP	National Biodiversity Strategies and Action Plan
NDCs	Nationally Determined Contributions
OCB	Office of Climate Change, Biodiversity and Environment
SDG	Sustainable Development Goals
UNCCD	Nations Convention to Combat Desertification
UNFCCC	United Nations Framework Convention on Climate Change

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## Overview of the training

The **Virtual Training on Unlocking the Potential of Nature-based Solutions (NbS) for Climate Action and Green Recovery** was offered as a part of a series of capacity building and knowledge exchange events under the Association of Southeast Asian Nations (ASEAN) Climate Resilience Network (CRN) for promoting climate-smart land use practices in ASEAN. Hosted by the ASEAN Secretariat, it aimed at enhancing capacities of key ASEAN stakeholders from the agriculture and forestry sectors to mainstream, finance and govern NbS.

More precisely, the training had the objectives to

- 1) strengthen the understanding of NbS in a view of emerging discussions around the topic and considering the ASEAN policy context;
- 2) provide a clearer picture of mainstreaming and financing of the concept into effective climate actions and green recovery in agriculture and forestry contexts; and
- 3) reflect on the potential of NbS in agriculture and forestry in AMS and reflect on mainstreaming and financing of the approach in attaining NDCs.

The event built on joint efforts of GIZ's projects **Climate Smart Land Use in ASEAN (CSLU)** and **Sector Programme Biodiversity on Land** as well as development partners in the regions, including **FAO, RECOFTC and ICRAF**; and was supported and facilitated by **adelphi**. Target groups of the course were government representatives working on forestry and agriculture of 10 ASEAN Member States nominated through the following ASEAN bodies and network: ASEAN Technical Working Group on Agricultural Research and Development (ATWGARD), ASEAN Working Group on Forest and Climate Change (AWGFCC), ASEAN Working Group on Social Forestry (AWGSF) and ASEAN Climate Resilience Network (ASEAN-CRN).

The training was conducted in two batches for three consecutive half-days on **28-30 September 2021** (batch 1) and **4-6 October 2021** (batch 2). Since the training was delivered virtually, it was adjusted in consideration of the learning environment of Microsoft Teams and applied interactive approaches such as group works, quizzes, as well as plenary discussions.

Six learning sessions built the basis of the training, they are:

- 1) Introduction to NbS;
- 2) NbS in ASEAN;
- 3) Mainstreaming Nbs;
- 4) Financing NbS;
- 5) Governing NbS implementation; and
- 6) Unlocking the potential of NbS in international context.

In addition to that, group work on NbS case studies from agriculture and forestry served to apply the learnings on mainstreaming and financing NbS to specific contexts and allow participants to reflect on their own experiences.

## Introduction to NbS

In the first session, Ms Kathrin Ludwig, Senior Advisor at adelphi, introduced participants to the concept of NbS. The module served to clarify the understand of the concept while elaborating the IUCN Global Standard for NbS. It also provided an overview of various NbS approaches that are relevant for agriculture and forestry sectors. The first look at the concept development and its role in international

policy context, including the Convention on Biological Diversity (CBD), United Nations Framework Convention on Climate Change (UNFCCC) and European Union (EU) strategies, gave the participants an idea of the importance and prominent role that NbS are and will be playing in the upcoming years.

## Summary of presentation

- The module introduced NbS as actions to protect, sustainably manage and restore natural or modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits. In that sense, NbS are not a new idea, but a new paradigm that is based on decades of experience with ecosystem-based approaches. The IUCN Global Standard for NbS (Fig.1) was developed in 2020 and offers a clear framework for design and implementation of NbS interventions. It encompasses eight principles to help design, implement and verify NbS actions, including, for example, the requirement for NbS to address societal challenges, be designed at scale, achieve a biodiversity net-gain and involve multiple stakeholders in the design and implementation.

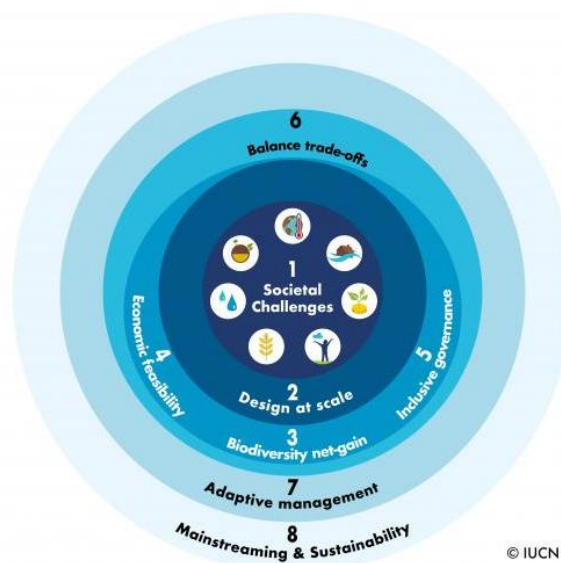


Figure 1: IUCN Global Standards on NbS (Sources: [IUCN, 2020](#))

- The concept of NbS is directly linked to that of ecosystem services, i.e. the benefits provided by ecosystems that contribute to human wellbeing; as well as natural capital, i.e. the elements of nature that directly or indirectly produce value to people, including ecosystems, species and freshwater.
- NbS are an umbrella term for a wide range of natural ecosystem-based approaches, many of them being particularly relevant for agriculture and forestry, such as forest landscape restoration (FLR), ecosystem-based adaptation (EbA) and ecosystem-based disaster risk reduction (Eco-DRR).
- While the concept has been developed over almost 15 years, a rapid uptake and dissemination can be observed since 2015, with crucial events and initiatives such as the 2016 World Conservation Congress and the Rio Conventions Pavilion pushing its prominence in international discussions and fora. The high political attention that NbS currently receive, e.g. in the discussions around NbS under the CBD and UNFCCC, has the potential to bring about transformational change in society's relationship with nature, while at the same time establishing a bridge between UNFCCC and CBD in their policies and actions.

## Questions and discussion

- **NbS versus the ecosystem approach:** NbS is an umbrella term and builds on the ecosystem approach. Although the difference between the two concepts is relatively small, the discussions highlighted one more time that while the ecosystem approach is the main framework used by the CBD and has a specific focus on biodiversity, NbS look beyond biodiversity conservation to address other societal challenges like food security, climate change, poverty alleviation, etc.
- **Identifying NbS in a specific context:** NbS is a new term and consequently there are insecurities with regards to the question on what can be considered an NbS. Through the discussion it became clear that for an intervention to be defined as a NbS, it has to address a societal challenge that needs to be defined together with the local stakeholders. In this sense, both the social and environmental interests need to be in balance when designing the solution.
- **Contribution to SDGs:** There are some analysis that looks into the positive contributions of NbS to the Sustainable Development Goals (SDGs), e.g. SDG 11 on sustainable cities, SDG 13 on climate actions, or SDG 15 on life on land

## NbS in ASEAN

The second presentation by representatives from the international consulting firm UNIQUE Forestry and Land Use GmbH focused on the state of NbS in the ASEAN region. It provided insights into the state of awareness of NbS in ASEAN countries and existing NbS climate actions. Key challenges and opportunities for mainstreaming and financing NbS in the region were identified and emerging discussions presented.

### Summary presentation

- NbS are key to achieve global environmental and development targets and have a high relevance for ASEAN climate-related targets including forest protection and restoration, climate-smart agriculture and agroforestry. Despite existing efforts from ASEAN Member States (AMS) to integrate NbS interventions in natural resource management policies and Nationally Determined Contributions (NDCs), there is still a huge gap between policy and implementation of NbS on the ground. This can be attributed to a persistent lack of understanding of NbS, limited technical capacity to design and implement the solutions, a lack of adequate financial resources as well as policy barriers. Intersectoral and transdisciplinary efforts, regional cooperation and the active participation of stakeholders are needed to mainstream the concept into policy and actions.
- Huge potential for implementing NbS sits within many ASEAN Working Groups (AWGs) focusing on agriculture and forestry sectors (ATWGARD, AWGFCC, AWGSF). For example, activities of the AWG on Social Forestry have the potential to manage forests sustainably and improve the well-being of communities living in or around the vicinity of forest areas. A wide range of NbS related actions have already been implemented in AMS, including mangrove restoration in Aceh and North Sumatra in Indonesia, where more than 17 million seedlings of mangrove were planted that sustainably contributed to improved livelihoods of the local community as well as disaster reduction. Adequate funding design schemes, viable NbS business models, increased awareness and a sophisticated knowledge base are required for further successful implementation of NbS.

- Drawing synergies between NbS and COVID-19 recovery plans (e.g. green fiscal measures, green jobs, decarbonisation pathways) in ASEAN provides opportunities to secure funding to “build back better” while promoting climate actions. Integrating NbS in recovery plans can help reducing biodiversity loss, strengthening climate resilience and aligning with net-zero GHG emissions. Questions and discussion
- **Assessing NbS:** Discussions evolved around the existence of an institution for assessing whether an initiative qualifies as an NbS. At the moment, there is no institution with such a mandate and there is no intention either to make the IUCN framework a standard theme.

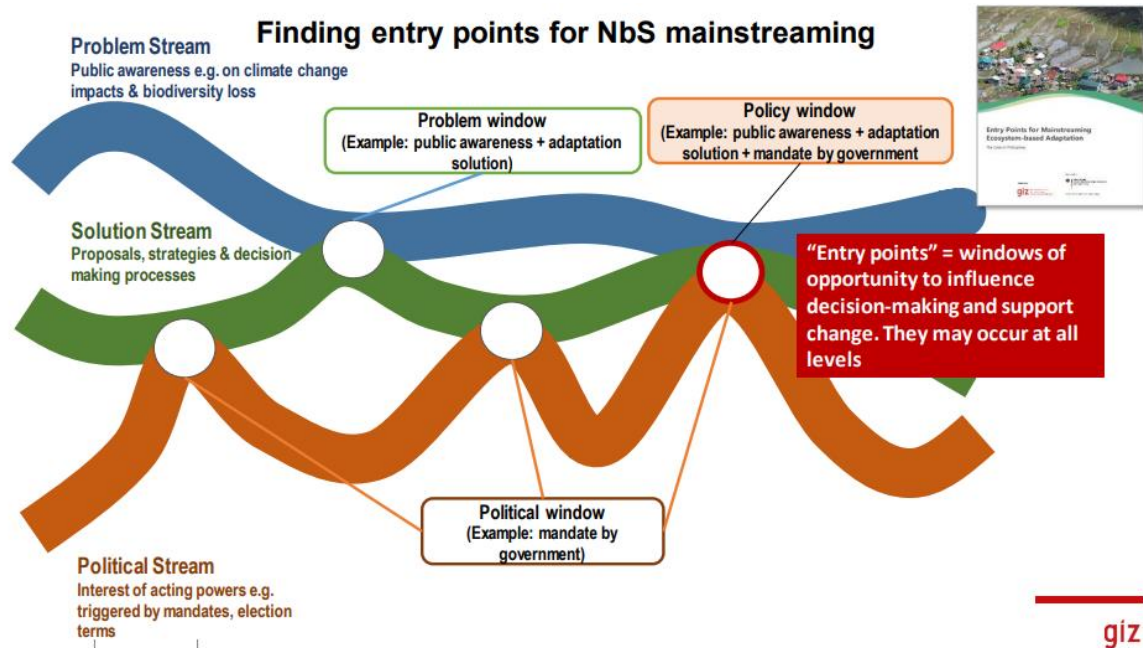
## Mainstreaming NbS

In the session about mainstreaming NbS, Mr Mathias Bertram, advisor at BioFrame, GIZ, stretched the importance of the “whole of society approach” in mainstreaming NbS and showed how this is best done by giving practical examples from Southeast Asia and Latin America region.

### Summary of presentation

- Mainstreaming NbS describes the systematic integration of the concept into sectoral (i.e. finance, agriculture, fisheries, forestry etc.) and cross-sectoral (sustainable development, poverty reduction, climate change adaptation/ mitigation) policies, strategies, programmes and practices. It aims for a “whole of society approach”, with clear safeguards and standards that support the process of mainstreaming while maintaining nature positive benefits, and always entails a longer-term institutional change process.
- Entry points for mainstreaming vary from context to context. The Multiple-Streams-Approach (Fig.2) is suitable to identify windows of opportunity that influence decision-making and support change. Such windows may occur when three individual streams meet: the problem stream (public awareness in society, e.g. about climate change impacts), solution stream (solutions to tackle the problem, e.g. proposals, strategies etc.) and political stream (interest of the acting powers, triggered by election terms or mandates). To create windows of opportunity at various governance levels, it is important to understand policy processes and institutional arrangements at all levels. governance levels, it is important to understand policy processes and institutional arrangements at all levels.





<sup>1</sup>Figure 2: Multi-Stream-Approach for identifying windows of opportunity  
(Adapted from GIZ, 2018)

- Despite a number of challenges for mainstreaming NbS (limited awareness and know-how of NbS, different terminologies and methodologies, unclear institutional mandates, limited inter-agency cooperation etc.), there are also opportunities for mainstreaming NbS, including the finance, investment and business sector (economic recovery, climate neutral economy, producers, insurance); spatial planning (Integrated Land Use Planning); cities and infrastructure (urban planning, green and blue spaces); and health (OneHealth approach, ecosystem conservation and restoration for pandemic prevention)

## Questions and discussion

- **Finding entry points:** discussions focused on the challenges in finding entry points for NbS in different political contexts. It became clear that time is a crucial factor in this regard, especially after elections, when government arrangements are changing and new approaches for tackling climate change and biodiversity appear.
- **Good leadership:** key requirements and best practices for successfully mainstreaming NbS into policy making processes were discussed. Oftentimes, highly fragmented institutional arrangements of countries increase the need for different approaches and strategies of different ministries. Therefore, effective leadership is crucial to ensure that the strategies are brought together and synergies are created.

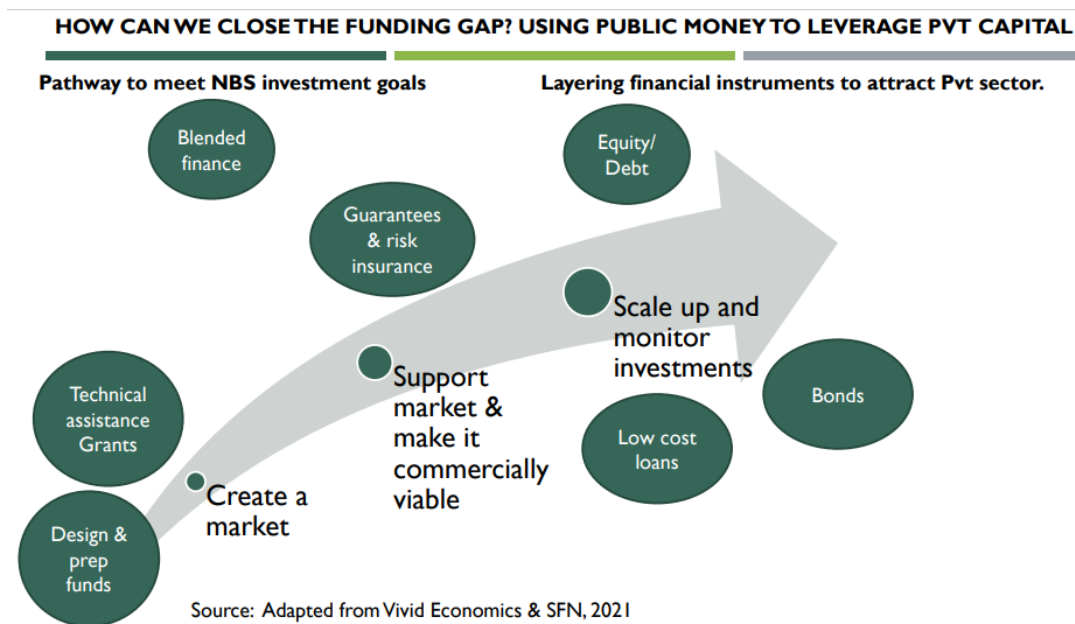
<sup>1</sup> GIZ (2018). Entry Points for Mainstreaming Ecosystem-based Adaptation. The Case of Mexico. Author: Alejandra Calzada Vázquez Vela, Thora Amend (ed). Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Bonn

## Financing NbS

In her presentation, Ms Manar Abdelmagied and Ms Neha Rai from the Office of Climate Change, Biodiversity and Environment (OCB) at the Food and Agriculture Organization of the United Nations (FAO), highlighted the existing NbS finance gap and presented a range of funding instruments for closing it.

### Summary of presentation

- Despite the scientific evidence for the significance of NbS to address climate problems, a huge gap between the annual investments into climate and NbS remains, with only 2% of global climate finance currently being spent on NbS. Another difference appears in the distribution between public and private finance. While the distribution is fairly equal for climate finance, NbS are mainly financed through public funds, primarily through grants. Both supply side (inadequate scale of finance) and demand side (limited absorptive capacity) challenges prevent a closure of the funding gap.
- NbS projects need financing at different stages and a range of funding instruments from different types of funders are required to crowd in different types of investors and scale up finance. Blended finance is an approach that uses catalytic public and philanthropic capital to change the risk and return profile of investment projects and thus increase private sector investment in sustainable development. Layering different types of instruments at different stages of projects could help close the funding gap (Fig.3).



*Figure 3: Funding instruments for financing NbS  
(Adapted from Vivid Economics and SFN, 2021)*

- Grant funding is helpful at the design or preparation stage to improve the viability and bankability of a project. At this stage, grants are used to support the proof of concept, establish a baseline and monitoring and verification system and develop a pipeline. Technical assistance grants are

used to build the technical capacity of investees and key stakeholders and help kick-start market models and an enabling environment for private investment in environmental goods. At a later stage, money is needed to guarantee that investors are protected against losses, which makes de-risking investments important. Risk guarantees and insurance also allow transactions to attract capital at more favourable rates. Ultimately, concessional finance is provided by public entities on more favourable terms to mobilize commercial capital and can improve the rate of return for investments. Debt or equity at below-market rates helps to lower the overall cost of capital and mobilize finance from more risk-averse investors.

## Questions and discussion

- **Certification schemes:** participants were interested in whether there are standards for NbS similar to the verified carbon standards in climate finance. While no such standard exists yet, IUCN is in the process of developing a collaborative certification scheme for NbS, which will be launched in 2022 and offers business entities to obtain a certification of their NbS intervention.
- **Mainstreaming finance:** discussions evolved around different avenues for mainstreaming NbS financing. At public sector level, national climate funds that are similar to blended finance and built on different sources offer an entry point for integration. In addition, mainstreaming NbS finance into existing National Adaptation Plans would be another avenue.

## Group work on the case studies from agriculture and forestry sectors

The group exercise comprised of in-depth group discussions on case studies from the agriculture and forestry sector as well as reflections on participants' own experiences with NbS mainstreaming and financing. Ms Regan Pairojmahakij, senior programme officer at RECOFTC, presented a forestry project in Bishnupur, a village and women-led Community Forestry User Group in Harion Municipality, Nepal. A number of societal challenges, including gender inequality, unequal access to water resources, poverty and reliance on cash crops; as well as ecological challenges, including deforestation and land-use change, climate change impacts such as flash floods and droughts, and invasive species threatening native species, were addressed by a wide range of implemented NbS interventions, such as tree planting, well boring and 1-km-long stet of riverbank. These measures improved the community's access to water, enhanced community cohesions and empowered women as climate adaptation leaders.

For more information on climate adaptation and mitigation aspects of the presented case, following publications apply very well to the rubric of Nature based Solutions:

[Linking Adaptation and Mitigation through Community Forestry: Case Studies from Asia](https://www.recoftc.org/publications/0000121)  
(<https://www.recoftc.org/publications/0000121>)

[Climate Change Vulnerability Assessment Report: Developing a Demonstration Site in Nepal on Community Forestry, Gender and Climate Change Adaptation](https://www.recoftc.org/publications/0000154)  
(<https://www.recoftc.org/publications/0000154>)

The case study on NbS in agriculture presented by Ms Elisabeth Simelton, climate scientist at ICRAF, was situated in the Ha Tinh province in central Viet Nam. Crucial challenges of the poor rural communities, namely their vulnerability to natural disasters, the long droughts and severe floods that result in low agricultural productivity, as well as the overconsumption of agricultural chemicals, were

addressed by a range of solutions such as agroforestry, contour planning of grass strips, conversion of paddy fields to aquaculture ponds with catch crops and agroclimatic information.

For more information on developing NbS in agricultural landscapes, kindly check the following joint publication by ICRAF, ICEM and FAO:

[NbS Framework for Agricultural Landscape](#)

(<https://www.frontiersin.org/articles/10.3389/fenvs.2021.678367/full>)

In separate groups divided by background of expertise, the participants had a chance to discuss the case studies and reflect on their own experience with NbS mainstreaming and financing, which produced the following aggregated main points to take into account when promoting NbS in land use sectors.

## Mainstreaming NbS

### Motivations of actors to show interest in NbS

- Climate change impacts like disasters, forest fires, flood, land slide
- National targets on forest cover
- Good health
- Improvements of ecosystems and biodiversity
- Political reasons (e.g. elections)
- Cost effectiveness of NbS/making an economic case
- Mitigation for future climate risks

### Opportunities for mainstreaming

- Integration of NbS into forestry/ agriculture and development policies; action plans and programmes; NDCs
- NGOs to help government to convince farmers to apply agro-forestry
- Cooperation with private sector
- Contribution to government indicators
- Farmer associations as a group are more powerful and have more leverage
- Consultations with local communities to identify needs

## Financing NbS

### Beneficiaries of NbS projects

- Local communities
- Indigenous people groups
- Farmers
- Local and national governments (achieving their targets)
- Private companies working in forestry and agriculture sector
- Companies wanting to claim investment opportunities for CSR
- Consumers (through improved product quality with minimum impact to the environment)

### Opportunities for scaling up NbS finance

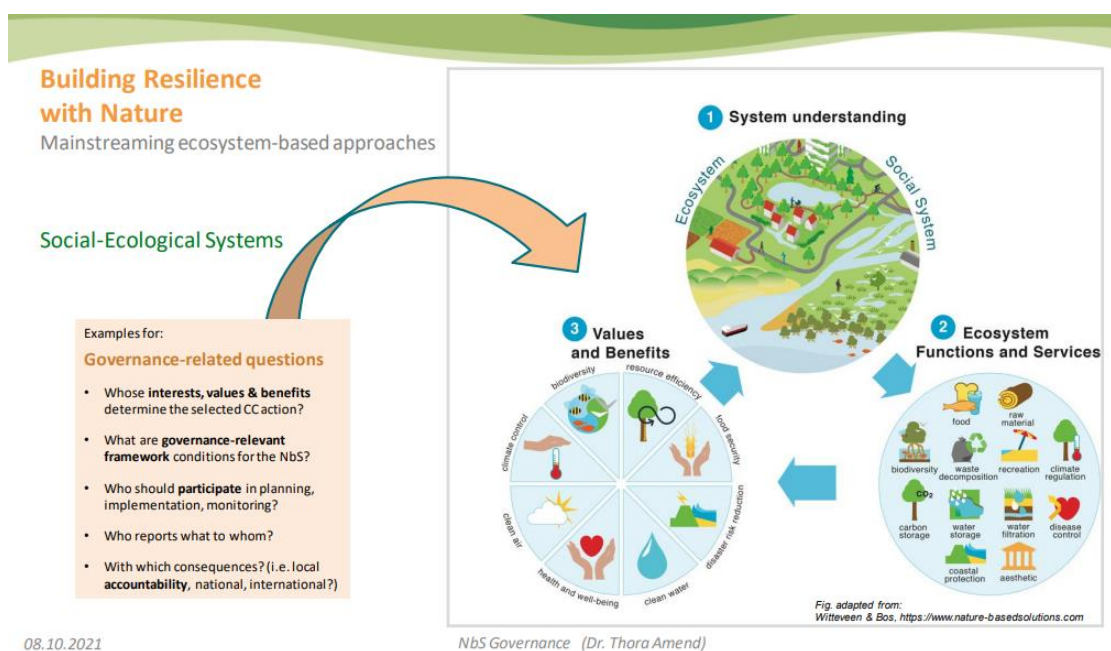
- Integration of farmer associations (receive funding for NbS, so they can continue to scale up the interventions)
- Community level: support for the establishment of farmer groups. Micro-finance and rotation fund
- Catalyst and information hub/ intermediaries to link finance to communities
- International support
- De-risking investments especially during the initial stage of any NbS project
- Guidelines for project investments on NbS
- Enabling appropriate delivery mechanisms and safeguards

## Governing NbS Implementation

In this session, participants learnt from Thora Amend, founder of “Conservation and Development” and member of IUCN’s steering committee for the World Commission on Protected Areas, about the principles of “good governance” in the context of NbS.

### Summary of presentation

- Governance is not synonymous to government, but rather describes the entirety of actors, institutions, structures and processes being part of the decision making, the distribution of responsibilities and exercise of power 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, including a wide range of actors from civil society, the state and private sector.



<sup>2</sup>Figure 4: Questions related to governing NbS implementation  
(Adapted from Witteveen and Bos, 2021)

- The IUCN government matrix for protected areas can serve as an inspiration for the governance and mainstreaming of NbS. It includes “governance by government” (e.g. by federal, national or regional governments), “shared governance/ external agents” (such as donors and implementing agencies), “private governance (e.g. individual landowners, non-profit organizations, universities) and “indigenous peoples and community governance”.
- Equity and fairness considerations are key for a successful implementation of NbS. The equity framework offers a more general orientation and consists of the three elements “recognition”, “procedure” and “distribution”. This includes recognizing different rights, values and needs; ensuring an inclusive process with the participation of all relevant actors; and distributing the costs and benefits between generations or regions. Ensuring gender equality and female empowerment in the governance of NbS is equally crucial in the process.

<sup>2</sup> Witteveen+Bos Raadgevende ingenieurs. [What are Nature-Based Solutions \(NBS\)? | Nature Based Solutions](#)

- Both top-down and bottom-up approaches contribute to NbS governance and the NDC processes. While the classical top-down approach usually starts with the international level and uses instruments such as NDCs or National Biodiversity Strategies and Action Plans (NBSAPs) to connect lower levels back to the international level, bottom-up approaches can be applied to govern NbS by involving municipalities and local government entities, local organizations and local communities or indigenous people.
- The NbS assessment framework of the EU considers challenge areas, indicators and methods for assessing NbS impacts. Additionally, a Guidebook for Monitoring and Evaluating EbA Interventions was developed by GIZ for planners and practitioners to better understand the outcomes and impacts of on-the-ground EbA projects. It describes key considerations and components for each step of M&E of EbA projects and points to additional tools and methodologies that can be used in specific circumstances.

### Questions and discussion

- **Role of governments:** participants expressed a need to further discuss the role of governments in governing NbS, especially in contexts with instable government constellations. While the involvement of governments in governing NbS implementation should not be doubted, it is rather a matter of defining clear roles and responsibilities for all stakeholders. Sanctioning mechanisms could be considered as an instrument for enforcement and compliance.
- **Intergenerational justice:** examples were discussed that demonstrate issues around intergenerational justice in the governance of NbS. While deforestation of mangroves provides immediate benefits to selected stakeholders, it leaves a long-term loss for future generations and deprives them of the possibility to derive the same benefits of the system. This is why intergenerational considerations are becoming increasingly important in international negotiations, including the CBD.

## Unlocking the Potential of NbS in International Context

In this session, the participants looked at the potential of NbS in international context. After providing an overview of current international negotiations and discussions around the concept under the UNFCCC and CBD, Mathias Bertram presented some of the key risks and opportunities for NbS.

### Summary of presentation

- The concept of NbS has been discussed and featured in several assemblies and conferences worldwide and a wide range of alliances and coalitions for climate and nature have been emerging over the past years, such as Leaders' Pledge for Nature and The High Ambition coalition for Nature and People.
- NDCs are the primary entry point for NbS into the discussions under the UNFCCC. While two thirds of NDCs refer to ecosystem-oriented measures, NbS in current NDCs generally do not include evidence-based targets. Further opportunities for NbS within official UNFCCC negotiations lie in the upcoming Conference of the Parties (COP 26) in November 2021 in the United Kingdom; the Paris Rulebook and the Nairobi Work Programme.
- Under the CBD, NbS and the restoration of ecosystems are becoming increasingly important, yet the terms are contested. NbS were originally discussed as "ecosystem-based approaches", which are an umbrella term for various ecosystem-based planning and management approaches. The term is often mixed up with the ecosystem approach, which is the primary

framework for action under the CBD and makes the term ecosystem-based approaches the preferred term by many members countries. Because of these developments, the current First Draft of the Post-2020 Global Biodiversity Framework (GBF) does not directly use the term NbS but includes several targets that indirectly refer to the concept.

- Because NbS bear the risk of being used as an offsetting option or to promote privatization of nature, it is important to ensure equitable and inclusive processes that are underpinned by rigorous and robust safeguards and standards that enable a fair sharing of benefits arising from NbS. NbS have the potential to link the goals of the Agenda 2030, UNFCCC, CBD and United Nations Convention to Combat Desertification (UNCCD), bring opportunities for multi-stakeholder implementation and thus represent an integrative, systemic and multidisciplinary approach to socio-environmental challenges in rural and urban areas.

## Questions and discussion

- **NbS in the GBF:** during the discussion, it was made clear once again that different parties have different interests and opinions with regards to the terminology used in the upcoming GBF. While some parties are focused on creating synergies with the climate agenda and push for the integration of the concept of NbS, others are cautious with adopting the term before clear definitions have been agreed. The moderators concluded that, while it is important to aim for an easily understandable terminology, it is equally important to focus on the implementation side and not lose too much time on discussions around the right wording.
- **Entry points for ASEAN region agriculture and forestry sector:** such opportunities involve co-management approaches, agroecosystems, the UN Decade on Restoration as well as the Bonn Challenge.



Figure 5 Batch 1 and 2 NbS Training participants

## Annex 1. List of Participants

### First Batch (28-30 September 2021)

No	Mr/Ms	Full Name	Country	Institutions
1	Ms	Duratul Ain binti Haji Durani	Brunei	Forestry Department
2	Ms	Dayang Miza Farzana binti Awang Ghani	Brunei	Forestry Department
3	Mr	Neab Keng	Cambodia	Forestry Administration
4	Ms	Rahmah Yustika	Indonesia	Indonesia Soil Research Institute
5	Ms	Fona Lengkana	Indonesia	Ministry of Environment and Forestry
6	Ms	Daovinh Souphonphacdy	Laos	Department of Climate Change, MONRE
7	Mr	Viengsavanh Phimpachanhvongsod	Laos	National Agriculture and Forestry Research Institute (NAFRI)
8	Mr	Xaypunya Mahathilath	Laos	NAFRI
9	Ms	Phonesanith Phonhanchith	Laos	NAFRI
10	Ms	Thongsavanh Norlakham	Laos	NAFRI
11	Mr	Khamla La	Laos	Department of Forestry, MONRE
12	Mr	Phonephanh Luangaphay	Laos	Department of Forestry, MONRE
13	Ms	Shilya Zulaikha Zamani	Malaysia	Forest Department
14	Ms	Nik Norafida Nek Ali	Malaysia	Forest Research Institute Malaysia
15	Dr/Ms	Thinn Thinn	Myanmar	Forest Department
16	Ms	May Myint	Myanmar	Forest Department
17	Mr	Jordan Raffi Sabalo	Philippines	Department of Agriculture
18	Mr	Richard Tabudlong	Philippines	Department of Agriculture
19	Mr	Artemio Vergara	Philippines	Department of Agriculture
20	Ms	Elise Gabrielle Egguera	Philippines	Forest Management Bureau
21	Mr	AJ Revilla	Philippines	Forest Management Bureau
22	Ms	Prattana Meesincharoen	Thailand	Royal Forest Department
23	Mr	Hassan Ibrahim	Singapore	National Parks Board
24	Mr	Jeremy Woon	Singapore	National Parks Board
25	Ms	Wendy Yap	Singapore	National Parks Board
26	Ms	Hazel Chew	Singapore	Singapore Food Agency
27	Mr	Tran Loc Thuy	Vietnam	Cuu Long Delta Rice Research Institute
28	Dr/Ms	Thi Huong Do	Vietnam	Sustainable Rural Development Center, Vietnam National University of Forestry



**Second Batch (4-6 October 2021)**

No	Mr/Ms	Full Name	Country	Institutions
1	Ms	Sothearen Thi	Cambodia	Forestry Administration
2	Ms	Im Maredi	Cambodia	Forestry Administration
3	Ms	Meas Chenda	Cambodia	Forestry Administration
4	Mr	Phab Phanna	Cambodia	Forestry Administration
5	Mr	Kim So Bon	Cambodia	Forestry Administration
6	Mr	Aditya Perdana Putra	Indonesia	Ministry of Environment and Forestry
7	Ms	Maritsa Zuchrufa	Indonesia	InDHHRA
8	Ms	Dameria Rosalia	Indonesia	InDHHRA
9	Ms	Nur Hidayah Abdullah	Malaysia	MARDI (Malaysian Agricultural Research & Development Institute)
10	Mr	Mohd Aziz Bin Rashid	Malaysia	MARDI
11	Dr/Ms	Huda Farhana Mohamad Muslim	Malaysia	Forest Research Institute Malaysia
12	Dr/Ms	Norliyana Adnan	Malaysia	Forest Research Institute Malaysia
13	Mr	Dawend Jiwan	Malaysia	Forest Department
14	Ms	Syazrah Hamidon	Malaysia	Ministry of Energy and Natural Resources
15	Ms	Jeralyn Morte	Philippines	Department of Agriculture
16	Ms	Regine Delmo	Philippines	Department of Agriculture
17	Mr	Lorenzo. L. Alvina	Philippines	Department of Agriculture
18	Mr	Edward Dumrique	Philippines	Forest Management Bureau
19	Ms	Lemuelle celis	Philippines	Forest Management Bureau
20	Mr	Affan Firmansyah	Philippines	AsiaDHRRA
21	Mr	Fairoz Mohamed	Singapore	National Parks Board
22	Ms	Lorraine Tan	Singapore	National Parks Board
23	Ms	Melissa Chua	Singapore	Singapore Food Agency
24	Dr/Ms	Margaret C. Yoovatana	Thailand	Department of Agriculture
25	Ms	Sumalee Pothong	Thailand	Field and Renewable Energy Crops Research Institute
26	Dr/Mr	Napat Sirisuntornlak	Thailand	Horticulture Research Institute
27	Mr	Linh Nguyen Tuan	Vietnam	IPSARD
28	Dr/Ms	Bui Thi Phuong Loan	Vietnam	Institute of Agriculture and Environment
29	Ms	Thu Kim Nguyen	Vietnam	Rice Research Institute

## Annex 2. List of Speakers

### Session 1: Introduction to NbS

- **Ms Kathrin Ludwig, Senior Advisor, adelphi**

Ms Kathrin Ludwig is Senior Advisor at adelphi, working at the nexus of climate and biodiversity policy. She has extensive experiences in the implementation and planning of international and national climate adaptation and biodiversity-related policies and processes and joins the project as senior adaptation expert. Kathrin is leading the horizontal level work stream, focused on deepening strategic and collaborative action to improve integrated urban resilience planning.

### Session 2: NbS in ASEAN

- **UNIQUE**

UNIQUE forestry and land use GmbH is a leading international consulting firm that provides expert services and advice on forest management and sustainable land use. The company strives for the development and implementation of intelligent and environmentally sound land use practices and policies that form the basis for sustainable rural development. Since its establishment in 1998, UNIQUE has gained extensive international experience, which has ensured a continuous exchange of knowledge and experiences. UNIQUE is currently assisting the Climate-smart Land Use in ASEAN project to support ASEAN Secretariat in preparing a preliminary study on the economic impacts of nature-based solutions in Southeast Asia.

### Examples from NbS in Agriculture and Forestry & Group Discussion

- **Ms Elisabeth Simelton, Climate Scientist at ICRAF**

Ms Elisabeth Simelton is a climate-change scientist at World Agroforestry (ICRAF), based in Hanoi since 2010 with over 25 years of experience from Southeast and East Asia. She holds a PhD in geography and BA in International Education from Gothenburg University, Sweden. Her research interests cover a wide range of issues related to sustainable development, particularly smallholder farmers' livelihoods and their adaptation strategies to climate change and natural disasters.

- **Ms Regan Pairojmahakij, Senior Program Officer: Landscapes Collaboration in a Changing Climate at RECOFTC**

Regan is Senior Program Officer at RECOFTC for Landscapes Collaboration in a Changing Climate. Her work focuses on developing a portfolio of landscape programs in RECOFTC's seven focal countries which establish a forest landscape based approach to achieving social and ecological outcomes at scale. Climate mitigation and resilience are the threads pulling together the landscape level work. These focus on opportunities for developing bankable Nature based Solutions, a community forestry based approach to climate change adaptation and the piloting of key indicators and landscape level monitoring approaches. Previously Regan has worked with WWF Greater Mekong program championing conservation in the Dawna Tenasserim transboundary landscape, with RECOFTC in various different roles includes as lead of a civil society network on REDD+ and with FAO as long-term consultant on regional forest policy. Current areas of interest include: landscape and habitat connectivity, forest landscape restoration, biodiversity management and conservation, market based livelihoods development yielding ecological benefits and strengthening ecological climate resilience.

- **Mr Ronnakorn Triraganon, Senior Strategic Advisor at RECOFTC**

Mr. Triraganon has been working in the community based natural resource management sector since the 1980s. He has extensive experience in promoting local people's knowledge and customary rights to ensure sustainable natural resource management and fair distribution of benefits through participatory approaches. With his professional background in appreciative inquiry for organization development, participatory processes, forestry extension, participatory and experiential learning, and community based climate change adaptation and mitigation, Mr. Triraganon is one of the most experienced facilitators in his subjects in the Asia and the Pacific region. He has built capacity of a number of community forestry practitioners at all levels of government and civil society from different parts of the world. His valuable working experiences have been integrated into RECOFTC's program and projects at all levels. He has vast experience developing diverse and innovative capacity development programs for community based natural resource management and integrated landscape management in several projects in South, Central, and Southeast Asia, Pacific, and Eastern Africa.

### Session 3: Mainstreaming NbS

### Session 6: Unlocking the Potential of NbS in International Context

- **Mr Mathias Bertram, Advisor at BioFrame, GIZ**

Mathias is an advisor in the Support Project for the Design and Implementation of the New Global Biodiversity Framework (BioFrame 2020), implemented by GIZ. With a background in International Forest Management, Mathias has worked for the last 14 years on nature-based solutions for climate change and disaster risk reduction, biodiversity conservation and natural resources management with a focus on South-East Asia and Latin America.

### Session 4: Financing NbS

- **Ms Manar Abdelmagied, Climate Change Specialist, FAO**

Ms Manar Abdelmagied is a climate change specialist. She focuses on integrating climate and nature-loss risks into food and agriculture policies and strategies, as well as working to enhance the enabling environment for the adoption of nature-based solutions by food producers. Manar has worked with the FAO, the UNEP in South and North Darfur Sudan, IGAD's Conflict Early Warning Early Response Mechanism and GIZ in Addis Ababa Ethiopia, and the Rift Valley Institute in London, UK.

- **Ms Neha Rai, Climate Change and Private Sector Specialist, FAO**

Ms Neha Rai is a climate change and private sector specialist at UN-FAO with more than 15 years of experience working in adaptation planning, climate finance, and policy. She is currently working with FAO, based in Rome, focusing on private sector engagement in implementing national climate plans (NDCs). Neha has previously working as a Senior Researcher at IIED in the UK for the last 8 years on climate finance and M&E.

### Module 5: Governing NbS Implementation

- **Dr Thora Amend, Founder of „Conservation & Development“ and Member of IUCN's Steering Committee for the World Commission on Protected Areas**

Dr Thora Amend is a strategic advisor to the Euroclima+ program and Vice-chair governance of IUCN commission on protected and conserved areas. Thora Amend is a trained ethnologist, geographer and linguist, with several decades of experience in integrated conservation and development approaches, with a focus on management and governance aspects, concept development, training and communication. She has worked for German development cooperation (GIZ and others) at local scales and systems level.