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# Exploring the Potential of Nature-based Solutions for Sustainable Development

Swiss thematic event of the CC&E and Water Networks of SDC,  
21<sup>st</sup> November 2019

Summary from the break-out group discussions



## 1. Background

Everyone seems to be talking about Nature-based Solutions (NBS) these days. A silver bullet for fostering sustainable development and to tackle pressing global challenges – or rather (another) passing hype with limited practical potential for development cooperation?

This year's Swiss thematic network event jointly organized by the Global Programme Climate Change and Environment (GPCCE) and the Global Programme Water (GPW) of the Swiss Agency for Development and Cooperation (SDC) provided a floor for discussing and learning more about the topic of 'Nature-based Solutions for Sustainable Development' - and sounding the true potential of this new kid on the block from a perspective of climate change, environment and water.

The thematic event of SDC's CC&E and Water Networks took place on November 21<sup>st</sup>, 2019 at the Berner Bildungszentrum Pflege in Bern and aimed to embark on a joint learning journey and to foster a shared understanding of the development relevance and potential of the NBS concepts. The presentations can be found on the websites of the CC&E Network (<https://www.shareweb.ch/site/Climate-Change-and-Environment/network-services/events>) and the Water Network (<https://www.shareweb.ch/site/Water/reseau-resources/documents>).

## 2. Key messages from the break-out session on project deep dive

### Learning watersheds in Ethiopia – solving the degradation problem

Isabelle Providoli, CDE

Severe natural resource degradation is a key problem in the Blue Nile Basin. The six watersheds chosen for the project face a number of problems due to inappropriate resource management (overgrazing, deforestation) such as erosion, low soil productivity, low vegetation cover and competition between food and feed production.

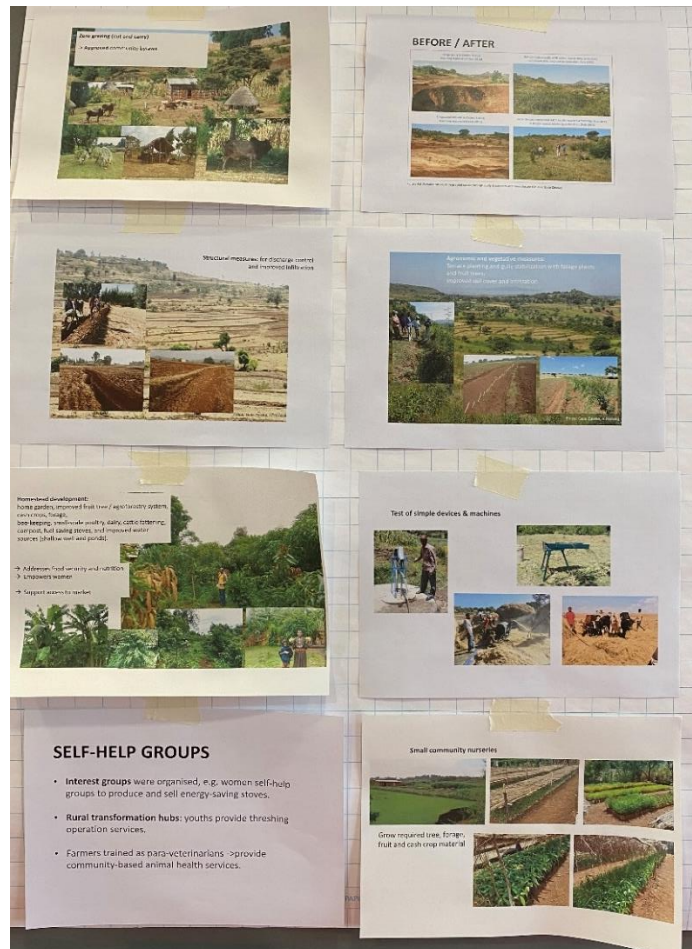
Learning watersheds is an approach for participatory integrated water and land resources management and livelihood. It is considered as a learning site/platform for implementing integrated watershed management interventions. In the watersheds, several measures have been implemented putting livelihoods/diversifying livelihoods at the centre while ensuring healthy ecosystems. Examples are zero grazing zones, structural measures (from improved infiltration), vegetative measures (terrace planting with forage plants), homestead development (home garden, bee keeping) etc. The approach is a 'classic' integrated watershed management approach, but with emphasis on a solid science base (baseline survey), joint learning (e.g. through farmer-research extension groups) and multi-stakeholder involvement (land users, local community organizations, extensionists, researchers and policy makers).

In the discussion, the topic was opened addressing generic aspects of NBS solutions:

- **Conceptual understanding of NBS:** The concept is seen as broad, as a bridgebuilder, not focusing on one particular benefit, but addressing multiple benefits. It is nothing fancy, it is good solid natural resource management. The fact that there are different entry points and definitions (e.g. conservation, Eco-DRR, Ecosystem based adaptation) is not seen as a problem. The fundamental basis is the same.
- **Not a silver bullet:** There are diversified NBS options in different contexts. Even if NBS offer multiple benefits, they do not necessarily address multiple challenges. They must be properly chosen according to their primary benefit.
- **NBS and climate change mitigation and adaptation:** NBS and CCM/CCA solutions are often very much interlinked. The entry point via CCM/CCA might be appropriate to jointly address other targets as there is a strong momentum for climate action. But not all NBS are climate friendly by nature (e.g. some species are less suitable for carbon storage than others).

- **Accelerating NBS:** Apart from generic preconditions (e.g. solid governance, knowledge base, capacity building etc.) it is important to transmit the benefits of NBS solutions. Linking them with livelihoods, marrying ecology and economy and formulating simple messages might be avenues to do so.

**Figure 1 Impressions on learning watersheds in Ethiopia**



Source: Pictures provided by Isabelle Providoli, CDE.

## **MiParamo – mobilizing investments to preserve high Andes wetlands**

Erika Zarate, Good Stuff International

The Paramo, a water-rich high mountain Andean ecosystem is key to ensure water supply for millions of people downstream. Colombia holds 50% of the Andean Paramos. The Paramo de Santurban is in the North-East of Colombia and is one of the 37 Paramo ecosystems existing in the country. It covers 3 million hectares and is the main source of water to 25 million people. This fragile ecosystem is threatened due to climate change, big scale productive activities such as mining and agroindustry, and by smaller scale agriculture. The Alianza Biocuenca Water Fund was created in 2014 as a public-private initiative in order to ensure a financial flow that helps increase water security in the Santurban region. One of the concrete products of Alianza Biocuenca is MiParamo, a brand and a technical-financial mechanism that aims at protecting the green infrastructure provided by Santurban. The investment scheme has been locally developed and adapted to local conditions. The vehicle is funded by a private company (drinking water company) as well as international development money. Private money comes from a surplus on sold bottled waters coming from that region. The project shows the following innovative aspects:

- **Input based project, rather than results-based payment:** The interesting thing about the approach is, that no money flows back to the communities but only material input is being provided, e.g. in order to better store water for farming practices.
- **From a species conservation to a holistic ecosystem approach:** Interestingly, the approach focusses on preserving, restoring and sustainably supporting entire ecosystems and is not solely focusing on species. This is perceived as being the future of NBS.
- **Participatory approach:** The project incorporates a strong participatory approach, as each Voluntary Conservation Agreement is negotiated with communities individually and is based on mutual trust.

Challenges in implementing the MiParamo investment schemes are the following:

- **Scalability goes slow:** As the approach relies on a close one-to-one collaboration with the communities, upscaling is being improved, but is going slower than wished.
- **Monitoring and evaluation:** Measuring the impacts of the program seems challenging, but results will be very relevant for the wider NBS community as the project moves from a species to ecosystem approach.

**Figure 2: Impressions on MiParamo**



Source: Pictures provided by Erika Zarate, Good Stuff International.

## Meeting the degradation challenge in Tajikistan – letting the vegetation return

Boris Orłowski, Caritas

Rainfall-related disasters such as floods, debris flows and landslides are natural hazards to which Tajikistan is highly vulnerable. Since 2012, Caritas ([www.caritas.ch](http://www.caritas.ch)) is implementing a Swiss-funded Integrated Watershed Management initiative in Muminabad district. Here, inadequate land management practices in the past had resulted in increased water runoff and erosion that led to wide-spread degradation – which is a major issue not only in this region, but also in many other locations in Central Asia. Fostering sustainable land management (SLM) practices represents a viable strategy and can help to conserve the productive and protective properties of agricultural areas in hazard-prone areas. In addition to safeguarding the long-term productive potential of the natural resource, it enhances the resilience of rural communities to extreme weather events and thus directly contributes to socio-economic development.

It was interesting to learn that the change in the approach and uptake/acceptance of this NBS in the form of SLM only became possible after a negative experience with physical/grey infrastructure that has not been in the position to deliver the expected protective functions. Introducing SLM in Muminabad required a careful consideration of the full range of land management technologies and approaches, and a selection of the most appropriate elements for the upper (forest protection), middle (pasture management) and lower zone (improved agricultural practices) of the watershed. With the programme ending soon, the actual proof of concept – the sustainability of the application of SLM measures in the long run without any external support – is still to be provided.

**Conclusion of discussion:** For the promotion of sustainable land management approaches to work and to deliver their full potential, there is a need for a multi-stakeholder process and concurrently working at different levels. The successful example from Tajikistan further illustrates, that it is indispensable to ensure a high degree of community ownership and to find a good balance between immediate benefits for participating farmers and desired longer-term aggregated results at the level of the watershed. And finally: as is the case with many development interventions - the systemic change aimed at needs time and persistence.

**Figure 3: Project site**



Source: Picture provided by Boris Orlovsky, Caritas.

## **Sempre Viva – flower picker communities become first Globally Important Agricultural Heritage System in Brazil**

Judith Macchi, HEKS

The project puts local communities and their people at the centre. The ‘flower pickers’ maintain a traditional land use system based on subsistence farming including seasonal livestock movement and flower picking by women as a cash crop component. This has led to a rich cultural landscape.

The region called ‘Cerrado’ used to be a biodiversity hotspot and headwater area for three major rivers of Brazil. However, with temperature increase and other interferences, the biodiversity, river flow and CO<sub>2</sub> carbon sink capacity have dropped.

In order to ‘save’ this traditional land use system and its cultural landscape, FAO and HEKS have supported a process of international recognition and protection leading as a ‘Globally Important Agricultural Heritage System’(GIAHS) accompanied by a respective protocol jointly elaborated with the concerned communities. The following **challenges** with the GIAHS have been **identified**:

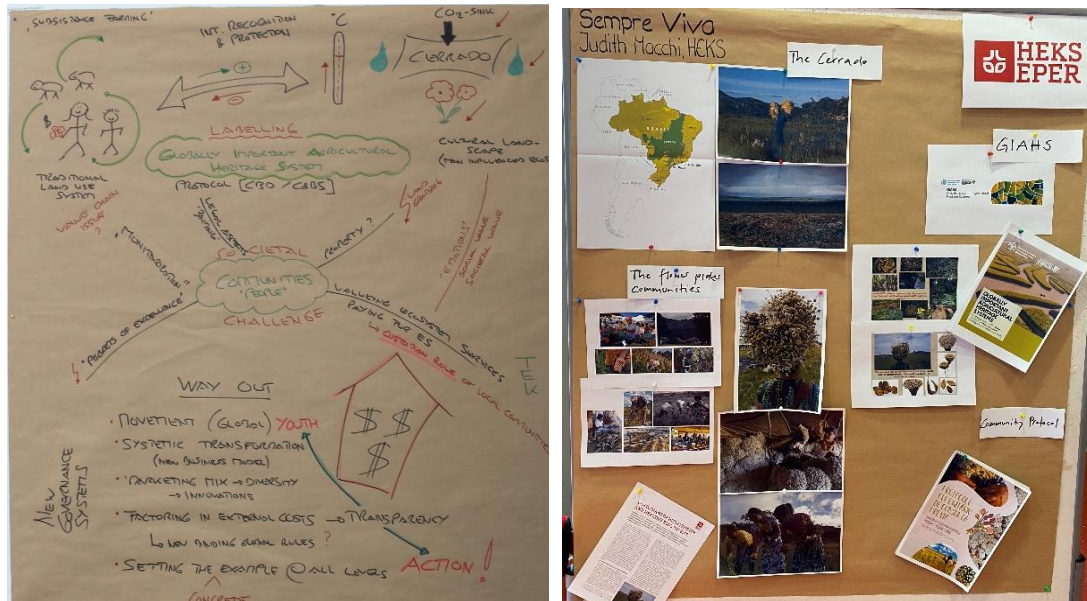
- A limited outreach due to the character of ‘limited pocket of excellence’ of the presented case study;
- The need to better monetarize the ecosystem service support provided through the traditional land use system as major (global) contribution (PES payment for ecosystem services);

- The importance to address land right and other legal issues to secure long term property of the land by the concerned communities in view of their key role as custodians of this GIAHS.

In view of securing and appropriately remunerating the communities caring for such a GIAHS, the following avenues could be explored:

- Support to a process of societal - in particular youth based – movements;
- Support to a process of transforming the current (extractive) business model;
- Support to a new ‘marketing mix’ where economic aspects are integrated;
- Promotion of new global economic rules with more transparency and factoring-in of external costs;
- Setting examples at all levels (including one’s own).

Figure 4: Summary of the discussion on the Sempre Viva



Source: Drawing by Daniel Maselli (SDC) and pictures by Judith Macchi (HEKS).

### 3. Key messages from the break-out session on financing and accelerating the uptake of Nature Based Solutions

#### Global Fund for Forests and Nature

Preeti Sinha, FFD Ventures

There is an enormous financing gap to preserve and restore ecosystems (250-350 billion USD per year, refer to presentation of Alexandra Frank, South Pole). Private capital has the potential to play a major role given that the total amount of private finance and private wealth far exceeds public finance (e.g. total ODA with 147 billion USD, capital market with 218 trillion USD).

FFD Ventures is building a coalition to launch a Global Fund for Forests and Nature as a large mobilization for increasing forests and green cover and combating climate change. The idea of the Fund is to combine different financing sources: public funds (grant based, e.g. for country studies), blended finance (public finance being used to mobilise other sources of funding), venture capital (for early stage forest enterprises), private finance (bonds and capital markets, e.g. carbon credit bonds, soil credits).

The discussion focused on avenues/elements to close the financing gap and to make NBS investable:

- Price on carbon is crucial, it provides a revenue, it is a tradeable unit, there is an offsetting market etc. which is often not the case for other benefits of NBS (most ecosystem services are not traded in markets).
- Starting with the easier things such as forests: forests are the best NBS to absorb carbon (large mitigation potential of reforestation) and with carbon credits, there is a tradeable unit and the market is more or less functioning.
- Scaling and bundling of NBS projects are needed to make them investable.
- Financing integrated approaches: Livelihood funds may be a solution for financing of integrated approaches, as they address environmental degradation, climate change and poverty simultaneously. Financial returns are result-based, e.g. in the form of carbon credits. Also, corporate funding may play a role here (shareholders usually value those investments in the context of corporate social responsibility).
- Financing risk reduction NBS: Insurances may play a role in risk prevention as investors (e.g. financial products such as cat bonds to finance conservation, restoration projects) and as providers of relevant expertise.
- Blended finance has for now a crucial role to play. The use of public funds to mobilize private capital results in positive results both for communities and investors as it improves the risk-return profile of investments.
- Better collaboration between different stakeholders, especially between financing and conservation people to better understand each other's requirements.
- The science needs to be more strongly involved in the design of finance instruments (verification of impacts must be science based).

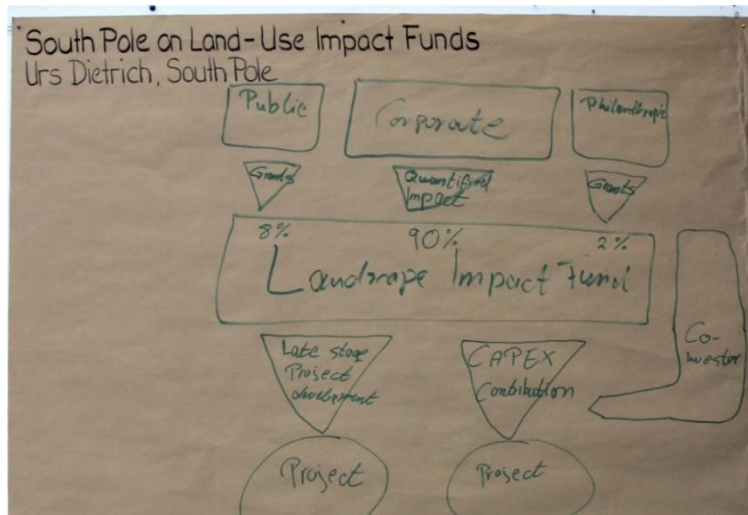
### **South Pole on Land-Use Impact Funds**

Urs Dieterich, South Pole

Urs Dieterich from South Pole discussed South Pole's approach in addressing investment barriers and accelerating change through impact funds that identify and invest in high-potential projects and businesses. Currently, South Pole is establishing an impact fund that will allow the private and public sectors to invest in high-impact projects, such as low-carbon agriculture and forestry projects with high conservation and social values. A revolving funding structure will enable transformative impacts. Background for establishing such kind of fund is that around USD 300bn are needed for NBS investment, which is not achievable without contributions from the private sector. The fund is characterized by the fact that there's no equity return to the private investor. The financial return cycles to the fund and then back to the projects. In return, investors receive quantified impacts such as carbon credits or environmental/social impacts (branded value impacts). The key challenge identified is, that there is a lack of enough good/bankable projects for upscaling such funds.

**Identified needs for upscaling:** Several needs in order to better upscale such kind of funds activities are being identified: Firstly, there is a need to massively reduce transaction costs. Secondly, hurdles for the environmental and social monitoring shall be lowered. The launch and improvement of standards could help doing so. Thirdly, early movers' projects should be better mobilized, and the technology boost shall be supported (such as e.g. blockchain technology for the MRV of quantified impacts).

Figure 5: Structure of the Land-Use Impact Fund



Source: Drawing by Urs Dieterich, South Pole

### Scaling up implementation of NBS

Radhika Murti, IUCN

IUCN is in the process of developing an NbS standard, consisting of 8 criteria and a process oriented facilitative standard. This is important as one size does not fit all and the solution is always within a local context. Therefore, processes can be standardised, not necessarily outcomes. There is concern and push back within the conservation community that NbS will have potential negative impacts on biodiversity instead of enhancing it. Biodiversity conservation is a core aspect of each NbS and this needs to be better communicated to ease concerns. Highly biodiverse ecosystems provide more robust and durable NbS, although the evidence base for this needs strengthening. And if a solution has negative impacts on biodiversity it cannot be considered as an NbS.

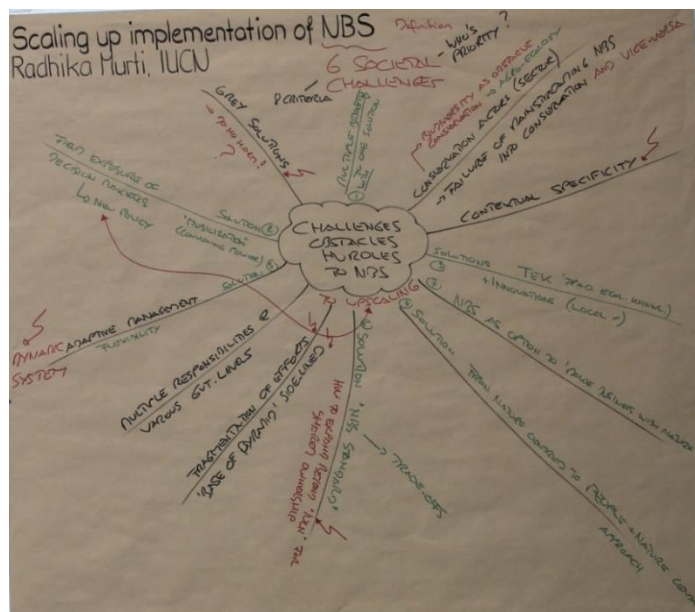
The following avenues to address these shortcomings for upscaling NBS were identified:

- Explain the multiple benefits of one single NBS;
- Bring decision makers to field exposure to make them understand what NBS means in concrete;
- Promote and value local knowledge and innovation (traditional ecological knowledge TEK);
- Shift from a nature centered to a people centered approach and understanding;
- Accept and promote adaptive management as part of the required flexibility;
- Promote the standard of NBS at all levels to achieve a common agreement;
- Sell / transform NBS as a (new) model to 'do fair but good business with nature'.

**Conclusion:** NBS have a great potential for sustainable solutions with a good cost effectiveness but need to be advocated by as many different actors as possible to compete with the 'grey infrastructure' lobby.



Figure 6: Summary of the discussion on scaling up implementation of NBS



Source: Drawing of Daniel Maselli, SDC.

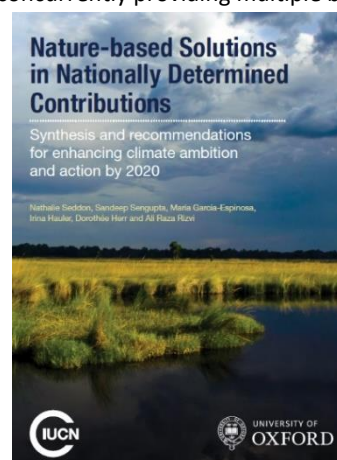
## Policy influence and relevance of upscaling NBS

Sandeep Sengupta, IUCN

On the basis of the findings of the recent report '[Nature-based Solutions in Nationally Determined Contributions – Synthesis and recommendations for enhancing climate ambition and action by 2020](#)' that IUCN has published together with the University of Oxford, it was illustrated how NBS have a vitally important role to play in addressing both the causes and the consequences of climate change. While the major part of the current Nationally Determined Contributions (NDCs) already include NBS in one way or the other, there is still a lot of scope for more concrete and robust targets to be set to make full use of their potential. The forthcoming second round of submission of NDCs which shall reflect a higher level of ambition towards a 1.5° C pathway and which are due in 2020 represent a unique opportunity to increase global ambition on climate change by strengthening the role of natural solutions.

The discussion touched upon issues such as the challenge of NBS concurrently providing multiple benefits and the risk of double counting, and whether the timing of issuing recommendations in the second half of 2019 for the submission of updated NDCs to take place in 2020 isn't too ambitious? The discussion also assessed how to reconcile bottom-up and top-down logics and how the link between the national and sub-national level can be fostered. And finally, there was a debate on the reason for China recently taking a leading role in NBS that probably also has to be seen in its geopolitical dimension, as this allows them to fill a gap that is left behind now that the US is out of the game.

**Conclusion of the discussion:** while the overall visibility of NBS has greatly improved, they still seem to be an often overlooked and forgotten solution when it comes to formalized climate ambition of countries in their respective NDCs. With all the evidence brought forward about their mitigation and adaptation potential, there are indeed chances that NBS will be reflected much more in the forthcoming commitments. However: Political intention is one thing, but the implementation thereof will then likely depend on applicable models (good practices) that have proved to work, and that can be shared widely.



## Programme

- 8:30-09:00 Registration with coffee and tea**
- 9:00-09:20 Welcome and introduction**
- Janine Kuriger, Head of Global Programme Climate Change and Environment, SDC
- 9:20-10:20 Setting the scene**
- Nature Based Solutions - a concept with many different approaches, James Dalton, IUCN
  - A perspective on the NBS journey, David Nabarro, 4SD
  - The Action Agenda for People and Nature, opportunities for growing the movement in 2020, Elise Buckle, SDG Lab, UN Office in Geneva
- 10:20-10:50 Coffee break**
- 10:50-12:10 Break-out session on project deep dive**
- **Learning watersheds in Ethiopia** - solving the degradation problem, Isabelle Providoli, CDE
  - **MiParamo** – mobilising investments to preserve high Andes wetlands, Erika Zarate, Good Stuff International
  - **Meeting the degradation challenge in Tajikistan** – letting the vegetation return, Boris Orlovsky, Caritas
  - **Sempre Viva** - flower picker communities become first Globally Important Agricultural Heritage System in Brazil, Judith Macchi, HEKS
- 12:10-12:30 Plenum on key learnings**
- 12:30-14:00 Lunch break**
- 14:00-14:30 Financing NBS and accelerating the uptake**
- Scoping the landscape of financing Nature Based Solutions, Alexandra Frank, South Pole
  - Meeting the challenges of upscaling NBS, Nina Saalismaa, ZOÏ Environment Network
- 14:30-16:50 Break-out sessions**
- **Financing Nature Based Solutions**  
Global Fund for Forests and Nature, Preeti Sinha, FFD Ventures
  - **Financing Nature Based Solution**  
South Pole on Land-Use Impact Funds, Urs Dieterich, South Pole
  - **How to accelerate the uptake of NBS?**  
Scaling up implementation of NBS, Radhika Murti, IUCN
  - **How to accelerate the uptake of NBS?**  
Policy influence and relevance of upscaling NBS, Sandeep Sengupta, IUCN
- 16:50-17:00 Closing**
- Johan Gély, Head of Global Programme Water, SDC

## Photos from the break-out sessions

**Figure 7: Group discussion on learning watersheds in Ethiopia, Isabelle Providoli (CDE)**



Rapporteur and facilitator: Myriam Steinemann, INFRAS  
Source: Photo by Daniel Maselli, SDC.

**Figure 8: Group discussion about MiParamo, Erika Zarate (Good Stuff International)**



Rapporteur and facilitator: Madeleine Guyer, INFRAS  
Source: Photo by Daniel Maselli, SDC.

**Figure 9: Group discussion on meeting the degradation challenge in Tajikistan, Boris Orlovsky (Caritas)**



Rapporteur and facilitator: Patrick Sieber, SDC  
Source: Photo by Daniel Maselli, SDC.

**Figure 10: Group discussion on Sempre Viva, Judith Macchi (HEKS)**



Rapporteur and facilitator: Daniel Maselli, SDC  
Source: Photo by Daniel Maselli, SDC.

**Figure 11: Groups discussion on Global Fund for Forests and Nature, Preeti Sinha (FFD Ventures)**



Rapporteur and facilitator: Myriam Steinemann, INFRAS  
Source: Photo by Daniel Maselli, SDC.

**Figure 12: Group discussion on South Pole's Land-Use Impact Funds, Urs Dieterich (South Pole)**



Rapporteur and facilitator: Madeleine Guyer, INFRAS  
Source: Daniel Maselli, SDC.

**Figure 13: Group discussion on scaling up implementation of NBS, Radhika Murti (IUCN)**



Rapporteur and facilitator: Daniel Maselli, SDC  
Source: Photo by Daniel Maselli, SDC.

**Figure 14: Group discussion on policy influence and relevance of upscaling NBS, Sandeep Sengupta (IUCN)**



Rapporteur and facilitator: Patrick Sieber, SDC  
Source: Photo by Daniel Maselli, SDC.