



Empowering Indigenous People and local communities with NbS

Key messages from NbS Digital Dialogues Panel 3

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[You can watch the recording of the session on YouTube from 18:00min](#)

SUMMARY

1. Address power dynamics: the locus of power must be shifted towards those who are at the forefront of the nature and climate crises. Community capacity-building is essential for NbS; it can be supported, but not driven, by external collaborators. Similarly, outsiders cannot 'empower' people, but they can provide environments and institutions which enable people to be empowered. It is the responsibility of NbS actors to confront breaches of social justice, and build long-term solidarity with communities.
2. Recognise broader context: understanding the context within which communities operate can enable the root cause of issues to be addressed, such as gender inequality or market-driven deforestation.
3. Ensure NbS are compatible with the ways of life of local people: NbS should improve people's quality of life, and respect existing cultures and knowledge systems, rather than providing biophysical benefits at social costs.
4. Build frameworks: we need models which enable NbS to truly act as a force for marginalized people, from local-scale implementation to identification of political and cultural barriers that need to be addressed. This must include increasing the diversity of voices in decision making processes.

INTRODUCTION

This session sought to provide actionable recommendations, through a diverse set of case studies (see below), on how to improve the experiences of people involved in NbS, in turn improving the overall effectiveness of NbS for nature and people.

NbS are being implemented across the globe, with every intervention taking place in a unique social and cultural context. NbS are implemented by people and for the benefit of people. However, if people's needs are not sufficiently included in NbS planning and implementation, then NbS can be unjust, ineffective and fail to provide multiple benefits for nature and society.

Power relations are central to understanding the roles and experiences of people within NbS. The actors invoked amidst the call for NbS occupy vastly different positions in power structures. For example, in many cases NbS links scientists in high income countries to the most vulnerable people in low-income countries, at high risk from climate change. Hence the use of a bottom-up dynamic is crucial for the success of NbS, in all communities, but the nuances of how this is carried out can 'make or break' an NbS; the structures that enable community-level rights and agency need to be in place without burdening those who have contributed least to global environmental crises.



CASE STUDIES

Indigenous and traditional management of the Amazon

Indigenous people and local communities (IPLCs) in the Amazon Basin support cross-scale mitigation and adaptation to climate change hazards and risks. The Indigenous Territories protect the most aboveground carbon and biomass per unit area of any land use in the Amazon, and have impeded deforestation and forest degradation and associated greenhouse gas emissions. Indigenous Territories combined with other types of protected areas represented 58% of carbon storage in the Amazon in 2016 (Walker et al. 2020). However, over 80% of protected areas in Brazil of high or moderate vulnerability to climate change are managed by indigenous populations (Lapola et al. 2018). Despite the importance of Indigenous Territories in the Amazon for climate change mitigation and provision of other ecosystem services at the local, national and global scale, these lands are threatened by national governance strategies and market dynamics. NbS have the potential to strengthen the dialogue, coordination and coherence among relevant stakeholders, enhancing action and support, including finance, technology and capacity-building, driven by Indigenous people's needs and aspirations.

Ecosystem restoration, China

The Chinese Ecosystem Research Network (CERN) is a three-decade long programme of national ecosystem monitoring, research and policy support. It has produced 56 restoration technologies, with 10 models being upscaled to cover 72 million hectares. This includes the Grain for Green Programme, which primarily involved the conversion of farmland to grassland, and shrubland to forest, with the principle aim of reducing soil erosion, although a major additional benefit was increased carbon storage (Deng et al. 2013; Song et al. 2014). This programme was originally implemented in 2002, involving 15 million households and 60 million farmers across China (Zhinyong 2003). Although restoration programmes have a top-down structure, experience has shown that meeting the needs of local people is critical for restoration success. For example, CERN also helps meet people's climate change adaptation needs, such as by enhancing seed systems, and aiding women's empowerment for agro-ecological practices. The Grain for Green Programme, meanwhile, provided payments for ecosystem services, and helped people find alternative livelihoods to reduce dependence on natural resources. CERN also enables scientists and NGOs to connect communities with the private and public sector, and help local knowledge be shared nationally. The lessons learnt over the last 30 years of ecosystem restoration will be applied to the 2021-35 Master Plan for Major National Projects to Protect and Restore Important Ecosystems, which was launched in June 2020.

Mangrove restoration, Cameroon

Large areas of mangroves in Cameroon have been lost, and continue to be threatened. This has already had numerous adverse consequences for local communities. For example, fishing yields have dropped, floods are occurring more frequently, agricultural production has dropped due to poor soils and salinity and temperature change. This has led to hunger, increased incidence of water-borne disease, and an increased feeling of insecurity for local people. Women have been disproportionately affected by mangrove loss, and so decided to restore mangrove forests. With the support of the African Women's Network for Community management of Forests (REFACOF) and its partner Cameroon Ecology, an advocacy campaign enabled women to gain land security over the degraded areas for restoration. Women of Lonji village have successfully improved their local mangroves, resulting in increased fish production and income. However, challenges remain, including ensuring tenure security for women and access to resources for mangrove restoration.

Sustainable wetland management in Bangladesh

Before the government intervened in 2003, Tanguar Haor freshwater wetland was overexploited by fisheries companies, and local people were excluded from receiving benefits. A 10-year project funded by the Swiss government was initiated in 2006, to bring together local people and other stakeholders for sustainable wetland management. However, the long-term sustainability of this project was thwarted by reliance on external engagement and lack of local capacity building. Nonetheless, without any project support over the last two years, the community leadership remains vibrant, with supportive political and administrative systems. Tanguar Haor's story shows that community empowerment to deliver effective NbS is possible, if awareness raising, capacity development, and incentive mechanisms work for individuals, households, and communities, complementing a functional, inclusive governance structure supported by policy and legal regimes.



KEY MESSAGES

Five points emerged from the session as necessary to put people and justice at the heart of NbS:

1. Rethink how the dominant narratives of how NbS relate to marginalised people.

- The session provoked a soul-searching discussion about power within the NbS community. Although scientists agree that NbS are most effectively carried out by communities, in practice, the rights of these communities have often not been respected.
- People working at all levels of NbS implementation must take questions of the distribution of power fully to heart.

2. Move away from a developmentalist, and sometimes paternalistic, strain of thought in which the lead NbS actor is implicitly assumed to be an outsider arriving with NbS as an intervention.

- For instance, in the Amazon, a long history of conservation initiatives have coerced Indigenous Peoples into narratives and efforts that do not benefit them or meet their needs. The historical ideology of conservation - a dichotomy of people and nature - has empowered outsiders and been to the detriment of nature's best defenders.
- Moreover the Bangladesh case shows the risks of the model of NbS as outside interventions, since short project cycles coupled with an unfavourable social environment mean outcomes can often fail to outlive projects themselves. For an NbS to be sustainable, community capacity must be built so that an intervention is not dependent on external support. Community capacity-building is a self-directed process that can be supported, but not driven, by external collaborators.

3. Move away from language suggesting that such outsiders will be the ones doing the empowerment to others.

- Empowerment involves the fulfilment of a person's potential and aspirations, which by definition requires confronting a prevailing set of power structures. It is crucial that institutions are altered to remove barriers to empowerment, and to make people able to fulfil

their own potential and aspirations.

- An example is a struggle for inheritance rights by women in Cameroon who are prevented from owning property and thus gaining meaningful benefits from investing time and labour in restoring an ecosystem. Giving women inheritance rights removed a barrier to empowerment.
- Another example is how communities living adjacent to a wetland in Bangladesh were denied access to the benefits of that ecosystem through a leasing system. Giving local people rights to benefit from the wetland removed a barrier to empowerment.
- Empowerment processes under climate change are often linked to the need for greater security. Strong institutions are required to ensure the benefits of NbS are felt by the people involved in their implementation.

4. Recognise the broader context in which communities operate.

- A major element of such broader context is the political-economic system of which a given community is a part. Such systems:
 - Often put already-vulnerable communities at greater risk from climate change and other threats.
 - Burden communities which have contributed the least to climate and nature crises with responsibility for mitigating and adapting to these threats. A recent example is the push for Natural Climate Solutions by the climate change action community, without awareness of the social (and ecological) risks and costs.
- An example of a broader context with great implications for NbS is gendered migration flows in China; women were left behind in the countryside as men moved to urban areas, and it was in this context that they worked together, supported by scientists, to initiate seed-saving schemes and regenerative agriculture.

5. NbS must genuinely act as a force for marginalized people

- This requires actors at all levels of NbS implementation to:

- Build long-term solidarity and trust with communities.
- Face any and all breaches of social justice, often requiring actors to step outside of their comfort zone
- Engage directly with the politics and governance structures that drive the marginalisation of communities, and the actual or latent degradation of NbS. This involves addressing deprivations of access and control, gender inequality, dispossession and rights abuses.
- An example is the situation in Cameroon faced by women restoring mangrove forests, whose marginalisation especially with regard to land rights undermines restoration attempts and prevents them from accessing the benefits of their work. It is not often considered in the purview of NbS to support calls for gender equality, but gender equality is key to ensuring that women are owners of NbS.

EMPOWERMENT IS A PROCESS

A model for creating an institutional framework as part of NbS action to support people's own empowerment processes. This model combines conclusions from sustainable wetland management in Tanguar Haor, Bangladesh, and the Grain for Green forest restoration programme in China.

1. For NbS to be just and have successful outcomes, individual people, households and communities must be at the centre of NbS planning and implementation. In order to unlock people's potential the following are required:

- Local people require:
 - Awareness of the current and potential role of ecosystems in their daily lives
 - Trust in partners and institutions, and belief that change is possible, particularly when often communities have experienced failed projects initiated by outsiders
 - Capacity building, in the form of knowledge and skills

- Incentives need to be in place, like access to resources and benefit-sharing mechanisms, as well as financial capital
- Inclusive decision making - there needs to be interaction between different stakeholders where fair decisions can be taken in transparent processes
- Policy and legal regime - to bind the above together

Building the above requires partnerships and sharing of resources between local and non-local actors.

2. Governments, scientists and the private sector can enable local people to be at the heart of NbS:

- Governments: policies and legislation to safeguard people's rights and facilitate their work, ensure tenure security, enable people to make investments in nature for the long term, and ensure decision-making platforms are fair
- Private sector: can be a key source of capital, as well as enabling access to markets with fair arrangements
- Researchers: make scientific knowledge readily accessible, and incorporate it with local knowledge to develop solutions that are resilient to environmental change
- NGOs: facilitate between actors, and provide financial and technical support

3. These kinds of collaborative arrangements can be facilitated through:

- Communicating with common language - identify when objectives align, avoid misunderstandings and enable negotiation and knowledge sharing
- Creating spaces for debate and forums for mediating conflicts when interests diverge
- Presenting clear information on and reasonable expectations of different actions, with regular updates

- Demonstrating the benefits of NbS along the way
- Demonstrations that the root causes of people's problems, such as tenure insecurity, are being addressed

AN AGENDA FOR TRANSFORMATIVE CHANGE

The following were suggested as crucial factors to enable successful, sustainable NbS:

1. Issues of power, politics, rights, livelihoods and equity must be at the forefront of NbS research.
2. NbS must be compatible with people's daily lives and respect their worldviews, cultures and knowledge systems. To this end, we must ensure that the success of NbS is measured by more than the biophysical characteristics and outcomes of an intervention (i.e. the benefits that a community gains from an NbS in terms of e.g. improved water quality). We must also embed NbS in their broader context, in particular we must ensure that NbS realise benefits for people's quality of life and enhance the security of their tenure rights and livelihoods.
3. The NbS community must build frameworks to achieve 1 and 2, for example by developing new models for partnerships and collaborations between indigenous communities and other NbS actors, which reject the status quo and support communities at greatest risk from environmental change.

We cannot afford to make the same mistakes as past green agendas. The separation of people and nature in language and practice has contributed to the exclusion and coercion of indigenous people and other marginalised groups. Too often, community and women's rights and aspirations have not been at the centre of the agenda. Therefore, work is needed to:

4. Ensure that NbS does not reinforce a perceived distinction between people and nature.
5. Build trust and long-standing commitments to solidarity in order to unleash people's innovative capacity,
6. Identify and overcome cultural and political barriers at different scales.

CONCLUSION

Scientists, practitioners and policymakers must work together to tilt the NbS playing field in favour of marginalised groups, who hold much potential and creativity to contribute to transformative NbS. There is currently a risk of repeating past mistakes, and allowing NbS to partake in coercion and exclusion of marginalised people. We must move away from reinforcing a locus of power in the international community at the expense of those at the forefront of the nature and climate crises. Equitable, effective NbS require a careful balance of interests and distribution of resources. To this end, the NbS community requires stronger representation of a greater diversity of voices, capable of speaking truth to power. With such changes, the transformative potential of NbS can be unlocked.

KEY REFERENCES

Deng, L., Liu, G. B., & Shangguan, Z. P. (2014). Land-use conversion and changing soil carbon stocks in China's 'Grain-for-Green' Program: a synthesis. *Global Change Biology*, 20(11), 3544-3556.

Fa, J. E. et al. (2019). Importance of Indigenous Peoples' lands for the conservation of Intact Forest Landscapes. *Frontiers in Ecology and the Environment*. <https://doi.org/10.1002/fee.2148>

Garnett, S. T. et al. (2018). A spatial overview of the global importance of Indigenous lands for conservation. *Nature Sustainability*, 1, 369. <https://doi.org/10.1038/s41893-018-0100-6>

Krasny, M. E., Russ, A., Tidball, K. G., & Elmqvist, T. (2014). Civic ecology practices: Participatory approaches to generating and measuring ecosystem services in cities. *Ecosystem Services*. <https://doi.org/10.1016/j.ecoser.2013.11.002>

Lapola DM, Pinho P, Quesada CA, Strassburg BBN, Rammig A, Kruijt B, Brown F, Ometto JPHB, Premebida A, Marengo JA, Vergara W, Nobre CA (2018) Limiting the high impacts of Amazon forest dieback with no-regrets science and policy action. *Proc Natl Acad Sci* 115:11671–11679. doi: 10.1073/pnas.1721770115

Pinho, P. F., Marengo, J. A., & Smith, M. S. (2015). Complex socio-ecological dynamics driven by extreme events in the Amazon. *Regional Environmental Change*. <https://doi.org/10.1007/s10113-014-0659-z>

Lavorel, S., Locatelli, B., Colloff, M. J., & Bruley, E. (2020). Co-producing ecosystem services for adapting to climate change. *Philosophical Transactions of the Royal Society B: Biological Sciences*. <https://doi.org/10.1098/rstb.2019.0119>

Roberts, D., Boon, R., Diederichs, N., Douwes, E., Govender, N., McInnes, A., ... Spires, M. (2012). Exploring ecosystem-based adaptation in Durban, South Africa: "learning-by-doing" at the local government coal face. *Environment and Urbanization*, 24(1), 167–195. <https://doi.org/10.1177/0956247811431412>

Song, X., Peng, C., Zhou, G., Jiang, H., & Wang, W. (2014). Chinese Grain for Green Program led to highly increased soil organic carbon levels: A meta-analysis. *Scientific reports*, 4, 4460.

Walker, W. S. et al. (2020). The role of forest conversion, degradation, and disturbance in the carbon dynamics of Amazon indigenous territories and protected areas. *Proceedings of the National Academy of Sciences*, 117, 3015–3025. <https://doi.org/10.1073/pnas.1913321117>

Westholm, L. 2016. Fruits from the forest and the fields: forest conservation policies and intersecting social inequalities in Burkina Faso's REDD+ program. *International Forestry Review* 18(4):511–521. <https://doi.org/10.1505/146554816820127578>

Zhiyong, L. 2003. A policy review on watershed protection and poverty alleviation by the Grain for Green Programme in China. *Fao*. <http://www.fao.org/3/ae537e/ae537e0j.htm#fn26>

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