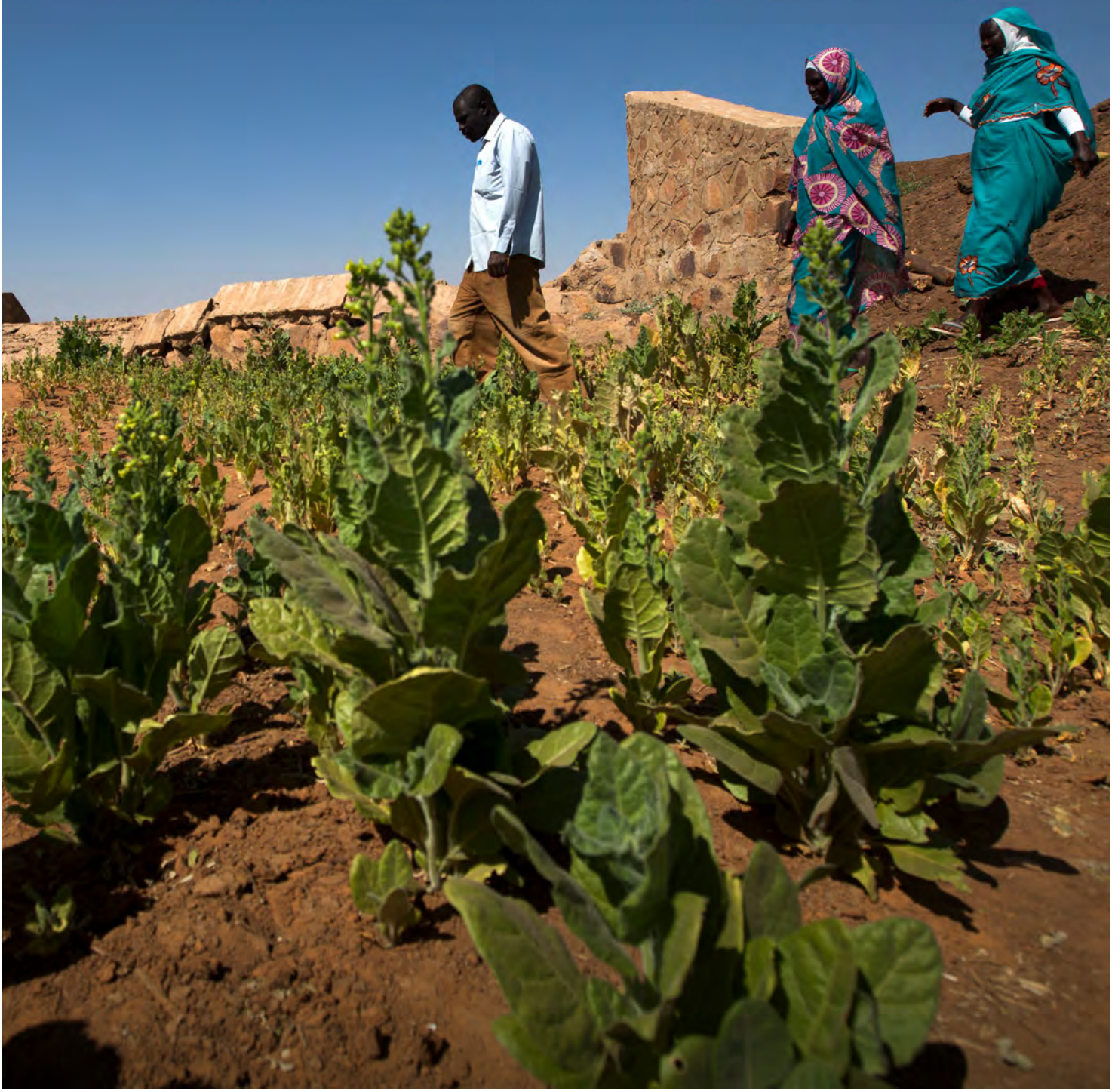
UN environment programme

Nature-based Solutions for Peace

Emerging practice and options for policymakers



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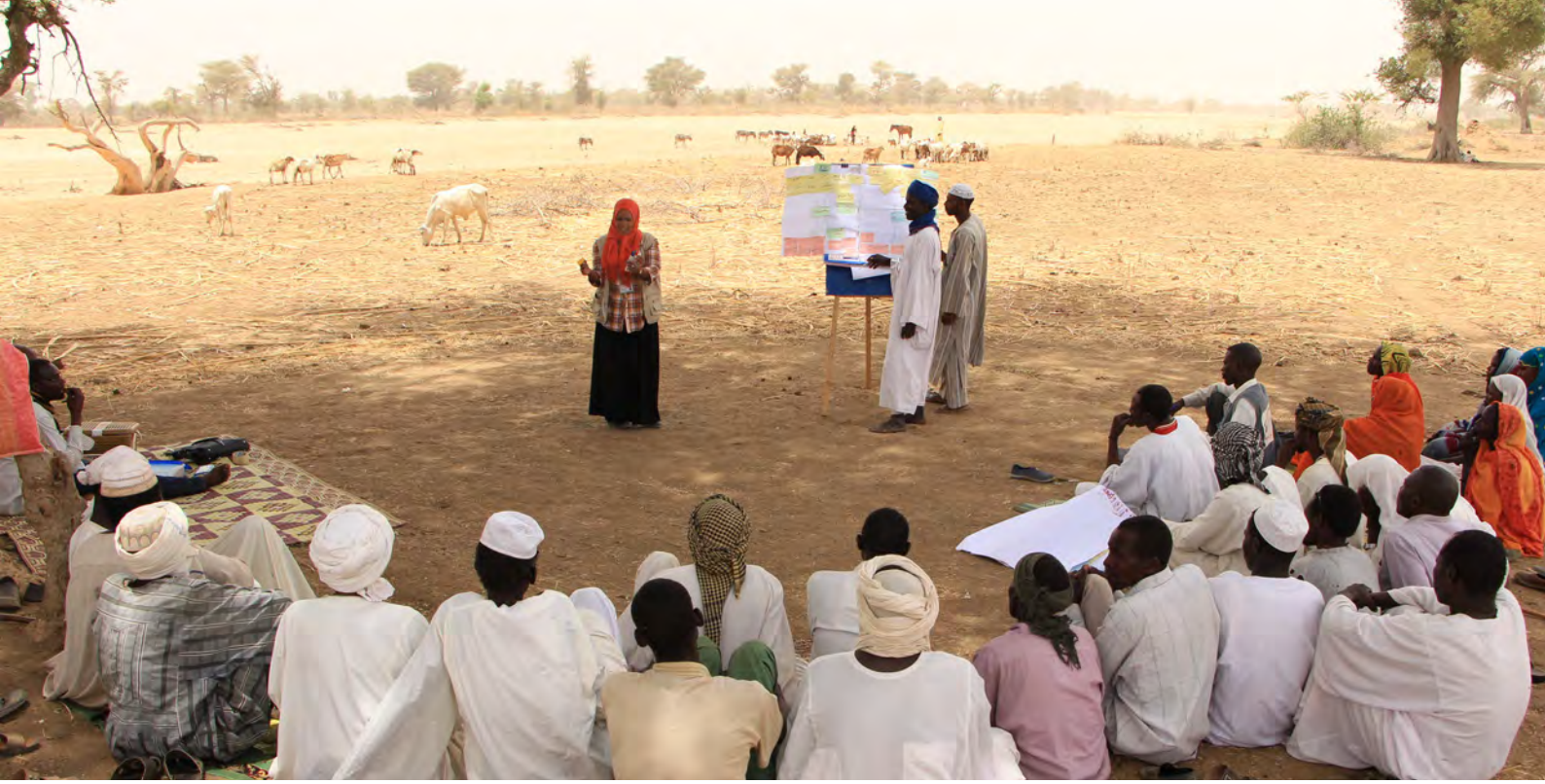


Community workshop in Sudan. © Dimah Gasim/UNEP

Introduction

Facing acute pressures from the combination of climate change, biodiversity loss, and pollution, policymakers around the world have been paying increasing attention to Nature-based Solutions (NbS) as part of their development and resilience-building strategies [1] [2]. NbS are characterized by actions to protect, conserve, restore, sustainably use and manage natural resources while simultaneously providing benefits for human well-being.[1] The UN Environment Programme (UNEP) has been a leader in this field, supporting a wide range of NbS programming worldwide. Responding to the growing use of NbS in a variety of settings, in 2022 the UN Environment Assembly (UNEA) called on UNEP to compile examples of best practice in the field.[2]

This policy brief responds to the growing interest in NbS across the globe, including in contexts affected by conflict, instability and crisis. Recognizing the wide range of positive outcomes that NbS can generate, this brief focuses on the specific link between NbS, conflict prevention, conflict resolution, and peacebuilding. Drawing on a compilation of 40 case studies (see Annex 1), a review of relevant scholarship and expert interviews, this brief examines how NbS approaches in fragile and conflict-affected settings have helped to reduce the risks of violent conflict or build more stable, resilient societies, and provides a set of emerging good practice in the field of "Nature-based Solutions for Peace."

This policy brief is designed to contribute to ongoing efforts to harness the potential of nature for resilience, peace and development within UN programming and beyond, as articulated at the Conference of Parties (COP) of the three Rio conventions on biological diversity, climate change and desertification held in 2024. Its core purpose is to highlight how NbS can and to contribute to peaceful outcomes, offering an analysis of the conditions and lessons that contribute to its effectiveness in a wide range of settings.

[1] This draws from the United Nations Environmental Assembly definition in UNEP/EA.5/Res 5, 2022. See also, Diaz, S., Demissew, S., Joly, C., Lonsdale, W. M. and Larigauderie, A. (2015). A Rosetta stone for nature's benefits to people. PLoS Biol, 13, e1002040. https://doi.org/10.1371/journal.pbio.1002040.
[2] See UNEA/EA.5/Res.5.

01 Nature-based Solutions, and Climate, Peace and Security

This section offers key definitions necessary to understanding the links between NbS, climate-related security risks, and peacebuilding. It provides a brief history of the origins and global acceptance of the term "Nature-based Solutions," and a sense of emerging practice in the field. It then covers the evolution of the field of "climate-security," including the growing empirical research demonstrating the links between environmental changes and the risks of violent conflict. It concludes that the two areas of scholarship and practice – one on NbS and the other on "climate-security" – have progressed largely in parallel, with limited policy-level efforts to bring them together. The subsequent exploration of case studies is meant to drive a policy-level discussion on the opportunities presented by NbS for addressing risks to peace and security.

Nature-based Solutions (NbS)

The foundation of NbS as a practice can be traced back to ecosystem management in the 1970s, and the field of ecological engineering in the 1980s. Early practice focused on the mutual benefit between ecological systems and human well-being that could be achieved through careful development planning. Drawing on this field, the term "nature-based solutions" was used by the World Bank in 2008 and formally introduced into international policy circles by IUCN in 2009, its use growing rapidly over the following decade.[3] Key international and regional bodies adopted NbS as a central aspect of their programming, including the European Union, the World Bank, the UNFCCC, the UN DRR, and the UN Development Programme [3] [4].[4]

UN Environment Assembly resolution 5/5 of March 2022 provided the first multilaterally agreed definition of NbS as "actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, costal and marine ecosystems which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services and biodiversity benefits."[5]

[3] For the origin of NbS, see Cohen-Shacham, E., Walters, G., Janzen, C., Maginnis, S. (eds) (2015). *Nature-based Solutions to Address Global Societal Challenges.* International Union for Conservation of Nature. See also European Commission (2016). *Towards an EU Research and Innovation Policy Agenda for Nature-based Solutions & Re-naturing Cities.* Horizon 2020. https://ec.europa.eu/programmes/horizon2020/en/news/towards-eu-research-and-innovation-policyagenda-nature-based-solutions-re-naturing-cities.

[4] See also MacKinnon, K., Sobrevila, C. and Hickey, V. (2018). *Biodiversity, Climate Change, and Adaptation: Nature-based Solutions From the World Bank Portfolio.* The World Bank; Seddon, N., Sengupta, S., García-Espinosa, M., Hauler, I., Herr, D., Rizvi, A. R. (2020). *Nature-based Solutions in Nationally Determined Contributions 62.*

[5] See UNEA Res. 5/5. For more scholarship on the definitions of NbS, see Balian, E., Eggermont, N. B. S. and Le Roux, X. (2014). *BiodivERsA: Workshop on Nature-based Solutions*. http://NbS.biodiversa.org/671; Keesstra, S. *et al.* (2018). The superior effect of nature-based solutions in land management for enhancing ecosystem services. *Sci Total Environ,* 610–611. https://doi.org/10.1016/j.scitotenv.2017.08.077.

Other definitions have focused on increasing the use of renewable natural processes in development programming,[6] and the creation of green infrastructure [5]. These overlap heavily with the Convention on Biological Diversity term "ecosystem-based adaptation," which refers to the use of biological systems to adapt to the adverse effects of climate change. However, most definitions of NbS focus more broadly on addressing environmental change (not just adapting to climate change) that takes the ecosystem as its starting point. Evolving alongside an ecosystem, rather than imposing external interventions on it, captures the core character of NbS.[7]

BOX 1: COMMONLY USED NATURE-BASED SOLUTIONS

While the definition is very broad, the most commonly used NbS include:

- REFORESTATION AND AFFORESTATION
- WETLAND RESTORATION
- GREEN INFRASTRUCTURE
- CORAL REEF REHABILITATION
- HABITAT PROTECTION
- RIPARIAN BUFFERS
- CLIMATE-SMART AGRICULTURE
- NATURAL COASTAL DEFENSES
- BIODIVERSITY CORRIDORS
- RAINWATER HARVESTING

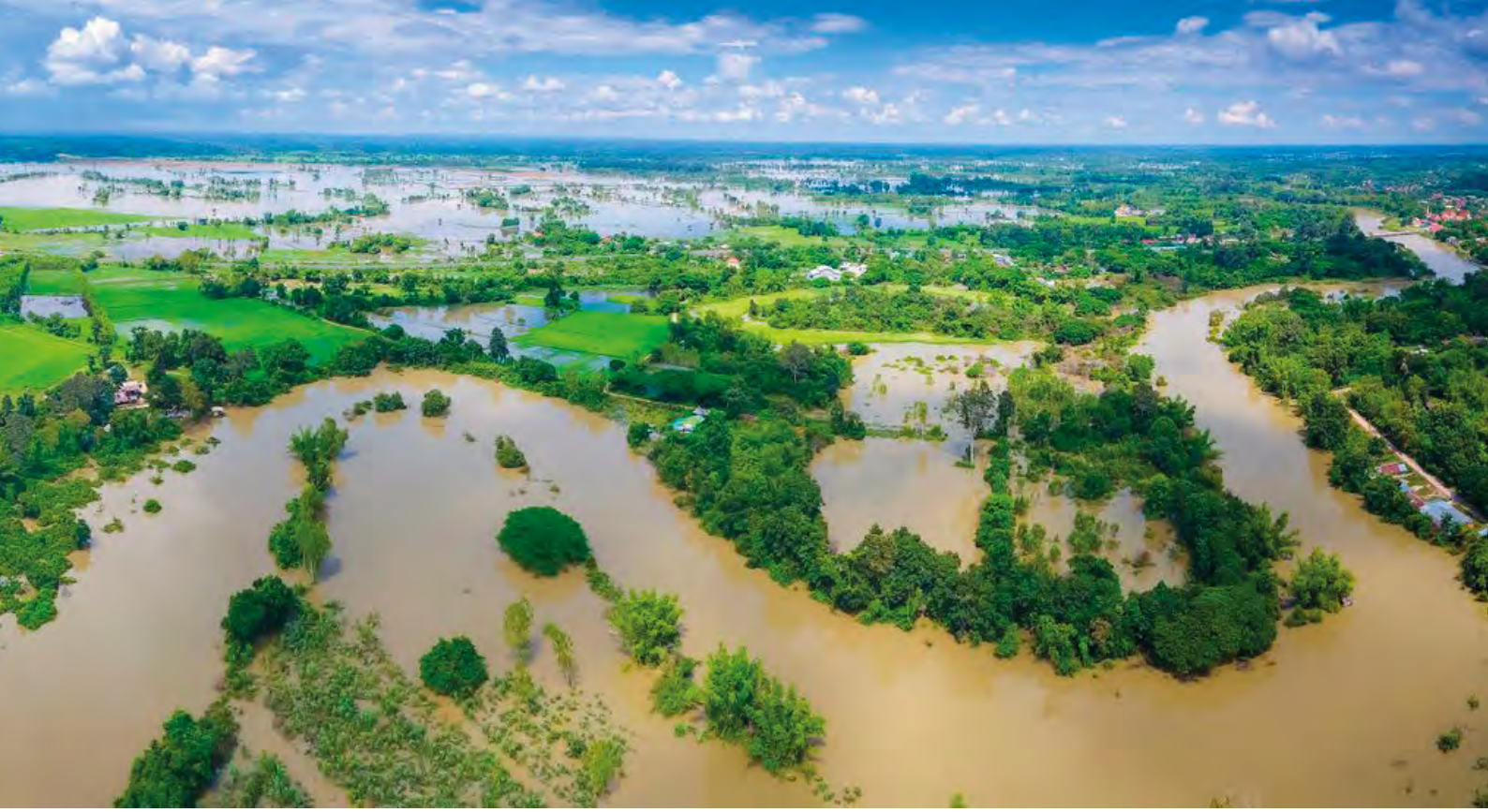
A growing body of research has demonstrated the effectiveness and efficiency of NbS in delivering impactful outcomes for communities and their surrounding environment. This has led to widespread adoption of NbS in climate action. More than 65% of parties of the Paris Agreement have included NbS as part of their efforts to reach their Nationally Determined Contributions, while more than 100 countries have pointed to specific NbS actions in their climate mitigation and adaptation efforts [6]. This growing practice has provided fertile ground for a rapidly growing science of NbS, including in the areas of forest restoration, landslide recovery, biodiversity conservation, and coastal and riverine protection.[8] In urban settings with extreme heat and flood risks, NbS are now central to governmental responses, including in terms of green cover, drought management, and city planning.[9] **BOX 1** provides an overview of the most commonly used NbS to date.

[6] See, e.g, Maes, J. and Jacobs, S. (2017). Nature-based solutions for Europe's sustainable development. *Conserv Lett*, 10, 121–124. https://doi.org/10.1111/conl.12216.

[7] See, Jones, H. P., Hole, D. G. and Zavaleta, E. S. (2012). Harnessing nature to help people adapt to climate change. *Nature Clim Change*, 2, 504–509. https://doi.org/10.1038/nclimate1463.

[8] See, e.g., Keesstra, S. *et al.* (2018). The superior effect of nature-based solutions in land management for enhancing ecosystem services. *Sci Total Environ*, 610–611, 997–1009. https://doi.org/10.1016/j.scitotenv.2017.08.077; Crouzeilles, R. *et al.* (2016). A global meta-analysis on the ecological drivers of forest restoration success. *Nat Commun,* 7, 1–8. https://doi.org/10.1038/ncomms11666; Lewis, S. L., Wheeler, C. E., Mitchard, E. T. A. and Koch, A. (2019). Restoring natural forests is the best way to remove atmospheric carbon. *Nature*, 568, 25–28. https://doi.org/10.1038/d41586-019-01026-8; Chazdon, R. L. and Guariguata, M. (2018). *Decision Support Tools for Forest Landscape Restoration: Current Status and Future Outlook;* Hamza, O. *et al.* (2007). Mechanics of root-pullout from soil: a novel image and stress analysis procedure. In: Stokes, A., Spanos, I., Norris, J. E. and Cammeraat, E. (eds) (2007). *Eco-and Ground Bio-engineering: The Use of Vegetation to Improve Slope Stability.* Springer Netherlands, Dordrecht. 213–221; Galderisi, A. and Treccozzi, E. (2007). Green strategies for flood resilient cities: the Benevento case study. *Procedia Environ Sci,* 37, 655–666. https://doi.org/10.1016/j.proenv.2017.03.052; Papathoma-Köhle, M., Zischg, A. P., Fuchs, S., Glade, T. and Keiler, M. (2015). Loss estimation for landslides in mountain areas – An integrated toolbox for vulnerability assessment and damage documentation. Environmental Modelling & Software, 63. https://doi.org/10.1016/j.envsoft.2014.10.003.

[9] See, e.g., Suárez, M., Manuel, B. F. D., Méndez-Fernández, L., Onaindia, M. and Gómez-Baggethun, E. (2018). *Nature-based Solutions and Resilience as Complementary Strategies for Urban Governance and Planning: A Review of Assessment Methodologies.* https://doi.org/10.3390/ifou2018-05959; Lahoti, S., Kefi, M., Lahoti, A. and Saito, O. (2019). Mapping methodology of public urban green spaces using GIS: an example of Nagpur City, India. *Sustainability,* 11(7)2166. https://doi.org/10.3390/su11072166; Liu, W., Chen, W. and Peng, C. (2014). Assessing the effectiveness of green infrastructures on urban flooding reduction: a community scale study. *Ecol Model,* 291, 6–14. Also, see Wen Liu, Weiping Chen, Chi Peng. Assessing the effectiveness of green infrastructures on urban flooding reduction: A community scale study. *Ecological Modelling,* 6-14. https://doi.org/10.1016/j.ecolmodel.2014.07.012; Stokes, A., Sotir, R., Chen, W. and Ghestem, M. (2010). Soil bio- and eco-engineering in China: past experience and future priorities. *Ecol Eng,* 36, 247–257. https://doi.org/10.1016/j.ecoleng.2009.07.008.



Flooded rice fields in Thailand. © Wachira Tasee/UNEP

The concept of NbS has faced criticism as well, which tends to be based on the following concerns:

1. the lack of a clear definition of NbS may lead to confusion about its meaning and application;
2. in some cases, the economic claims for NbS may be tenuous, or could be difficult to apply at scale;
3. NbS may be a difficult political sell as the impacts are often longer term, requiring substantial investments without immediate gains; and
4. in some cases NbS is accused of allowing countries and private companies to "green wash" their carbon reduction requirements, without sufficient safeguards to protect the rights of indigenous peoples, local communities, women and youth.[10] Despite this controversy, the practice of NbS has continued to grow and is widely seen as an important contribution to restoring ecosystems and building resilience to climate change across a wide range of settings worldwide.

[10] For some of these arguments, see Alva, A. (2022). A critical perspective on the European Commission's publications evaluating the impact of nature-based solutions. *Nature-based Solutions,* 2, 100027; Larrey-Lassalle, P., Armand Decker, S., Perfido, D., Naneci, S. and Rugani, B. (2022). Life cycle assessment applied to nature-based solutions: Learnings, methodological challenges, and perspectives from a critical analysis of the literature. *Land,* 11(5), 649; Melanidis, M. S. and Hagerman, S. (2022). Competing narratives of nature-based solutions: Leveraging the power of nature or dangerous distraction? *Environmental Science & Policy,* 132, 273-281; Nelson, D. R., Bledsoe, B. P., Ferreira, S. and Nibbelink, N. P. (2020). Challenges to realizing the potential of nature-based solutions. *Environmental Sustainability,* 45, 49-55; Wendling, L. *et al.* (2021). Introduction to the nature-based solutions journal. *Nature-based Solutions,* 1(C); Pax (2024). *Nature in Action for Peace.* https://wedocs.unep.org/bitstream/handle/20.500.11822/44841/Issue48_Nature_in_Action_for_Peace_2024-02-06_V4.pdf?sequence=1&isAllowed=y

Climate, peace and security

The field of "climate-security" has grown and evolved significantly over the past decade. In very broad terms, "climate-security" refers to the ways in which climate change affects the risks of violent conflict. While some early research focused on direct causal links between increasing temperatures and conflict risks [7] [8], the bulk of scholarship today suggests that climate change acts indirectly as a "multiplier" of existing conflict risks,[11] highlighting that regardless of the severity of the climatic/environmental stresses, violent conflict is far from inevitable [9]. To understand the intervening factors, studies on pathways have analysed climatic/environmental factors in different socio-economic contexts, for example through livelihoods and interaction with existing vulnerabilities.[12]

For example, in some settings climate change has worsened drought conditions, leading to crop failure and greater competition over food.[13] In others, desertification has forced migration patterns to change, bringing farming and herding communities into conflict over reduced fertile land and water.[14] Extreme weather and rising sea levels have caused the destruction of arable land, contributing to competition over resources and driving unplanned urbanization [10] [11]. The relationship between climate change and large-scale displacement remains an important area of study as well, with potential implications on conflict risks.[15] Scholarship demonstrating the links between natural resource exploitation and recruitment into armed groups has grown,[16] while the broader relationship between armed conflict and natural resources is now well-established [12]. Evidence of this shift can be found in the growing number of peace agreements that contain specific provisions for managing natural resources [13].

[11] See Day, A. and Caus, J. (2020). *Conflict Prevention in an Era of Climate Change.* UN University; see also, Busby, J. (2019). *The Field of Climate and Security: A Scan of the Literature.* Social Science Research Council (New York); https://static1.squarespace.com/static/61542ee0a87a394f7bc17b3a/t/61b8e67b32b0eb4c0fbb89a5/1639507580316/working-Paper-9-climate-change-threat-multiplier.pdf; Stiefel, E. (2018). Threat Multiplier: The Growing Security Implications of Climate Change. *Fletcher Security Review,* 5, 1:2-7. But see scholarship critical of threat multiplier: https://www.e-ir.info/pdf/73839; https://www.newsecuritybeat.org/2020/01/its-time-threat-multiplier-address-climate-security/.

[12] See https://www.sipri.org/sites/default/files/2020-11/pb_2011_pathways_2.pdf and https://www.sipri.org/sites/default/files/2023-12/2023_sipri-nupi_insights.pdf

[13] See, Raleigh, C. and Kniveton, D. (2012). Come Rain or Shine: An Analysis of Conflict and Climate Variability in East Africa. *Journal of Peace Research,* 49, 1:51-64; Hendrix, C. S. and Salehyan I. (2012). Climate Change, Rainfall, and Social Conflict in Africa. Journal of Peace Research, 49, 1:35-50; Buhaug, H. *et al.* (2015). Climate Variability, Food Production Shocks, and Violent Conflict in Sub-Saharan Africa. *Environmental Research Letters,* 10; Kahsay, G. A. and Hansen, L. G. (2014). *The Effect of Climate Change and Adaptation Policy on Agricultural Production in Eastern Africa.* University of Copenhagen Working Papers 8; von Uexküll, N. Sustained Drought, Vulnerability and Civil Conflict in Sub-Saharan Africa. *Political Geography,* 43:16–26; Raleigh C. *et al.* (2015). The Devil is in the Details: An Investigation of the Relationships Between Conflict, Food Price and Climate Across Africa. *Global Environmental Change,* 32:187-199; Rowhani, P. *et al.* (2011). Malnutrition and Conflict in East Africa: The Impacts of Resource Variability on Human Security. *Climatic Change,* 105:207-222; Halle M. (2009). *How Food Prices Link Environmental Constraints to Sovereign Credit Risk.* United Nations Environmental Programme (Nairobi).

[14] See, Meier, P. Bond, D. and Bond, J. (2007), Environmental Influences on Pastoral Conflict in the Horn of Africa. *Political Geography,* 26, 6:716-735; van Baalen, S. and Mobjörk, M. (2016). *A Coming Anarchy? Pathways from Climate Change to Violent Conflict in East Africa* (Stockholm University); Schilling, J. *et al.* (2010). On Raids and Relations: Climate Change and Pastoral Conflict in Northern Kenya. Climate Change and Conflict: Where to for Conflict Sensitive Climate Adaptation in Africa? Salome Bronkhorst, S. and Urmilla, B. (eds.) (Berliner Wissenschaftsverlag) 241-268; Janpeter Schilling *et al.* (2007). Climate Change and Land Use Conflicts in Northern Africa. *Nova Acta Leopoldina,* 112, 384:173-18; Nyong, A. (2007). Climate-Related Conflicts in West Africa. *Environmental Change and Security Program Report,* 12, 36-43.

[15] See Intergovernmental Panel on Climate Change, First Assessment Report: Working Group II, (Geneva: IPCC, 1990), https://www.ipcc.ch/site/assets/uploads/2018/03/ipcc_far_wg_I_full_report.pdf ["the gravest effects of climate change may be those on human migration as millions are displaced by shoreline erosion, coastal flooding and severe drought"]; See also, Hartmann, B. (2010). Rethinking Climate Refugees and Climate Conflict: Rhetoric, Reality and the Politics of Policy Discourse. *Journal of International Development,* 22, 2; Bettini G. (2013). Climate Barbarians at the Gate? A Critique of Apocalyptic Narratives on Climate Refugees. *Geoforum,* 45, 63-72.

[16] See, e.g., Agger, K. and Hutson, J. (2013). Kony's ivory: How elephant poaching in Congo helps support the Lord's Resistance Army. Retrieved from the Enough Project's Website: https://enoughproject.org/files/KonysIvory.pdf; Beyers, R. L., Hart, J. A., Sinclair, A. R. E., Grossmann, F., Klinkenberg, B. and Dino, S. (2011). Resource wars and conflict ivory: The impact of civil conflict on elephants in the Democratic Republic of the Congo – The case of the Okapi Reserve. *PLoS One,* 6(11), e27129; Bowen-Jones, E. (2012). *Tackling Human-Wildlife Conflict: A Prerequisite for Linking Conservation and Poverty Alleviation.* http://pubs.iied.org/G03725/; Shambaugh, J., Oglethorpe, J., Ham, R. and Tognetti, S. (2001). *The Trampled Grass: Mitigating the Impacts of Armed Conflict on the Environment. Biodiversity Support Program.*

More recently, the field has moved in two directions:

1. an expansion towards the full range of human-caused environmental change (e.g. climate change, pollution and biodiversity loss); and
2. a shift away from "climate-security" towards more positive framings like "climate, peace and security."[17]

This expansion has been paralleled by a growing focus on how both humanitarian and development actors can contribute to reductions in the risks of violent conflict. Furthermore, the UN Security Council has acknowledged the importance of environmental factors in driving risks to international peace and security in specific settings, despite resistance by some member states to acknowledging linkages between climate change and security as a globally relevant theme for consideration by the Security Council.[18] While the latest attempt to secure a dedicated thematic UN Security Council Resolution on climate change was vetoed in late 2021, a total of 12 UN peacekeeping and political missions have seen references to climate impacts included in their mandates.[19] Climate, peace and security has also featured in recent UNFCCC Presidency initiatives, notably in the COP28 declaration on relief, recovery and peace focusing on building resilience in the most vulnerable contexts.[20] The Climate Security Mechanism was established in 2018 and is a joint venture by UNEP, DPPA, DPO and UNDP to support UN's integrated approaches from analysis to action.

> ***"Actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, costal and marine ecosystems which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services and biodiversity benefits."***
>
> UN Environment Assembly Resolution 5/5

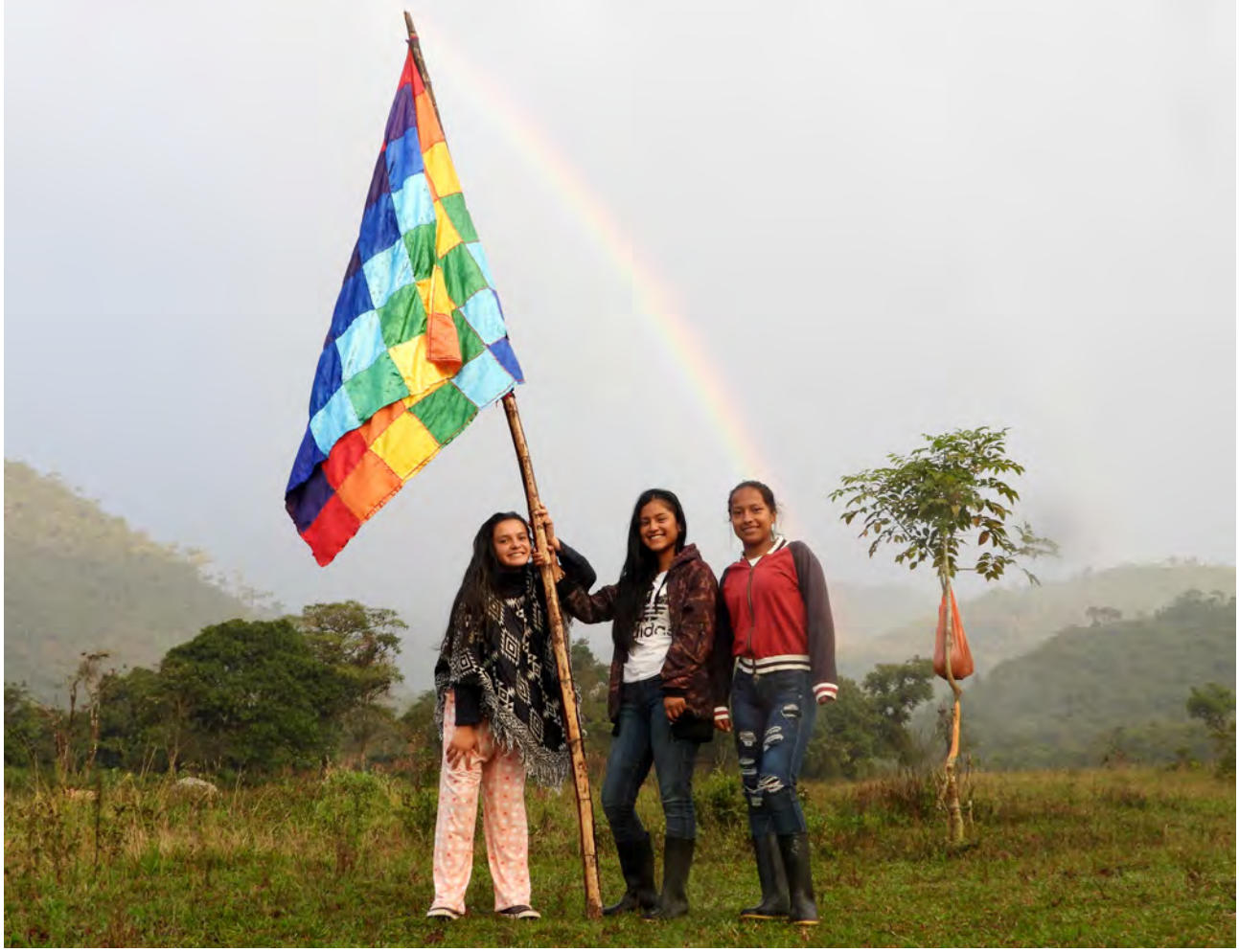
[17] See, Johnson, M. F., Rodriguez, L. A. and Quijano-Hoyos, M. (2021). Intrastate environmental peacebuilding: A review of the literature. *World Development,* 137(1), 10510; see also, Cóbar, J. *et al.* (2022). *Environment of Peace: Security in a New Era of Risk.* https://doi.org/10.55163/LCLS7037; Dresse, A., Fischhendler, I., Nielsen, J. Ø. and Zikos, D. (2019). Environmental peacebuilding: Towards a theoretical framework. *Cooperation and Conflict,* 54(1), 99-119. https://doi.org/10.1177/0010836718808331; Dresse, A., Nielsen, J.Ø., Zikos, D. (2016). *Moving Beyond Natural Resources as a Source of Conflict: Exploring the Human-Environment Nexus of Environmental Peacebuilding.* Thesis Discussion Paper, Humboldt-Universität zu Berlin; https://www.sipri.org/publications/2019/sipri-policy-papers/climate-related-security-risks-and-peacebuilding-somalia.

[18] See, Vivekananda, J., Pacillo, G and Day, A. (2023). *Climate Change in the Security Council in 2023.* https://reliefweb.int/report/world/climate-change-security-council-what-new-council-members-can-achieve-2023; Tarif, K., Seyuba, K., Funnemark, A., Rosvold, E.L., Ali, A,., Kim, K., de Coning, C. and Krampe, F. (2023). *Climate, Peace and Security Research Paper,* https://www.sipri.org/publications/2023/partner-publications/climate-peace-and-security-research-paper-insights-climate-peace-and-security.

[19] See, UN Peace & Security Data Hub (https://psdata.un.org/dataset/CPS-Decisions).

[20] See, https://www.cop28.com/en/cop28-declaration-on-climate-relief-recovery-and-peace

[21] See, Ajroud, B., Al-Zyoud, N., Cardona, L., Edmond, L., Pavitt, D. and Woomer, A. (2017). *Environmental Peacebuilding Training Manual.* Arlington, VA: Conservation International; Ali, S. H. (2007). *Introduction: A Natural Connection Between Ecology and Peace?* In S. H. Ali (Ed.), Peace parks: Conservation and conflict resolution (pp. 1-18). Cambridge, MA: The MIT Press; Andrew-Essien, E. and Bison, F. (2009). Conflicts, conservation and natural resource use in protected area systems: An analysis of recurrent issues. *European Journal of Scientific Research,* 25(1), 118-129; Certini, G., Scalenghe, R. and Woods, W. I. (2013). The impact of warfare on the soil environment. *Earth-Science Reviews,* 127, 1–15. https://doi.org/10.1016/j.earscirev.2013.08.009; Zierler, D. (2011). *The Invention of Ecocide: Agent Orange, Vietnam, and the Scientists Who Changed the Way We Think About the Environment.* University of Georgia Press; Daskin, J. H. and Pringle, R. M. (2018). Warfare and wildlife declines in Africa's protected areas. *Nature,* 553, 328–332.



Youth of the Fundación Brisas del Macizo committed to peace and environment in Santa Rosa, Colombia. © PAX.

Today, the field of climate, peace and security consists of scholarship and practice that considers all human-caused environmental change, its impacts on the risks of violent conflict, and responses that address both conflict prevention and ecological preservation simultaneously.[21] As such, it includes NbS as one set of practices that can reduce the risks of violent conflict.[22] On this basis, conflict-sensitive environmental guidance is referenced in some NbS programming, but has not yet become standardized in practice.[23] The following explores how the emerging practice of NbS could contribute to more systematic joined up action across environmental and peacebuilding programming.

[22] See Bush, K. and Opp, R. (1999). *Peace and Conflict Impact Assessment.* In D. Buckles (Ed.), Cultivating Peace: Conflict and Collaboration in Natural Resource Management, 185-202. Ottawa, Canada: International Development Research Centre; Campbell, L. M. (2002). Conservation narratives in Costa Rica: Conflict and co-existence. *Development and Change,* 33, 29-56; *Conflict Conservation:* The Economist (2010). *Biodiversity Down the Barrel of a Gun.* https://www.economist.com/node/15488793; Crawford, A. (2012). *Conflict-Sensitivity Conservation in Nyungwe National Park: Conflict Analysis.* International Institute for Sustainable Development. http://www.iisd.org/pdf/2012/csc_nyungwe_conflict_analysis.pdf; Gaynor, K. M., Fiorella, K. J., Gregory, G. H., Kurz, D. J., Seto, K. L., Withey, L. S. and Brashares, J. S. (2016). War and wildlife: Linking armed conflict to conservation. *Frontiers in Ecology and the Environment,* 14(10), 533-542; Hammill, A. and Besançon, C. (2010). *Promoting Conflict Sensitivity in Transboundary Protected Areas: A Role for Peace and Conflict Impact Assessments.* International Institute for Sustainable Development. http://www.iisd.org/library/promoting-conflict-sensitivity-transboundary-protected-areas-role-peace-and-conflict-impact/; Hanson, T. *et al.* (2009). Warfare in biodiversity hotspots. *Conservation Biology,* 23(3), 578-587; Jarraud, N. and Lordos, A. (2012). Participatory approaches to environmental conflict resolution in Cyprus. *Conflict Resolution Quarterly,* 29(3), 261-281; Madden, F. and McQuinn, B. (2014). Conservation's blind spot: The case for conflict transformation in wildlife conservation. *Biological Conservation,* 178, 97-106. For example, drawing heavily on practices in the Great Lakes region, the International Institute for Sustainable Development produced a Practitioners Manual for Conflict-Sensitive Conservation in 2009, available at: https://wwwNbS.iisd.org/system/files/publications/csc_manual.pdf.

[23] See, e.g., United Nations Interagency Framework Team for Preventive Action. *Renewable Resources and Conflict: Toolkit and Guidance for Preventing and Managing Land and Natural Resources Conflicts.* https://www.un.org/en/land-natural-resources-conflict/pdfs/GN_Renew.pdf; United Nations Development Group (2016). *Natural resource management in transition settings* (UNDG-ECHA guidance note). https://postconflict.unep.ch/publications/UNDGECHA_NRM_guidance_Jan2013.pdf; United Nations Environment Programme (2014). *Relationships and Resources: Environmental Governance for Peacebuilding and Resilient Livelihoods in Sudan.* https://www.unep.org/resources/report/relationships-and-resources-environmental-governance-peacebuilding-and-resilient; United Nations Interagency Framework Team for Preventive Action (2012). *Strengthening Capacity for Conflict-Sensitive Natural Resource Management.* https://www.un.org/en/land-natural-resources-conflict/pdfs/GN_Capacity.pdf.

02 Key Lessons from the Emerging Practice of Nature-based Solutions for Peace

Societies in conflict-affected settings face multiple forms of vulnerability, including simultaneously confronting violence and environmental shocks. In some settings, this manifests as a vicious cycle of conflict causing environmental degradation, in turn disrupting livelihoods and driving more people towards armed or maladaptive activities as a coping mechanism. In other cases, an environmental shock like crop failure or extreme weather exacerbates conflict drivers and leads to violence, or the gradual loss of natural resources fuels underlying competition amongst communities

Regions most acutely impacted by climate change, biodiversity loss, and pollution are overwhelmingly those also suffering from other forms of conflict and instability.[24] In fact, more than one-third of the projects funded by the Global Environmental Facility are implemented in contexts categorized as conflict settings, and more than 88 percent in situations that are considered fragile [14]. Conflicts are often over natural resources, meaning NbS are also often about managing access and ownership of contested land, minerals, and travel routes.

A review of 40 cases of NbS in fragile and conflict-affected settings, drawing on a newly published online Catalogue of Nature-based Solutions for Peace, the Global Environment Facility (GEF) and other sources (see Annex 1), suggests a number of common risks and opportunities. This section attempts to capture the key lessons from this emerging practice.

Unexploded ordnance continues to pose a threat to people and the environment well after a conflict has ended.
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[24] See C. Bruch *et al.* (2024). *Conflict Sensitive Conservation: Lessons from the Global Environmental Facility.* (Routledge), 230.

1. NbS are uniquely placed to address underlying conflict drivers and conflict resolution

The evidence from the cases and the broader literature review suggests that environmental changes have a significant influence on many of the most important factors driving violent conflict. This means that efforts to respond to environmental change can support conflict prevention, or have an impact on conflict resolution efforts. Indeed, the collective of cases indicates that NbS offer strong value for money and long-term benefits that cannot be replicated via other approaches.

If planned and implemented well, NbS can simultaneously address the impacts of environmental change and reduce the risks of conflict, contributing directly to peacemaking efforts as well. In some cases – for example in the Liptako-Gourma region of the Sahel – NbS projects contributed directly to ongoing peace processes, including by mapping crucial actors and increasing engagement by local authorities.[25] In others, such as in the DRC, Colombia, Somalia, and Afghanistan, NbS programming occurred in parallel to mediation and negotiation efforts, often with little connective tissue between the two sets of processes. The result was a missed opportunity: the NbS programming produced extensive analysis, stakeholder mapping, and highly inclusive processes that could have contributed more directly to peacebuilding.

The remainder of the cross-cutting findings are geared at NbS programming, broadly with the hope of better connecting it with peacemaking in the future.

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[25] See, e.g., https://www.eip.org/wp-content/uploads/2024/02/EIP-TWG-Environmental-Peacemaking-Mapping-of-Initiatives-in-Liptako-Gourma-English-2024.pdf; https://www.eip.org/wp-content/uploads/2024/02/EIP-TWG-Environmental-Peacemaking-Approach-in-Liptako-Gourma-English-2024.pdf.

2. Conflict presents direct risks to NbS projects

The case studies suggest five interrelated ways that conflict may present risks to NbS programming:

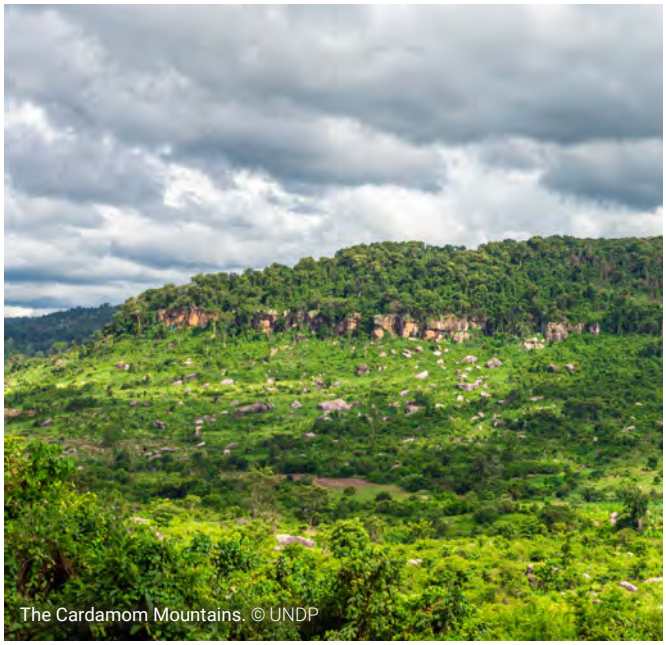
- Physical insecurity
- Social conflict
- Economic factors
- Political fragility
- Weak governance [14]

In some instances, the risk is direct and visible, such as armed conflict preventing access to project areas, or threats to staff on the ground (e.g. in the DRC, Somalia, and Mali). In other cases, social conflicts over land and other resources drive mistrust and inhibit effective project implementation, particularly where projects extend across communal or national boundaries (e.g. in the Balkans, the Mediterranean, and Colombia). Communities affected by conflict often adopt coping strategies that undermine resilience (e.g. cutting down trees for firewood, or artisanal mining), while the links between environmental degradation and conflict have been clearly shown in a wide range of settings.[26] In the most extreme cases, threats to NbS projects and staff can result in the cancellation of a programme and withdrawal of international support.[27]

The lesson here is clear: by linking NbS with the reduction of risks of violent conflict, programming can create a virtuous circle, helping to address underlying conflict drivers and in turn creating a better set of conditions for protecting the environment. For example, by engaging communities in environmental protection projects in the Cardamom Mountains of Cambodia, the NbS project increased livelihoods and reduced the risks of inter-communal violence over scarce resources (see **BOX 2**). The remainder of this section identifies specific issue areas and/or risk-mitigation strategies that have proven effective in conflict-affected, fragile settings.

BOX 2: COMMUNITY-BASED CONSERVATION IN THE CARDAMOM MOUNTAINS, CAMBODIA (2001-2007)

The Global Environmental Facility's "Developing an Integrated Protected Area System for the Cardamom Mountains" project focused on involving local communities in conservation efforts to mitigate conflicts. This project emphasized a participatory process to establish village conservation stewardship agreements and village development plans using microfinancing. Financial incentives were provided for monitoring and detecting wildlife and forest crime. These efforts successfully reduced local conflicts by aligning the interests of the community with conservation goals, creating economic opportunities, and enhancing local governance structures. By integrating local communities into the conservation process, the project not only protected biodiversity but also fostered a sense of ownership and responsibility among the residents, thereby reducing the likelihood of conflict over natural resources.



The Cardamom Mountains. © UNDP

[26] See, e.g., United Nations Environment Programme (2019). *Drawing Forestry Lessons from Republic of Korea to Enhance Livelihoods in Afghanistan.* https://www.unenvironment.org/news-and-stories/story/drawing-forestry-lessons-republic-korea-enhance-livelihoods-afghanistan.

[27] See C. Bruch *et al.* (2013) and Young, H. and Goldman, L. (2015). *Implementation Completion and Results Report (TF54199) [Gourma Biodiversity Conservation Project, Project 1253].* https://www.gefieo.org/sites/default/files/documents/projects/tes/1253-terminal-evaluation.pdf.

3. Focus on alternative livelihoods

Given the strong relationship between natural resources, livelihoods, and armed group mobilization, it is unsurprising that many successful NbS projects focus on employment and livelihoods. Providing alternative livelihoods is also a crucial aspect of preventing maladaptation to environmental changes. Practices include providing legal, non-exploitative options in settings where illegal timber, fishing, or mining provide resources to armed groups.[28] Or it can mean providing climate-smart agricultural opportunities for vulnerable groups affected by a combination of changing rainfall patterns and conflict.[29]

In some instances, NbS programming have successfully "reskilled" workforces to respond to environmental shocks (see **BOX 3** for example).[30] Common across these cases is the need for NbS to be grounded in a good understanding of the labor market, including how the combination of environmental and conflict shocks might affect livelihoods.

Another critical consideration is ensuring that livelihood interventions specifically target women and marginalized groups, taking into account the socio-economic barriers they face.

BOX 3: BUILDING RESILIENCE TO CLIMATE-RELATED SECURITY RISKS IN WEST KARNALI, NEPAL (2018-2021)

This project, implemented through the EU-UNEP Climate Change and Security Partnership, sought among other objectives to support alternative, climate-resilient livelihoods for vulnerable communities in Western Nepal. Livelihood insecurity linked to changing weather patterns and dwindling rural economies in the Karnali River Basin is one of the key drivers of seasonal and permanent out-migration, particularly among young men. At the start of the project, the majority of households in the project area (78 percent) relied on one or two livelihood practices, most of which were agricultural and highly vulnerable to changing weather patterns. Together with local government, community members identified marketable and climate-smart economic opportunities, both on and off-farm. This included introducing new sustainable agricultural techniques and crop types, as well as "reskilling" community members in other trades that could compensate for lower income from agriculture in the off-season. By the end of the project, 67 percent of households had at least three different livelihood practices, allowing them to adapt the source of income to the season and prevailing climatic conditions, and nearly all surveyed (95 percent) reported improved income as a result of project activities. This allowed some community members who would previously have left the area in search of alternative income in Kathmandu or in other countries to remain in their communities throughout the year.

START OF PROJECT

78%

of households relied on one or two livelihood practices, most of which were agricultural

END OF PROJECT

67%

of them had at least three different livelihood practices

Geeta Tharu displays a billboard advertising her eatery in Nangapur, Bardiya district, Nepal. © UNEP

[28] E.g. the cases in the Democratic Republic of the Congo.
[29] E.g. the cases in Central African Republic.
[30] E.g. the flood resistance programming in Nepal.

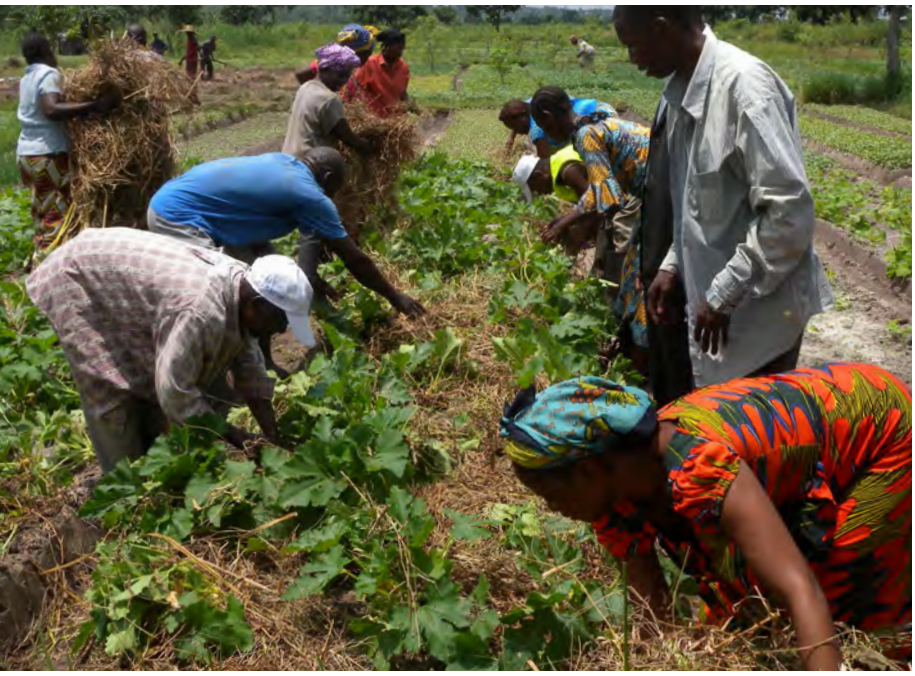
4. Addressing inequality and economic incentives

Economic factors are present in nearly every NbS case, including instances where armed groups derive benefits from illegal exploitation of resources (DRC, Mali, Afghanistan), or where environmental changes affect livelihoods and drive communities towards conflict. Most of the NbS cases reviewed converged around a similar theory of change: if communities are involved in environmental management in a way that improves livelihoods and provides equitable access to resources, the risks of violent conflict will be reduced. This theory of change is not always explicit, but the underlying concept of equal access to resources is a strong recurrent theme across many of the reviewed cases. In fact, the success of many NbS projects studied for this paper has hinged on providing equitable access to resources, including farming communities in Mali, CAR, DRC, Colombia, and Afghanistan.

Adopting a political economy lens based on local markets allowed several of the reviewed NbS projects to develop effective interventions that reduced the risks of unintended consequences.

A related theme is that of providing economic incentives and disincentives to change behavior. Examples include programmes to disincentivize illegal poppy production in Afghanistan, illegal logging in Cambodia and DRC, and poaching in Mali and CAR.[31] Adopting a political economy lens based on local markets allowed several of the reviewed NbS projects to develop effective interventions that reduced the risks of unintended consequences.

As such, it is worth noting a strong alignment between NbS and the 2018 UN/World Bank *Pathways* for Peace Report.[32] A key finding of *Pathways* was that inequalities amongst groups (and grievances caused by the unequal distribution of power and resources) was the most important driver of conflict. By specifically designing projects around equitable access to resources, NbS programming appears well-suited to the *Pathways* approach.



In addition, when designed with a robust intersectional lens, NbS programming offers significant opportunities to strengthen women's leadership and roles in conflict prevention and peacebuilding. While gender equality and women's empowerment are not explicit objectives in every case, some projects demonstrated that natural resource governance and management interventions offer an entry point for women's economic empowerment and as well as their participation in decision-making and peacebuilding (Sudan, Nepal, CAR).[33]

Urban farmer associations are a positive example of emerging social enterprises, which can help improve food security and 'green' the DRC's rapidly growing cities. (Tshuenge, Kinshasa) © UNEP

[31] See, e.g., USAID (2022). *Cambodia: Agriculture and Food Security.* https://www.usaid.gov/cambodia/agriculture-and-food-security; Felbab-Brown, V. (2021). Pipe dreams: The Taliban and drugs from the 1990s into its new regime. *Small Wars Journal.* https://smallwarsjournal.com/jrnl/art/pipe-dreams-taliban-and-drugs-1990s-its-new-regime; see also, C. Bruch *et al.* (2024). *Conflict Sensitive Conservation: Lessons from the Global Environmental Facility* (Routledge).
[32] See https://www.worldbank.org/en/topic/fragilityconflictviolence/publication/pathways-for-peace-inclusive-approaches-to-preventing-violent-conflict.
[33] See also: United Nations Environment Programme, UN Women, Department of Political and Peacebuilding Affairs, United Nations Development Programme (2020). *Gender, Climate and Security: Sustaining Inclusive Peace on the Frontlines of Climate Change.*

5. Addressing migration and displacement

A majority of the NbS cases examined for this paper involve population displacement of some kind. In some settings, conflict-driven displacement has meant that ecosystems were placed under greater pressure and/or environmental priorities had to be balanced against the needs of newly vulnerable populations (e.g. in eastern DRC, Central African Republic, Mali). In other settings, environmental factors have contributed to population movements, whether due to changing agricultural practices, accelerated urbanization, or loss of arable land (Somalia, Cambodia, and Colombia). And in a small number of cases, it was the changing movements of animals that needed to be managed, such as the migration routes of elephants in Mali.

One of the most important trends in this context is rural-urban migration, resulting in increasing – and generally unplanned – urbanization. Rural communities suffering from loss of livelihoods due to environmental changes (e.g. crop failure, destruction of arable land, extreme weather) strongly tend to seek out new livelihoods in urban areas. As a result, urban areas often face increasing conflicts over access to land, water and housing. The impacts of climate change, pollution and poor urban planning can also heighten tensions. Inclusive and holistic NbS in urban areas can help to respond to new pressures on cities by adressing resource scarcity, improving living conditions and enhancing social cohesion, thereby reducing the risks of new sources of conflict.[34] For example, urban green spaces can reduce heat stress, improve air quality, and provide areas for community interaction and integration, as seen in Medellín, Colombia, where green corridors established to tackle rising heat have also helped reduce violence and provide jobs to displaced people.[35]

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More generally, population movements present challenges to environmental programming as they tend to create new strains on natural resources, opportunities for degradation, and unexpected pressures on budgets. The coping mechanisms of displaced populations – for example gathering firewood or cultivating food in protected areas, or turning to artisanal and small-scale mining – can run directly against environmental sustainability goals. In addition, such vulnerable populations are also uniquely susceptible to shocks, such as zoonotic diseases, economic downturns, or changing resource availability. Women and girls face particular risks in displacement on the basis of their gender, including sexual and gender-based violence, stoppages in girls' education, and extreme economic hardship due to barriers to entry in the labor market. However, successful NbS projects have found win-win opportunities in these kinds of settings, offering livelihood opportunities to newly displaced populations and generating greater resources for communities, including through specific measures addressing the needs of women and other marginalized groups. Integrating displacement considerations into NbS projects from the outset, and anticipating the risks of new population movements within a project cycle, are key lessons for successful environmental action and peacebuilding in conflict-affected settings.

[34] See, e.g., 231108_upimc_vision_sc_ap_vol_2_final_compressed.pdf (unhabitat.org); see also Day, A. and Caus, J. (2020). *Conflict Prevention in an Era of Climate Change.* UN University (case studies on Bangladesh and Nigeria).
[35] https://www.bbc.com/future/article/20230922-how-medellin-is-beating-the-heat-with-green-corridors.

6. Advancing transboundary cooperation

In some cases, NbS can play a role in supporting transboundary cooperation, offering cross-border programming that can deliver mutually beneficial outcomes and enhance prospects for cooperative management of shared natural resources. Cases considered from the Balkans, the Mediterranean, Colombia, the Great Lakes, and the Liptako-Gourma region all suggest that governments can find common benefits in NbS. But such programming presents challenges as well. The Congo Basin Forest Initiative, for example, has struggled to coordinate efforts across the seven involved countries, in large part due to differing national priorities and capacities.[36] The Great Green Wall initiative in the Sahel similarly draws eleven countries into a common approach to prevent desertification, but has struggled to pursue a common set of programmes due to the widely differing financial situations in each country [15] [16]. In the Mekong Valley, the Mekong River Commission has helped to reduce the risks of cross-border tensions, but has also faced challenges of competing needs by communities along the river [17] [18]. Lessons from experience of cooperation on transboundary watercourses[37] may be relevant in advancing cross-border NbS programming: this may be one of the most promising avenues for further work.

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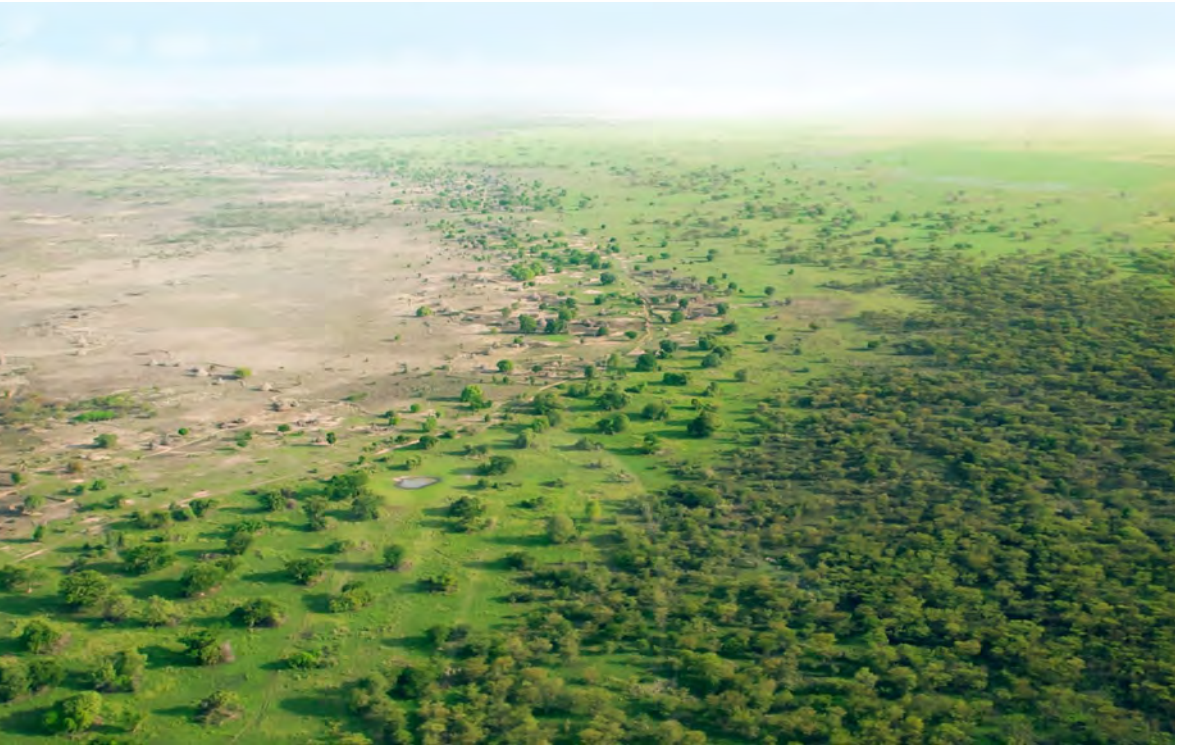


Aerial view of the Great Green Wall, Sahel region.
© UNCCD

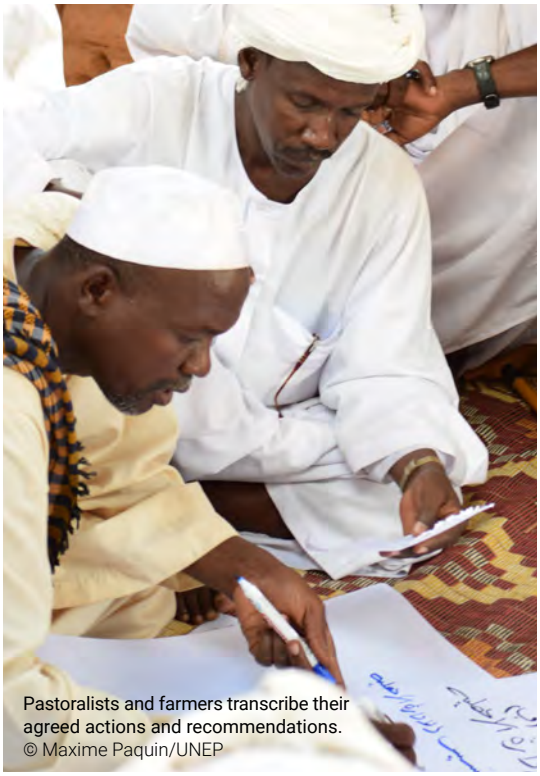
[36] See, https://pfbc-cbfp.org/home.html; Trefon, T. (2017). Forest governance and international partnerships in the Congo Basin. *Forest,* 10, 13.
[37] See https://openknowledge.worldbank.org/entities/publication/14ad91d5-8217-58ff-878b-4898fa287269.

7. Local grounding and participatory approaches

In addition to working closely with national authorities, every case study reviewed for this study has included some form of participatory approach where local officials and/or communities are directly included in planning and implementation (see **BOX 2** and **BOX 4** for examples). The term "participatory planning" is used in many of the cases, including where planning processed are under the direct leadership of local communities (e.g, in the DRC and Peru). This local participation is particularly important in sensitive agricultural settings where small changes in biodiversity or rainfall can have an enormous impact on livelihoods. A clear finding from the cases and from the scholarship is that participatory approaches that ensure equitable and meaningful participation from all social groups, including women and marginalized groups are the best way to avoid unintended outcomes from NbS.[38]

BOX 4: BUILDING RESILIENCE TO CLIMATE-RELATED SECURITY RISKS IN NORTH DARFUR, SUDAN (2018-2021)

In 2018, the EU-UNEP partnership on Climate Change and Security established a project in the Wadi El Ku catchment area of North Darfur State, Sudan. Seeking to address the underlying drivers of conflict in the region, the project used a combination of nature-based solutions for adaptation and peacebuilding activities to promote more effective and equitable management of shared natural resources between and among different groups. For example, the project supported a participatory process to re-establish the joint management of migratory routes in the project area. The process brought together pastoralists, farmers, and government representatives to assess challenges leading to conflict, identify conflict hotspots along the routes, and develop joint solutions for conflict prevention, which included improved access to water for cattle. This process not only improved the management of migratory routes, but also helped to rebuild relationships between communities in the area. Community members reported that conflicts between farmers and pastoralists reduced markedly after the joint activities and social event, and that there was an increase in positive interactions between farmers and pastoralists in different contexts, for example in sharing tea at local markets and joining communal events such as marriage ceremonies and funerals.



Pastoralists and farmers transcribe their agreed actions and recommendations.
© Maxime Paquin/UNEP

[38] See, e.g., Koutsovili, E. I. *et al.* (2023). Participatory approaches for planning nature-based solutions in flood vulnerable landscapes. *Environmental Science & Policy,* 140, 12-23; Kiss, B. *et al.* (2022). Citizen participation in the governance of nature-based solutions. *Environmental Policy and Governance,* 32.3, 247-272; Biancifiori, S. (2022). *The Participatory Approaches in Nature-based Solutions Projects.* Diss. Politecnico di Torino; Puskás, N., Yaser, A. and Salpy, N. (2021). Assessing deeper levels of participation in nature-based solutions in urban landscapes–A literature review of real-world cases. *Landscape and Urban Planning,* 210, 104065; Ferreira, V. *et al.* (2020). Stakeholders' engagement on nature-based solutions: A systematic literature review. *Sustainability,* 12.2, 640.

The use of perception surveys offers a fruitful way to gauge local views and reduce the risks that NbS programming may increase grievances or inter-group inequalities. Across a wide range of cases, a common finding concerns the importance of going beyond state-level engagement to engage directly with local leaders and community.[39] This approach aligns with the scholarship on transparency and accountability for natural resource management, requiring that local actors have a clear understanding of the purpose of a project, and the ability to lead its implementation [19].

In some cases, NbS programming constitutes a tool for local-level peacebuilding, directly bringing communities together to address immediate causes of conflict. UNEP has pursued such integrated approaches in a number of settings, including in Sudan and Nepal, with strong results. Similar programming is currently ongoing in Côte d'Ivoire, the Horn of Africa, the Middle East and Central/South America, with the aim of generating a broader evidence base for nature-based solutions in peacebuilding.

8. Working with the state

Violent conflicts also erode institutional capacities for environmental management. In some cases, environmental actors become corrupted or instrumentalized by armed groups or traffickers (e.g. Mali, DRC, Afghanistan, Somalia). In others, armed actors may attack project sites (e.g. Al Shabaab attacks on water wells in Somalia) or otherwise disrupt NbS efforts. In some settings, governments focusing on armed groups tend to reprioritize resources and political focus away from the environment into the security sector. As one group of experts noted, "Armed conflict can shift the focus and priorities of a state and community away from environmental initiatives" [14]. In more direct cases, efforts to clear areas of armed groups may cause environmental destruction, such as through brush clearing or deforestation. Over time, political instability caused by conflict can undermine the ability of governments to provide sustained, predictable support to environmental programming (an issue consistently cited in cases in Lebanon, the Balkans, and several African case studies).[40]

While all the cases referred to in this document are grounded in local analysis and action, many have depended for their success on a cooperative relationship with national governments. This can be especially important where conflict dynamics risk the curtailment or cancellation of an NbS project by the state, or where a risk of maladaptation is particularly high.[41] Examples of maladaptation include conservation zoning that causes displacement or unequal access to resources, the creation of new arable land in areas of acute competition over agricultural resources, or overly strict laws that inhibit livelihoods and drive communities towards violent conflict.[42]

[39] See C. Bruch *et al.* (2024). *Conflict Sensitive Conservation: Lessons from the Global Environmental Facility* (Routledge), 157. See also, Asin, D. (2010). *Healing the Rift: Mitigating Conflict over Natural Resources in the Albertine Rift.* New Security Beat. https://NbS.newsecuritybeat.org/2010/03/healing-the-rift-mitigating-conflict-over-natural-resources-in-the-albertine-rift/.

[40] See, e.g., Asmar, F. (2008). Terminal Evaluation [Integrated Management of Cedar Forests in Lebanon in Cooperation with Other Mediterranean Countries, Project 1707]. Global Environment Facility Independent Evaluation Office. https://www.gefieo.org/data-ratings/projects/ project-id-1707; Conca, K. and Wallace, J. (2009). Environment and peacebuilding in war-torn societies: Lessons from the UN Environment Programme's experience with post-conflict assessment. Global governance: A Review of Multilateralism and International Organizations, 15(4), 485–504. https://doi.org/10.1163/19426720-01504008; Lasaridi, K.-E. and Valvis, A. (2011). Environmental threats and security in the Balkans. Southeast European and Black Sea Studies, 11(4), 471–487. https://doi.org/10.1080/146 83857.2011.632546.

[41] See Filzmozer, E. and Brasier, P. J. (2017). Closing a (Violent) Chapter: Santa Rita Hydro Dam Project Officially Cancelled. Carbon Market Watch. https://carbonmarketwatch.org/2017/11/30/closing-violent-chapter-santa-rita-hydro-damproject-officially-cancelled/. Food and Agriculture Organization of the United Nations (2012). Collaborative conflict

[42] Nigeria and Bangladesh case studies in A. Day and J. Caus (2020). Conflict Prevention in an Era of Climate Change. UN University.

In such settings, some of the most successful NbS projects have included advisory support to governments (including for integrating NbS approaches into their National Adaptation Plans), joint planning, and direct support to state-led policymaking and legislative efforts. For example, the South Sudan National Adaptation Plan includes a commitment to prioritize ecosystem-based adaptation and to recognize that ecosystems and biodiversity are crucial resources for resilience building and climate change adaptation,[43] based on technical support from UNEP and UNDP. Additional examples include:

- support to state-led post-conflict reconstruction in Afghanistan by combatting land degradation and sustainable land management;
- joint programming with the Sudanese government on sustainable land management and improved food security;
- collaboration with the Congolese government to preserve biodiversity in the Congo River Basin;
- GEF support to South Sudan's forest conservation and alternative livelihoods development as part of climate adaptation efforts;
- a partnership between the GEF and the Somali government to address biodiversity loss in conflict-affected areas;
- biodiversity conservation with the Sierra Leone government, focused on post-conflict recovery and livelihoods; and
- a joint GEF/Colombia project to integrate environmental protection into post-conflict recovery.[44]

Many of the cases highlight the deeply negative impact of conflict on institutional capacities. In settings where the state has been engaged in active fighting, resources have been directed away from environmental efforts towards military operations. The result is a greatly diminished capacity for the state to protect natural resources or hold illicit actors accountable. This lack of capacity is especially acute in countries emerging from long periods of conflict, such as Cambodia, Afghanistan, Lebanon, and the Western Balkans.[45]

Successful NbS projects tend to focus directly on these shortfalls, for example offering funding to hire new environmental actors, train existing officials, and re-skill those who might otherwise fall prey to armed group recruitment.[46] A criticism of some programmes was that they practiced a form of "parachute support," providing short-term assistance via Western actors which dried up at the end of the project.[47] A common lesson across the cases appears to be that sufficient resources should be provided for sustained institutional capacity-building.

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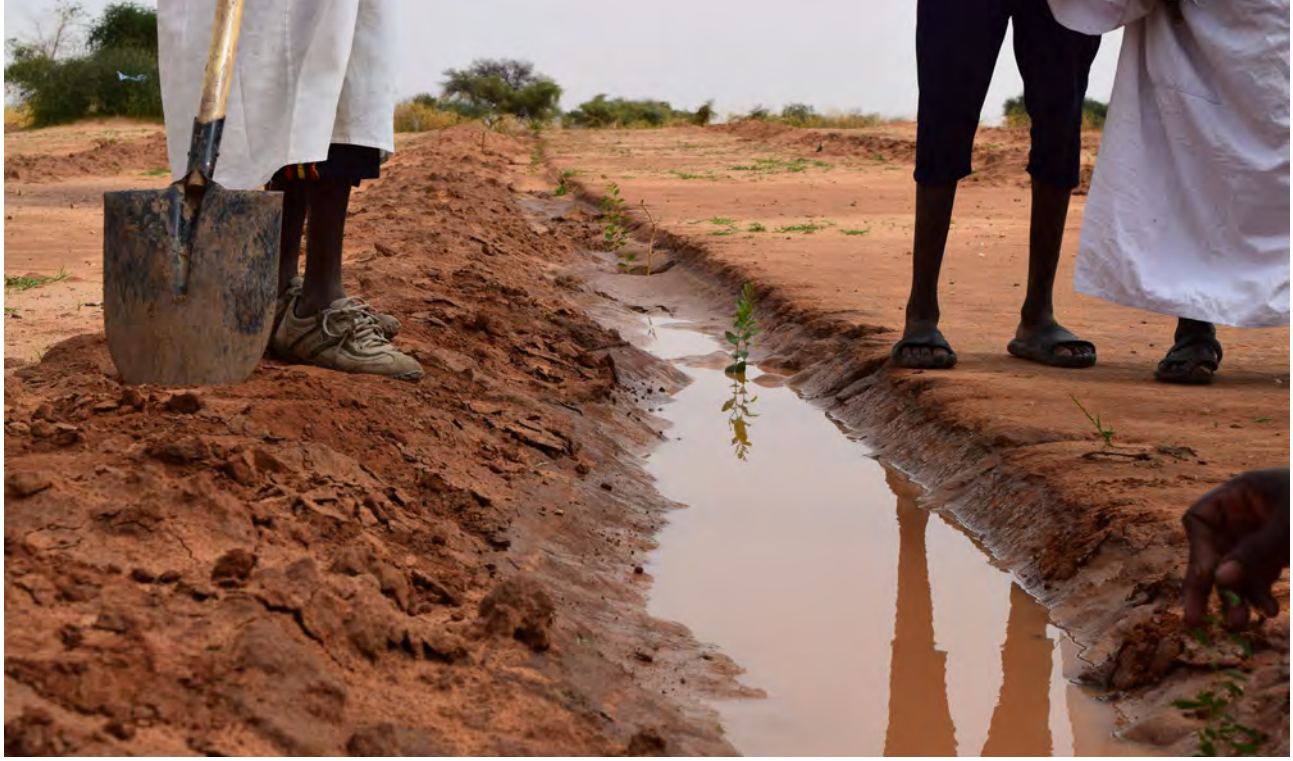
[43] See First National Adaptation Plan for Climate Change, Republic of South Sudan, South Sudan Ministry of Environment and Forestry (2021). Juba. https://unfccc.int/sites/default/files/resource/South-Sudan-First-NAP%20.pdf

[44] See annex 1 for references to these cases.

[45] See, e.g., World Bank (2021). *Implementation Completion and Results Report [West Balkans Drina River Basin Management, Project 5723].* https://publicpartnershipdata.azureedge.net/gef/GEFDocuments/2e34c631-df7c-e811-8124-3863bb2e1360/TE/TerminalEvaluationTE_5723-5556-P145048-2021-ICR-WB-Regional-Western-Balkans.pdf.

[46] See, e.g., Carr, J. A., Outhwaite, G. E., Goodman, G. L., Oldfield, T. E. E. and Foden, W. B. (2013). *Vital But Vulnerable: Climate Change Vulnerability and Human Use of Wildlife in Africa's Albertine Rift (Report No. 10387).* International Union for Conservation of Nature. https://www.iucn.org/resources/publication/vital-vulnerable-climate-change-vulnerabilityand-human-use-wildlife-africas; Kujirakwinja, D., Shamavu, P., Hammill, A., Crawford, A., Bamba A. and Plumptre, A. J. (2010). *Healing the Rift: Peacebuilding in and Around Protected Areas in the Democratic Republic of Congo's Albertine Rift.* USAID. https://www.iisd.org/sites/default/files/publications/healing_the_rift_congo.pdf.

[47] See, e.g., Anguelovski, I. and Corbera, E. (2023). Integrating justice in nature-based solutions to avoid nature-enabled dispossession. *Ambio* 52, 45–53. https://doi.org/10.1007/s13280-022-01771-7; Rees, A. and Doyon, A. (2023). Unsettling NbS: A pathway towards shifting colonial power relations in nature-based solutions research and practice. *PLOS Clim,* 2(11): e0000307. https://doi.org/10.1371/journal.pclm.0000307.



Community Forestry Arab Bashir. © UNEP

9. Justice and the rule of law

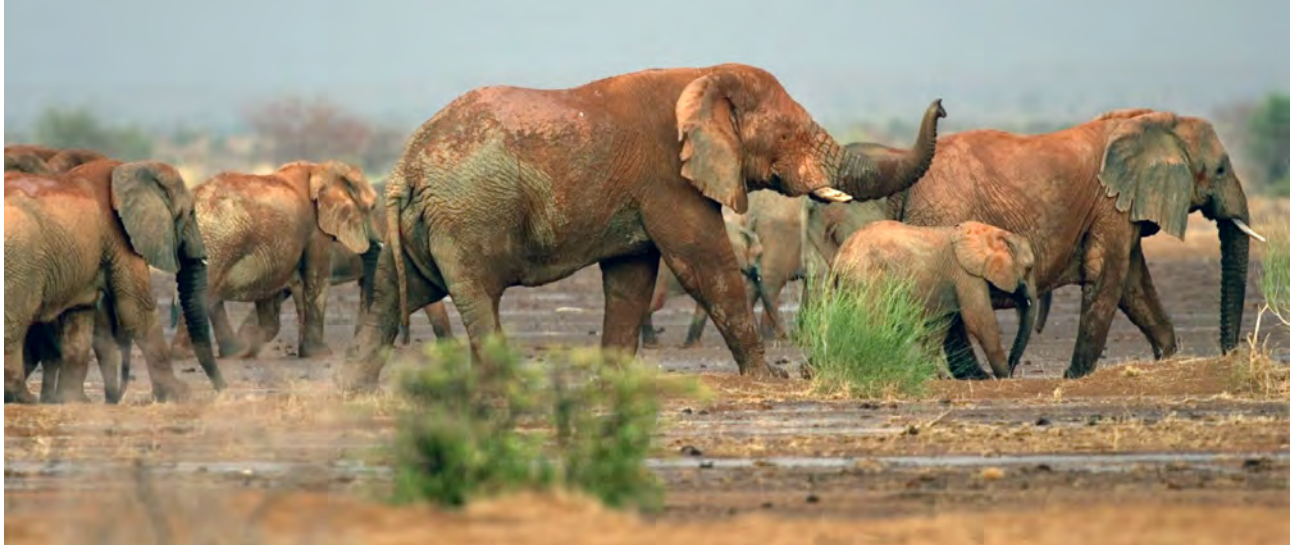
Most of the cases involve some form of illegal exploitation of resources and/or an important role for the legal conservation framework. In some cases, the link to law enforcement is clear, such as illegal elephant poaching in Mali, the cross-border timber and mineral trade in eastern DRC, or efforts to combat illegal poppy cultivation in Afghanistan. In others, the link is more related to zoning of land for conservation, such as the cases involving reforestation in Thailand, mangrove restoration in El Salvador, forestry conservation in Colombia, or soil conservation in Peru.[48]

A common risk is that conservation officials may become complicit with illegal and/or armed groups, allowing illegal access to natural resources in exchange for money. Projects that were able to pay conservation officials appeared better equipped to address this risk, and even nominal payments for jobs considered prestigious in the local communities acted as a hedge against armed group activity (e.g. the payments to elephant guards in Mali, see **BOX 5**). Certainly, where the livelihoods of conservation officials were ignored, they risked becoming spoilers or active armed actors.[49]

In many of the reviewed cases, questions of justice and redress for past wrongs were important factors. Communities that had suffered poor treatment by governments or other actors, or which had lost resources due to a combination of environmental change and conflict, were more likely to fall into instability. In contrast, where programming offered a pathway to improving those conditions, or addressing a longstanding grievance, the risks of conflict appeared to decrease.

[48] See, e.g., Peace is destroying Colombia's jungle– and opening it to science. *Nature.* https://www.nature.com/articles/d41586-018-05397-2; Steffens, G. (2018). *In the Colombian Amazon, Peace has Environmental Consequences.* The World. https://www.pri.org/stories/2018-05-03/colombian-amazon-peace-has-environmental-consequences; Volckhausen, T. (2019). *Deforestation in Colombia Finally Dips Three Years After FARC Peace Deal.* Pacific Standard. https://psmag.com/environment/deforestation-in-colombia-finally-dips-three-years-after-farc-peace-deal.

[49] See, e.g., Lang, C. (2017). *Leaked WWF Report on the Baka in Cameroon: "Many Cases of Abuse and Human Rights Violations Are Reported by the Communities".* Conservation Watch. https://medium.com/conservationwatch/leaked-wwf-report-on-the-baka-incameroon-many-cases-of-abuse-and-human-rights-violations-are-2682ca9bf975; Vidal. J. (2016). *WWF Accused of Facilitating Human Rights Abuses of Tribal People in Cameroon.* Buzzfeed News. https://www.theguardian.com/environment/2016/mar/03/wwf-accused-of-facilitating-human-rights-abuses-of-tribal-people-in-cameroon; Vidal, J. (2020). *Armed Ecoguards Funded by WWF 'Beat Up Congo Tribespeople.'* The Guardian. https://www.theguardian.com/global-development/2020/feb/07/armed-ecoguards-funded-by-wwf-beat-up-congo-tribespeople.



BOX 5: THE MALI ELEPHANT PROJECT

The Mali Elephant Project demonstrates how nature-based solutions can foster peace and stability. By engaging local communities through workshops and participatory approaches, the project built a shared vision for the conservation of elephants, which are seen as indicators of a healthy ecosystem. This collaborative effort led to the establishment of community-based resource management systems that not only protected elephant habitats but also provided livelihood benefits. For instance, communities protected vast areas of pasture and developed income-generating activities, which improved local livelihoods and reduced conflicts over resources. This approach not only curbed poaching but also provided meaningful occupations for the youth, thereby reducing their vulnerability to recruitment by armed groups. The project's success in creating a resilient, community-driven conservation model highlights the potential of environmental stewardship to contribute to peace and socio-economic stability in conflict-prone areas.

Elephants in Gourma region, Mali, 2004. © Wild Foundation and Carlton Ward.

10. Towards adaptive, flexible, scalable programming

A common theme across the cases is the need for adaptive and flexible approaches in NbS programming. In settings with active conflict, the presence of armed groups and the potential for significant population displacements can shock social and economic systems, disrupting projects. Some projects have had to be halted when conflicts broke out, or curtailed due to risks to staff on the ground.

Conversely, environmental action itself can have unintended impacts on peace if it reduces livelihood options, creates new economic burdens, or results in unequal benefits across groups.[50] Indeed, poorly designed environmental approaches can contribute to dynamics that drive recruitment into armed groups or otherwise increase conflict risks, for example by creating new tensions over natural resources or unintentionally reducing livelihoods. In Kenya, for example, efforts to restore deforested stretches of the Mau Forest by evicting the inhabitants of settlements that had been established over the years contributed to significant inter-communal tensions, with discontent over the lack of consultation of affected communities fueled by ethnic and political factors.[51]

[50] For additional case studies, see Veit, P. G. and Benson, C. (2004). *When Parks and People Collide.* Carnegie Council for Ethics in International Affairs. https://www.carnegiecouncil.org/publications/archive/dialogue/2_11/section_2/4449; Mittal, A. and Fraser, E. (2018). *Losing the Serengeti: The Maasai Land That was to Run Forever.* The Oakland Institute. https://www.oaklandinstitute.org/tanzania-safari-businessesmaasai-losing-serengeti; Hsiao, E. (Y.-L.) (2020). Protecting protected areas in Bello: Learning from institutional design and conflict resilience in the Greater Virunga and Kidepo Landscapes. *Goettingen Journal of International Law,* 10, 67–110. https://doi.org/10.3249/1868-1581-10-1-hsiao; Hammill, A., Crawford, A., Craig, R., Malpas, R. and Matthew, R. (2009). *Conflict-Sensitive Conservation: Practitioners' Manual.* International Institute for Sustainable Development. https://www.iisd.org/system/files/publications/csc_manual.pdf.

[51] See, e.g., IGAD (2018). Dynamics of Conflicts in the Mau Forest Complex: Towards and Early Warning and Monitoring System.

In contrast, well-planned NbS projects can address a specific conflict trigger (e.g. a shock to livelihoods or access to key natural resources) and can generate a reduction in the risks of violence. Even more ambitiously, NbS can mitigate structural drivers of conflict, such as deeply rooted social inequality, or longstanding intercommunal tensions over land. The Mali Elephant Project appears to provide an example of such a positive outcome.

To manage the risks of unintended consequences, successful projects have adopted flexible, adaptive approaches. For example, in the DRC cases, corrupt conservation officials were a serious weak point in many of the projects, allowing for armed group activity in priority conservation arenas. By identifying these actors and targeting programming to address corruption, projects in Virunga Park were able to simultaneously improve conservation and reduce the risks of armed group activity. Similarly, programming to address the risks posed by environmental degradation in Burkina Faso referred to "ecosystem-based adaptation" as the method for addressing systemic risks to both the environment and communities.[52] A review of GEF-funded projects in Africa suggested that adaptive management approaches were fundamentally necessary for fluid, conflict-affected settings [14]. The final section reflects on how NbS projects can be developed as adaptive, flexible interventions in the fluid context of conflict.

When trees are cut as part of rehabilitation projects, the branches are spread over the earth, helping prevent further erosion during rain, and also protect grass seeds sprinkled amongst them from herbivores, 2022, Kenya. © NRT

[52] See https://www.iied.org/sites/default/files/pdfs/migrate/17630IIED.pdf.

03 Recommendations

Drawing on the findings from the review of NbS cases, as well as consultations with selected policymakers, practitioners and researchers, this section offers recommendations for

1. international and national policymakers; and
2. programmatic leads.

They are aimed at enhancing the practice, scale and impact of NbS for conflict prevention and peacebuilding.

RECOMMENDATIONS FOR POLICYMAKERS

01 BUILD POLICY COHERENCE ACROSS THE ENVIRONMENTAL, CLIMATE AND PEACE AND SECURITY AGENDAS

Such coherence would require two interrelated steps: **an elevation of environmental and climate dimensions** within the peace and security agenda of governments, and **an inclusion of peace** within environmental and climate agendas. By prioritizing NbS within peace and security agendas, policymakers can generate a shift towards more effective holistic responses.

Policymakers can also help to ensure greater coherence between the two sets of processes, identifying how NbS can contribute to peace goals and vice versa. At a time of strong downward pressure on budgets, synergies and more impactful use of funds is a strong incentive. Similarly, the main bodies addressing environmental commitments in the multilateral realm (e.g. the Rio Conventions, as well as the Sendai Framework and other relevant sectoral policy frameworks), which have already highlighted peace-related themes in recent COPs, could build upon the recognition of these linkages to further develop their own "agendas for peace," involving dedicated analysis and priorities linking nature to peace and security outcomes. This would help to enhance policy coherence, as well as strengthen coordination between sectors, leverage financing and improve overall impact.

02 INTEGRATE ENVIRONMENT, CLIMATE AND PEACE IN NATIONAL-LEVEL POLICY AND PLANNING

While awareness of the relationship between the environment, climate and peace has grown in recent years, the understanding of policymakers at national level remains underdeveloped. Many leaders continue to describe environmental management in "development only" terms, while peace and security is often siloed in defense ministries. Building on the work of the UN's Climate Security Mechanism and the efforts to advance the "climate security" agenda in high-level forums like the UN Security Council, greater efforts should be made by leaders to link environment, climate and peace in national policies, plans and programmes.

For example, greater emphasis should be placed on systematizing integrated analysis of environmental and climate-related risks to peace in National Biodiversity Strategies and Action Plans, National Climate Adaptation Plans (or indeed national prevention plans under the New Agenda for Peace). Further, NbS approaches should be included in policies and programmes that seek to respond to such risks, based on the clear finding from these cases that **NbS offer strong value for money and long-term benefits that cannot be replicated via other approaches.** Allocating more resources to national and local capacity building around NbS and peace is critical to this effort.[53]

03 INCREASE FINANCING FOR NBS IN FRAGILE, CONFLICT-AFFECTED AREAS

As the growing focus on peace at successive UNFCCC COPs, as well as the Convention on Biological Diversity's and Convention to Combat Desertification's respective COP16 meetings have demonstrated, there is momentum for increasing climate and environmental action in conflict-affected and fragile settings. **This momentum should be leveraged to generate far greater funding for NbS programming in such contexts, building on the evidence that NbS constitute an effective approach not only to addressing the triple planetary crisis, but also to reducing conflict risks.**[54] Options include greater allocations by international financial institutions, dedicated funding tracks under the COPs, a new window under the Global Environmental Facility and/or the Global Climate Fund, and public/private partnerships to de-risk investments. Increased funding for climate and environmental action in conflict-affected areas may also help to offset the recent downward trends in financing for peacebuilding in many parts of the world.

04 EXPAND THE CONCEPT OF "ENVIRONMENTAL JUSTICE"

The cases suggest that issues of justice matter a great deal in reducing the risks of violent conflict. Communities that are systematically excluded or targeted have a far higher chance of relapsing into conflict if their grievances are not addressed. NbS approaches that work towards greater accountability and avoiding harm appear to be effective at meeting this challenge, and could form part of a broader justice approach that also aligns with the Pathways for Peace paradigm.

More specifically, many of the cases suggest that direct work with law enforcement and the justice sector – ranging from support to legislation to direct involvement in criminal processes – can have a strong impact in reducing illicit activities and their role in driving conflict. While acknowledging the core meaning of "environmental justice" to be focused on equity and inclusion in our environmental responses, this additional ability of NbS to address more local and social grievances is an important value added. **Prioritizing justice within environmental programming could help to drive greater resources to the kinds of partnerships with law enforcement and judiciaries** that are having impact today.

[53] See Nature-based Solutions - NAP Global Network.

[54] For example, looking at the UN-earmarked funds in Somalia as a representative example, more funds flow into humanitarian and development than peacebuilding. The UN Multi-Partner Trust Fund Office in Somalia, since 2016 invested total of 986,132,696 USD in Somalia, out of which the Somalia Humanitarian Fund received 39% (385,857,204 USD, the Somalia Multi Window Trust Fund (development) received 49% (483,469,456 USD), and the Peacebuilding Fund received 5,2% (52,886,037 USD). This not only suggests an underinvestment in peacebuilding in Somalia but also prompts the argument that if implementing NbS as part of development and environmental projects of that 49 per cent funding distribution can provide opportunities for peace in Somalia, the aggregated impact could be higher than that achieved through the 5% funding directly dedicated to peacebuilding.

05 PROMOTE THE USE OF NBS IN POST-CONFLICT PEACEBUILDING INITIATIVES

Although the right to a clean, healthy and sustainable environment has been recognized as a human right by the UN General Assembly since 2022 (by emphasizing that environmental damage has negative implications on the effective enjoyment of all other human rights), NbS are not widely considered as a driver of peace in the traditional peacebuilding initiatives such as in disarmament, demobilization and reintegration (DDR), restorative justice and/or reconciliation processes. However, **NbS offer many entry points to peacebuilding** by linking environment protection with other human rights and social justice goals, by providing access to green and inclusive economic alternatives that are adapted to the reality of climate change and by strengthening social cohesion.

06 CAPITALIZE ON NBS TO STRENGTHEN WOMEN'S ROLES IN PEACEBUILDING

NbS programming offers important opportunities to enhance women's participation and leadership in peacebuilding. Not only do their gendered roles often provide women with legitimacy to engage in matters related to natural resources at community level, but crisis contexts can also lead to shifts in gender norms, behaviors and expectations that can provide entry points to bring traditionally marginalized groups into leadership and decision-making positions. If designed and implemented in a participatory manner, **NbS programming can thus provide opportunities for engaging women in new roles,** such as the governance of natural resources, or the resolution of natural resource-related disputes. At the same time, incorporating women's unique knowledge of natural resources – as providers of food, water, and energy – into the design of interventions can significantly strengthen NbS programming. In order to capitalize on these opportunities, it is critical to:

- integrate NbS approaches into Women, Peace and Security policies and action plans at both multilateral and national levels,
- scale up integrated programming on gender, environment, climate and peace, including through capacity-building, and
- ensure targeted financing for women in nature and climate finance.

07 IMPROVE KNOWLEDGE MANAGEMENT AROUND NBS FOR PEACE TO FOSTER SCALING

The present report is based upon a review of more than 40 cases, the impact of which has been unevenly documented. While the findings are empirically grounded, they also point to the need for far more rigorous and systematic knowledge generation, using multi-disciplinary approaches, to understand the causal connections between NbS and peace outcomes. Furthermore, NbS programming tends to be relatively small scale, addressing localized problems. This specificity is necessary to ensure a project is well tailored to a local challenge, but it also bakes in a limitation to broader impact. **To enhance global learning and help small-scale projects cascade and grow, the following should be considered:**

- create a research network or consortium on the topic to further document good practices and grow the evidence base;
- develop platforms for learning and exchange, where the lessons from one setting can be applied to others;
- and create repositories of good practice linked to donor engagement [14].

RECOMMENDATIONS FOR PROGRAMME DESIGN

01 ADOPT A SYSTEMS APPROACH TO THE ENVIRONMENT, CLIMATE, PEACE AND SECURITY

The most successful cases considered in this study involve the treatment of environmental, developmental, peace and security issues together, as part of an interrelated system. Indeed, experts on the environment are accustomed to systems thinking, because most environmental issues are imbedded in an interconnected ecosystem. The same is not true of conflict prevention and peacebuilding, where the dominant framework is political science. However, as the cases demonstrate, effective approaches to NbS in fragile, conflict-affected settings benefit from an understanding of interrelated social, political, and environmental systems. **Specifically, developing a strong political economy analysis of a setting – including how power and resources are allocated – will help drive more effective support that avoids some unintended consequences.**

02 EXTEND THE TIMEFRAME OF INTERVENTIONS

NbS often produce their most important results over a longer period of time than typical international interventions. While donors of course need to produce regular reports on progress, the cases considered in this study suggest that a longer timeframe for measuring the full impact of NbS would be helpful.[55] At the same time, identifying short-term impacts that can help to build confidence (e.g. immediate increases in job availability, or resources) is an important factor of success across the cases.

03 ESTABLISH SUSTAINED, FLEXIBLE FUNDING ARRANGEMENTS

Settings undergoing both environmental change and conflict are likely to evolve quickly. The cases where implementers were able to flexibly use funding, reprioritize, and allow local actors to drive new responses to changing circumstances seemed to fare better than those that maintained a static input-output model. One group of experts, drawing on an extensive review of GEF-funded projects, proposed that **NbS projects should have "contingent costs" built in, to ensure a more flexible response in the case of changed circumstances** [14]. This could become a policy-level decision by major donors.

04 FOCUS ON LIVELIHOODS AND INCLUSION

One of the most common factors in successful NbS projects is an ability to positively affect livelihoods. Whether reducing the pool of recruitment for armed groups, de-escalating risks over resources, or creating opportunities for youth and women's economic empowerment, livelihood creation appears to be a fruitful contribution of NbS. This may mean decisions at the policy level to locate NbS programming in different ministries, or align them with portfolios beyond the environmental sector. Furthermore, **including a specific lens on inequality and exclusion will help to address the risks that some resources may be captured or unfairly allocated.**

[55] See, https://ec.europa.eu/echo/files/policies/environment/guidance_on_the_operationalisation_of_the_mers_for_eu-funded_humanitarian_aid_operations.pdf

05 ENSURE STRONG ACCOUNTABILITY FRAMEWORKS FOR EACH CO-BENEFIT OF NBS

A common criticism of NbS is that while social and economic co-benefits are often claimed, they are rarely measured, with the result that positive impacts on communities remain implicit and unsupported by evidence. Projects that integrate metrics to evaluate the impacts of NbS on socio-economic vulnerabilities and inclusion with accounting for nature can not only stem skepticism from local communities, but also **provide critical evidence of the value of such approaches for peace.**

06 INCLUDE RISK MITIGATION FROM THE OUTSET

Nearly every case considered included some risks to NbS programming. This could be direct attacks by armed groups, the effects of large-scale displacement, or deeper social and political risks. Rather than shy away from these risks, effective NbS programming appears to include risk mitigation from the outset. Ultimately, NbS programming in these settings may need to **shift towards a less risk-averse mindset.**

07 GET STATE-LEVEL BUY-IN

Many of the cases included maladaptation by the state, or faced sovereignty challenges by national governments that did not wish to securitize their development and/or environmental agenda. Some of the most successful projects involved **partnerships with national actors and capacity building efforts with state institutions.** Failure to have national-level buy-in was a serious impediment to success in many settings.

08 ALIGN NBS INITIATIVES WITH HUMAN RIGHTS STANDARDS AND COMMITMENTS, USING A HUMAN RIGHTS-BASED APPROACH

Some NbS initiatives do not produce the desired sustainable results because they fail to address some of the basic drivers of exclusion and inequality at the design phase. A human rights based approach

- **prioritizes capacity-building** of the national and local government institutions and civil society,
- **ensures participation of communities** in the design and execution of the projects,
- **practices transparency** by making information about the initiative accessible to the community in their language
- **ensures accountability** to the target communities and the government by providing monitoring, evaluation and complaint procedures,
- **ensures that the interventions do not discriminate** involuntarily against marginalized groups, with particular attention to women, children and the elderly, disabled and LGBTI individuals.

Annex 1 List of reviewed projects and case studies

Cases provided by UNEP See the online Catalog of Nature-based Solutions for Peace

1. **The Mali Elephant Project** (Chengeta Wildlife, MINUSMA, International Conservation Fund of Canada, WILD Foundation, Local Communities)
2. **Share Resources, Joint Solutions: Nature Conservation in Myanmar** (Dawei Development Association, Green Network Mergui Archipelago, IUCN.NL, Southern Youth, TRIP NET)
3. **Shared Resources, Joint Solutions: Strengthening Community Management in Papua, Indonesia** (IUCN.NL, YADUPA)
4. **The Kibira Peace Forest (Central African Republic)** (Central Africa Forest Initiative, Communities of Hope, Emergent, GEF, GCF, Renewable Energy Performance Platform, UNCDF)
5. **The Wuasikamas Movement of the Inga People in Aponte for Land Rights, Governance and Conservation (Colombia)** (The Wuasikamas Movement of the Inga People)
6. **Shared Prosperity Through Cooperation in Border Regions of Kyrgyzstan and Uzbekistan** (FAO, UNFPA)
7. **Conflict-Sensitive Community-Based Conservation in Eastern DRC** (IISD, WCS)
8. **Strengthening of Recovery and Reintegration of Women and Girls through Climate-Resilient Agriculture for Peace and Post-Conflict Reconciliation in the Central African Republic** (UN WOMEN, FAO)
9. **Promoting Women's Engagement in Waste Management to Prevent Conflict in Sri Lanka** (UNOPS, UN WOMEN)
10. **Mitigating Localized Resource-based Conflicts and Increasing Community Resilience (Sierra Leone)** (UNDP, WFP)
11. **Promoting Inclusive Action in Peacebuilding (Somalia)** (FAO, IOM)
12. **Building Resilience to Climate-related Security Risks in West Karnali, Nepal** (UNEP, Practical Action)
13. **The Potato Park Project in Peru** (Association of Communities of the Potato Park)
14. **Governance for Ecosystem-based Adaptation: Transforming Evidence into Change (El Salvador)** (IUCN)
15. **Amical Bè Ôko Project (Chad)** (Amical Bè Ôko)
16. **The Doi Tung Development Project (Thailand)** (The Mae Fah Luang Foundation)
17. **Strengthening Community Coping Mechanisms Against Risks of Climate-Induced Conflicts (The Gambia)** (Gambia Red Cross Society, ITC, UNFPA, WFP)
18. **Building Resilience to Climate-related Security Risks in North Darfur, Sudan** (UNEP, Practical Action)

Cases from the Global Environmental Facility[56]

19 **Forest Biodiversity in the Albertine Rift** (12 projects across Burundi, DRC, Rwanda, Tanzania)

20 **Developing an Integrated Protected Cambodia** (2001-2007)

21 **Area System for the Cardamom Mountains, Cambodia** (2002-2008)

22 **Biodiversity Conservation and Mali** (2003-2013)

23 **Participatory Sustainable Management of Natural Resources in the Inner Niger Delta & its Transition Areas, Mopti Region**

24 **Gourma Biodiversity Conservation Mali** (2001-2013)

25 **Enabling Sustainable Dryland Land in Mali** (2005-2013)

26 **Promotion of the Use of Agrofuels in Mali** (2011-2018)

27 **Knowledge-based Management and Governance of the Niger Basin and the Lullemeden-Taoudeni/Tanezrouft Aquifer system** (2018-2023)

28 **Capacity Building for Sustainable Afghanistan** (2007-2010)

29 **Forest and Nature Democratic Republic of the Congo** (2008-2015)

30 **Restoration, Protection and International Sustainable Use of the Waters in Sistan Basin, Afghanistan** (2008-2010)

31 **Capacity Building for Land degradation in Afghanistan** (2007-2010)

32 **Conservation of Snow Leopards Afghanistan** (2018-2023)

33 **Biodiversity and Biodiversity in Virachey National Park, Cambodia** (1999-2008)

34 **Tonle Sap Conservation Biodiversity Project, Cambodia** (2004-2012)

35 **Contributing to the integrated management of biodiversity of the Pacific region of Colombia to build peace** (2019-2023)[74]

36 **Connectivity and biodiversity conservation in the Colombian Amazon** (2017-2023)

37 **Safeguarding and Restoring Lebanon's Woodland Resources** (2008-2014)[58]

38 **Forest and Mountain Protected Areas Project, the Balkans** (2008-2014)

39 **Mediterranean Sea Programme (MedProgramme): Enhancing Environmental Security** (2016-present)[59]

[56] These cases were identified via the Global Environment Facility database: https://www.thegef.org/projects-operations/database. Additional assessment materials can be found in C. Bruch *et al.* (2024). *Conflict Sensitive Conservation: Lessons from the Global Environmental Facility.* Routledge.

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