NATURE-BASED SOLUTIONS FOR ADAPTATION

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COMMON GROUND: Gender-Responsive, Conflict-Sensitive Nature-Based Solutions in Fragile and Conflict-Affected Contexts

Climate change and biodiversity loss do not act in isolation. In fragile and conflict-affected settings, they interact with resource scarcity, weak governance, and gender inequality to raise the risk of local violence. This brief draws on evidence from the climate–peace–security field and on-the-ground experience from Partnering for Climate (P4C) and Global Ecosystem-based Adaptation (EbA) Fund projects to show how gender-responsive, conflict-sensitive Nature-based Solutions (NbS) offer a platform for cooperation, restoring both ecosystems and the social trust that sustains peace.

KEY MESSAGES AT A GLANCE

1. NbS can ease tensions linked to resource pressure — including scarcity, unequal access, and weak governance — by restoring and jointly managing natural resources.
2. Gender-responsive, conflict-sensitive design supports “do no harm” and helps prevent maladaptation in conflict-affected contexts.
3. Participatory NbS can serve as a platform for “environmental peacemaking” and social cohesion.
4. Strengthening women's role as environmental leaders transforms governance and peacebuilding outcomes.
5. Securing the rights, customary governance, and leadership of Indigenous Peoples and local communities is a cornerstone of sustainable NbS and regional stability.

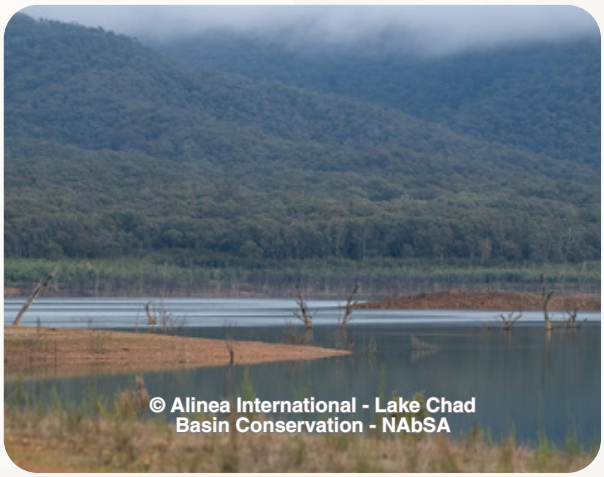
6. Youth-led NbS and intergenerational dialogue are emerging as vital components of the climate–peace–security nexus.

THE CLIMATE–GENDER–PEACE NEXUS

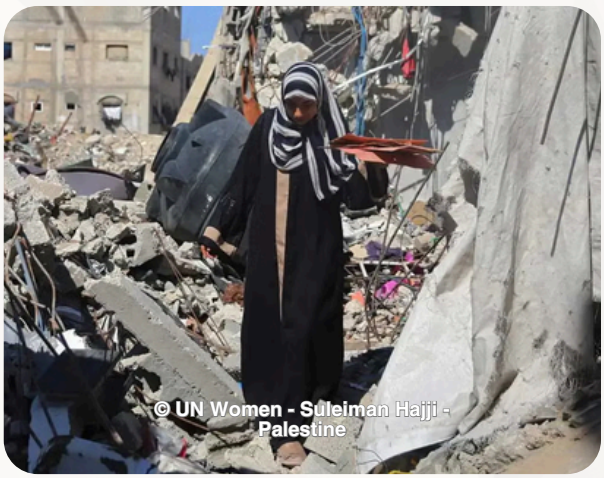
Disputes over grazing land, water, and forests usually trace back to land ownership and tenure systems, and to disruptive changes within them, since these systems determine who has secure, equitable access to resources in the first place. Scarcity is rarely the root cause of conflict; more often, it is the flashpoint that ignites tensions unequal or contested tenure has already created. By shrinking the resource base, climate change and biodiversity loss make a flashpoint more likely to occur and escalate — usually in combination with existing tenure disputes and governance gaps, rather than as a cause on its own (**Ide, 2025**).

The link between environmental health and security also shows up at a global scale: nine in ten major armed conflicts between 1950 and 2000 occurred in countries containing biodiversity hotspots, and 80% took place directly within them (**Hanson et al., 2009**). This pattern likely reflects shared underlying drivers — weak governance, poverty, and contested access to resources — rather than environmental degradation causing conflict by itself. What it does show is that protecting and restoring ecosystems has a real role to play in preventing conflict, alongside other efforts, not instead of them.

Climate change acts as a "threat multiplier": it intensifies a range of existing pressures—competition over land and water, weak governance, disrupted livelihoods, and pre-existing inequality—that together raise the risk of local violence. Gender-responsive, conflict-sensitive NbS can address several of these pressures. By restoring ecosystems, strengthening inclusive governance of shared resources, and advancing human rights, they can ease friction between competing groups (for example, pastoralists and farmers) and help communities become more resilient to conflict. (**World Bank, 2024**; **UNDP, 2024**; **IISD, 2025**; **UNEP, 2024**)



These dynamics show up clearly in global data. UNHCR estimates that 90 million forcibly displaced people live in countries with high-to-extreme exposure to climate-related hazards, and nearly half of them are contending with conflict and climate change at the same time (**UNHCR, 2024**). Climate-driven disasters are also linked to a documented rise in gender-based violence: one study found a 28% increase in femicide during heatwaves, and researchers project that without action, climate change could be a contributing factor in one in every ten cases of intimate partner violence by the end of the century. (**UN Women, 2025b**; **Spotlight Initiative, 2025**)



Left unaddressed, these pressures compound over time: current projections suggest climate change could push up to 158 million more women and girls into poverty by 2050 — 16 million more than the number of men and boys affected. (**UN Women, 2024)**

Research consistently shows that Indigenous women are central knowledge-holders and decision-makers in biodiversity stewardship — a role this brief returns to throughout. (**Agarwal, 2009**; **IPBES, 2019**)

Nature-based Solutions (NbS): actions to protect, conserve, restore, sustainably use, and manage natural or modified ecosystems that address social, economic, and environmental challenges effectively and adaptively, while providing human well-being, ecosystem services, resilience, and biodiversity benefits (UNEA-5, 2020 Resolution).*

1. RESTORING RESOURCES, STRENGTHENING GOVERNANCE

Land tenure and ownership systems shape who has secure, equitable access to natural resources —and disruptive changes to those systems are often the root of disputes over grazing land, water, and forests. Restoring degraded ecosystems and improving access to shared resources can ease the tensions that follow, provided communities can manage those resources jointly and address the underlying governance question, not just the resource shortfall.

Rangeland restoration, aquifer recharge, and community-managed water points, for example, can increase the availability and reliability of natural resources for competing user groups such as pastoralists and farmers (**Davies et al., 2025**) — a precondition for easing, though not a guarantee of easing, the friction that shortages can cause.

Collaborative environmental management can also support peace across borders, easing resource-pressure dynamics and reducing tension in regions prone to climate-driven shocks. (**MEDRC, 2023**; **IISD, 2025**; **UNDP, 2024a**)

This overlap between resource management and conflict is not incidental: more than a third of Global Environment Facility-funded conservation projects are implemented in active conflict settings, and close to 90% in fragile ones— meaning natural resource programming and peacebuilding already operate in the same spaces, whether or not they are designed to. (**UNEP, 2024**)

Restoring resource quantity or quality is not enough on its own, however. Design that also strengthens local governance and dispute-resolution capacity for shared resources tends to be more durable, since easing scarcity does not automatically fix weak or unequal decision-making structures. (**UN Interagency Framework Team for Preventive Action, 2012**; **UNEP, 2024**)

The pressure illustrated below is not unique to Binga: 2.3 billion people now live in water-stressed countries, and women carry responsibility for water collection in roughly 80% of households without water on the premises. (UN Women, 2026)

Case Study 1: Locally-Led Water Governance — Binga District, Zimbabwe (LINCZ)

In Binga district, an area affected by drought and a persistently low water table, women in the Saba/Lubanda Ward can spend most of a day queuing at a single community borehole. Some households arrive with as many as 15 buckets at a time, sometimes draining a slow-recharging borehole for the entire community and leaving others to wait until the next day—a source of recurring tension and arguments among women in the queue.

To manage this scarcity, the community came together, facilitated by local leadership, and agreed on a shared allocation rule: each household could draw a fixed number of buckets per day. As the water table has continued to drop, the community has renegotiated that limit downward, from four buckets to three. Community members report that this locally agreed system has reduced tensions at the borehole while ensuring more equitable access for all households.

This example demonstrates the importance of community-led conflict resolution mechanisms, and the potential for NbS initiatives to increase access to essential resources while also strengthening existing community capacity for resolving conflict.

The case also illustrates the safety dimension of resource scarcity: women who collect water after dark, when queues are shortest, face heightened risk of gender-based violence, other forms of violence, and dangerous wildlife encounters on the walk home — underscoring why NbS and water-access interventions in fragile, drought-prone contexts must be designed with women's safety and time burden explicitly in mind.

*Source: Wendy Kroeker and Hannah Janzen, **LINCZ Learning & Research Hub**, 2026.*

Global EbA Fund spotlight: Restoring Nature & Peace Threatened by Climate Change — Chyulu Hills, Kenya

Conservation International, in partnership with Apple, has restored roughly 11,000 hectares of grassland in Kenya's Chyulu Hills since 2021. A separate Global EbA Fund-supported study surveying more than 1,500 households found that as restoration expanded, both human–wildlife conflict and social conflict among neighbouring communities declined, alongside residents' overall sense of insecurity (Donatti et al., 2025) — one of the more rigorously measured examples yet of what partners describe as a "peace dividend" from restoration.

2. DESIGNING FOR "DO NO HARM"

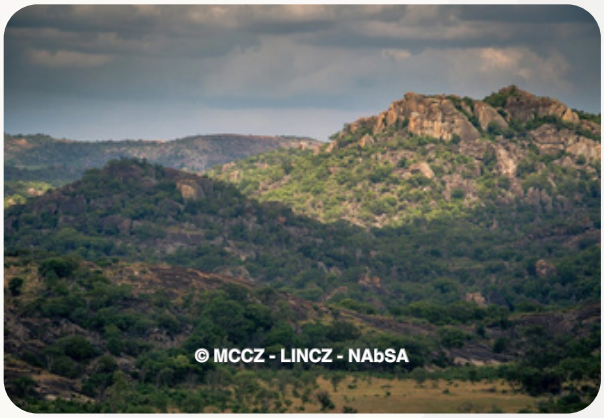
In fragile settings, conflict or violence can limit access to the resources people need to cope with environmental stress, making it harder for women and men to adapt, prepare, or recover from climate-related risks.

Climate projects that fail to account for existing power dynamics risk exacerbating inequalities, increasing gender-based violence, or favoring one group over another — which can reignite underlying tensions. Projects need to be tailored to the specific conflict dynamics, actors, and grievances of the place where they operate.

The risk runs in both directions. A review of 40 conflict-affected NbS projects found that conflict commonly threatens project success through physical insecurity, social distrust, economic disruption, political fragility, and weak governance —which is why conflict-sensitivity must be built into design from the outset, not added afterward. (UNEP, 2024)

Inclusive NbS makes sure women and marginalized groups are leaders and active

decision-makers in how resources are allocated. This helps prevent “maladaptation” — where one group's resilience is built at another group's expense. (Castañeda et al., 2020; UNEP, UN Women, UNDP & DPPA, 2020; UN Women, 2025)



3. A PLATFORM FOR ENVIRONMENTAL PEACEMAKING

Collaborative governance of a shared ecosystem—such as a transboundary watershed or a community forest—can offer a less charged space for dialogue between conflicting parties. Managing an ecosystem together helps communities see that their survival depends on each other, turning resource management into a tool for reconciliation. (UNEP, 2024; PAX, 2024)

That potential is often left on the table. In several UN-reviewed cases, NbS programming ran alongside formal mediation and negotiation efforts with little connection between the two — generating valuable community mapping, trust, and analysis that never fed into the peace process itself. Designing NbS and peacemaking together from the outset, rather than as parallel tracks, is where much of the untapped potential lies. (UNEP, 2024)

Case Study 2: Community Dialogue for Restoration — Lôh-Djiboua & Nawa Regions, Côte d'Ivoire

Ecological restoration in Côte d'Ivoire's Lôh-Djiboua and Nawa regions was long carried out without genuine involvement of local populations, limiting how well interventions took hold. The **Nature-Based Climate Adaptation Project in the Guinean Forests of West Africa** changed this by placing rural communities—women, men, youth, and traditional leaders—at the center of decision-making.

Through 84 participatory community dialogues (four sessions per locality), residents identified the causes of forest degradation and collaboratively defined priority restoration sites, selected suitable tree species, and adopted local rules for sustainable management. The process led to the creation of community restoration committees in each locality—60% of whose members are women—who now oversee ongoing monitoring, including through a digital tracking application, and serve as pillars of participatory governance, ecological monitoring, and coordination with local authorities and technical partners. Communities have identified and validated more than 1,500 hectares for restoration, and project partners report strengthened trust among communities, local authorities, and technical actors as a direct outcome of the dialogue process.

“Before, projects would come and go, and then disappear. And it didn't work because we weren't involved. This time, it's our business because we're being put at the center of the discussions and decisions.”

— Bafao restoration committee

Case Study 3: Healing the land and empowering communities through gully reclamation — Mwenezi District, Zimbabwe (LINCZ)

In Zimbabwe's Mwenezi district, easily eroded soils and land degradation have led to deep gullies carving across the landscape, cutting across grazing land and cropland, reducing available pasture for livestock production, washing away productive cropland, and endangering homes. The Locally-led Indigenous Nature-based Solutions for Climate Change Adaptation in Zimbabwe (LINCZ) project responded with a community-driven gully reclamation initiative across six wards, pairing ecological restoration with deliberate social inclusion.

Using a cash-for-work model, 600 community members built gabion trenches, contour ridges, and storm drains to manage water, prevent erosion, and stabilise the gullies. The initiative adopted a no-discrimination policy guaranteeing equal opportunity to participate regardless of status, background, or social standing — an approach communities credit with strengthening unity across the six wards.

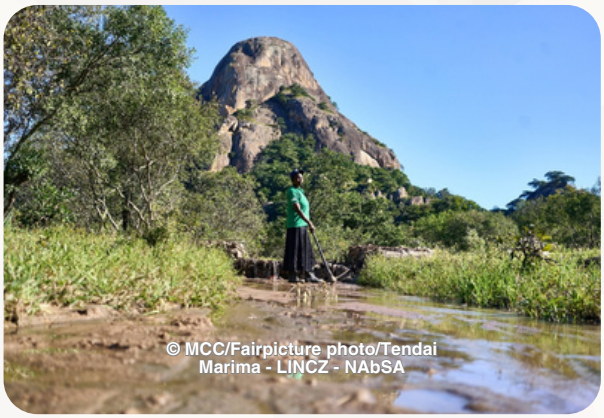
Each ward established a gully reclamation committee — ten committees and 78 members in total, drawn from across genders — to coordinate the work, manage resources, and open space for community dialogue and local decision-making. Women were particularly given space to lead in gully planning and evaluation processes. Recognising that nursing mothers were often excluded from community activities, the project introduced child-minding arrangements at gully sites so women could participate fully.

Nine hectares of degraded land have been restored across ten gullies so far — roughly the area of 17 football fields — and community members report that the shared effort has rebuilt trust and cooperation across gender and generational lines, alongside the short-term income the cash-for-work model provided.

“Before the LINCZ project, women, especially those with young children, often found it difficult to participate in community activities and decision-making processes. The child-minding arrangements made it possible for us to contribute our ideas and take part in the gully restoration work. Through the gully committee, our voices are now heard.”

— Mai Mbaimbai, Village Health Worker and gully committee member, Mavambo, Ward 6

Source: Score Against Poverty, LINCZ Learning & Research Hub, 2026.



4. WOMEN AS ENVIRONMENTAL LEADERS

Women often manage household natural resources and hold unique local knowledge of water security and seed preservation. Indigenous women, in particular, play a central role in maintaining food security as keepers of medicinal plant knowledge and ecological practice—traditional knowledge that is key to nature-based solutions for climate change and sustainable development. (**FAO, 2020**)

Strengthening women's agency, leadership, and participation in NbS shifts power dynamics and promotes mediation styles that prioritize long-term community resilience over short-term resource extraction. (**UNEP, UN Women, UNDP & DPPA, 2020**; **OECD, 2021**)

Crisis and displacement can also shift gender norms in ways that open new entry points for women's leadership in natural-resource governance and dispute resolution — one of the most promising, if still underused, avenues for expanding women's role in peacebuilding. (**UNEP, 2024**)

In Zimbabwe, women's leadership on wetland management committees illustrates this in practice: committee seats give women a direct channel to represent their needs and priorities in the local by-laws that protect and manage wetlands, aligning

Case Study 4: Gender Model Family Approach — Lake Chad Basin (Chad, Cameroon & Niger)

The Lake Chad Basin Conservation Project's Gender Model Family (GMF) approach, through which households model more equitable decision-making, shared responsibilities, women's economic empowerment, and sustainable natural resource management, demonstrates how integrating gender equality with nature-based solutions (NbS) can strengthen community resilience and environmental peacebuilding. By engaging male influencers, community leaders, and mentor households, the approach has opened dialogue among farmers, herders, and local communities about conflicts linked to access to natural resources—helping reduce tensions, promote collaborative resource management, and gradually expand women's decision-making spaces.

In Niger's Guidimouni and Lassouri communities, mentor couples lead assisted natural regeneration and tree-planting activities and help maintain community water basins, while households have introduced fenced enclosures to reduce free grazing and prevent conflicts between livestock owners and neighboring farmers. In Maga and Pette, Cameroon, GMF champions combine community sensitization on sustainable fishing practices with nursery coordination and natural-resource conflict resolution. In Mailao and Mandelia, Chad, income-generating activities such as moringa soap and eco-friendly charcoal production have diversified women's incomes alongside restoration work.

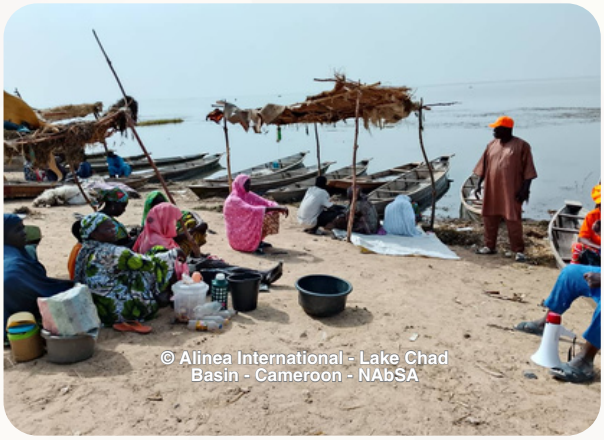
The approach also transforms household dynamics. In Mailao, Georges Danga and his wife Joséphine Alingue describe how project dialogue on gender equality and women's access to land led Georges to give Joséphine a rice field to farm independently, strengthening her economic autonomy and the couple's shared household decision-making.

Source: Alinea International, **Lake Chad Basin Conservation Project**.

"I understood that God created men and women to complement one another. Giving a field to my wife did not reduce my value as a man — it strengthened peace and joy within our home."

— Georges and Joséphine, Gender Model Family, Mailao, Chad

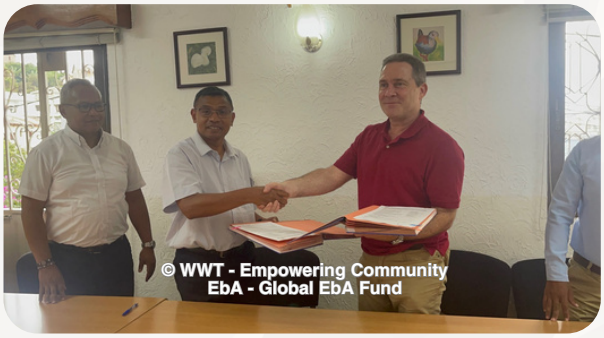
conservation rules with the realities of women's daily interaction with those resources. Women's full and meaningful participation also strengthens the flow of Indigenous knowledge into NbS design, and women leaders report that their visibility encourages broader participation by other women and girls. (LINCZ project learning, 2026)



Global EbA Fund spotlight: Empowering Community EbA in Madagascar's Wetlands — Sofia Region, Madagascar

The Wildfowl & Wetlands Trust (WWT) is strengthening community-led local laws (Dina, upheld by local resource-management associations known as VOIs) to resolve disputes between fishers, farmers, and charcoal producers competing for the same wetland resources. Women are deliberately integrated into these governance structures, helping ensure the benefits of restored wetlands are shared equitably.

Source: Wildfowl & Wetlands Trust (WWT), **Global EbA Fund project**.



5. INDIGENOUS PEOPLES, CUSTOMARY GOVERNANCE & STABILITY

Indigenous Peoples and local communities are essential stewards of the earth's natural assets, sustainably managing approximately 80% of the world's remaining biodiversity. (**Redvers et al., 2023**)

NbS projects that ignore customary land rights can lead to the displacement of Indigenous and local populations, fuelling social unrest and creating new grievances. Centering Indigenous knowledge systems ensures restoration efforts are culturally appropriate and draw on centuries of traditional ecological expertise.

Strengthening Indigenous and local tenure and respecting the governance systems and leadership of Indigenous Peoples and local communities are fundamental to the success of nature-based resilience and to preventing resource-based social unrest. (**UNDP, 2024**; **ReliefWeb, 2025**)

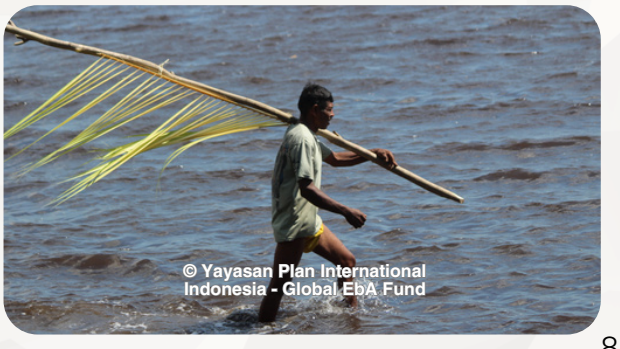
Zimbabwe's LINCZ project offers a concrete illustration of what this looks like in practice. Integrating Indigenous knowledge systems (IKS) into NbS design has made interventions more locally relevant, cost-effective, and culturally accepted: traditional taboos restricting activities such as washing, bathing, or grass-burning in wetlands, and prohibitions on cutting trees in sacred forests and hills, are being leveraged directly for wetland protection and biodiversity conservation, while local bio-indicators are helping build community trust in scientific early-warning and weather-forecasting systems. (LINCZ project learning, 2026)

Awareness-raising and community dialogues taking place through the project's conflict-management training have also identified natural resources as a recurring source of local tension. Unsustainable harvesting of mopane worms, compounded by climate-driven decline in mopane woodland, has sharpened disputes when harvesters from outside a community compete with residents for a shrinking resource — underscoring why sustainable natural resource management is itself a conflict-prevention strategy, not only an environmental one. (**Ntuthuko Ngwenya, 2026)**; LINCZ project learning, 2026)

6. YOUTH-LED NBS AND INTERGENERATIONAL DIALOGUE

Research highlights that youth in conflict-affected contexts are uniquely positioned to lead NbS, often bridging traditional knowledge and modern technology, such as digital mapping for restoration. Intergenerational action helps ensure that NbS are designed for long-term sustainability, preventing a “hollowing out” of peace agreements as younger generations face the brunt of climate shocks.

Stakeholders are increasingly scaling up youth-led initiatives to foster intergenerational action on climate and peace, moving beyond seeing youth solely as a “vulnerable” group to seeing them as active peacebuilders. (**FBA, UNDP, and SIPRI, 2024**)



Global EbA Fund spotlight: Empowering Youth-Led EbA for Coastal Resilience — Lembata Island, Indonesia

Yayasan Plan International Indonesia is supporting young people in reviving "Muro," a customary social contract that has traditionally governed shared use of coastal and marine resources. By placing youth at the center of reviving this indigenous governance mechanism, the project builds intergenerational stewardship of coastal resources while giving young people a constructive, recognized role in community decision-making.

Source: Yayasan Plan International Indonesia, **Global EbA Fund project**.

CONCLUSION: COMMON GROUND

The collective evidence points to a defining shift: Nature-based Solutions are not just environmental projects — they can turn contested ground into common ground. In fragile and conflict-affected regions, restoring the same land, water, and forests that once divided communities can become the basis for rebuilding trust, offering a rare "peace dividend" alongside ecological recovery.

That potential remains dormant without two non-negotiable pillars: conflict-sensitivity and gender-transformative leadership. For NbS to be effective, they must move beyond "do no harm" to actively address the power imbalances that fuel instability and inequality. Common ground emerges when communities — guided by the leadership, knowledge systems, and self-determined governance of women, youth, and Indigenous Peoples — manage their natural capital together, on terms they define themselves.

ACKNOWLEDGEMENTS

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TOOLS AND RESOURCES FOR PRACTITIONERS

For teams designing or reviewing gender-responsive, conflict-sensitive NbS programming, the following tools offer practical starting points.

- **Do No Harm Framework (CDA Collaborative Learning):** The foundational conflict-sensitivity analysis tool for assessing how any intervention interacts with local divisions and connectors. https://www.cdacollaborative.org/cdaproject/the-do-no-harm-project/
- **Do No Harm in Land Tenure and Property Rights (CDA Collaborative Learning):** A sector-specific guide for designing conflict-sensitive land and natural-resource programming, directly relevant to NbS involving grazing, water, or forest access. https://www.cdacollaborative.org/publication/do-no-harm-in-land-tenure-and-property-rights-designing-and-implementing-conflict-sensitive-land-programs/
- **Land and Conflict Toolkit (UN Interagency Framework Team for Preventive Action):** UN guidance and tools for preventing and managing natural resource and land conflicts. https://static.un.org/en/land-natural-resources-conflict/land-conflict.shtml
- **Conflict-Sensitive Nature-based Solutions Guide (IISD):** A practical guide to integrating conflict sensitivity and peacebuilding into NbS design for climate adaptation. https://www.iisd.org/system/files/2025-10/conflict-sensitive-nature-based-solutions.pdf
- **Catalogue of Nature-based Solutions for Peace & Security (PAX/UNEP):** A searchable collection of vetted NbS case studies with peace and security insights, useful for identifying comparable projects and lessons. https://www.environmentalpeacebuilding.org/library/toolkits-and-guidance/show/d3f8134afc86
- **Environmental Peacebuilding Toolkits & Guidance Library (Environmental Peacebuilding Association):** A broader hub of toolkits, case studies, and guidance across environmental peacebuilding practice. https://www.environmentalpeacebuilding.org/library/toolkits-and-guidance
- **Environment and Gender Information platform / EGI (IUCN):** Data and indicators on gender-environment linkages to inform gender-responsive programme design and monitoring. https://genderandenvironment.org/egi/
- **Gender Equality and Climate Policy Scorecard (UN Women):** A tool for assessing how national climate policies address gender dimensions, useful for aligning NbS design with national commitments. https://www.unwomen.org/en/climate-scorecard
- **Gender and Conflict Analysis Toolkit for Peacebuilders (Conciliation Resources):** A conceptual toolkit with practical framing and exercises for analysing how gender and conflict interact. https://www.c-r.org/resource/gender-and-conflict-analysis-toolkit-peacebuilders
- **Gender-Sensitive Conflict Analysis Facilitator's Guide (Conciliation Resources):** A more in-depth guide based on a systems analysis of conflict, for facilitators running gender-sensitive conflict analysis processes. https://www.c-r.org/learning-hub/gender-sensitive-conflict-analysis-facilitators-guide
- **Conflict-Sensitivity Conservation: Principles & Practice (IUCN Academy):** A free online course, available in English, French and Spanish, covering the same conflict-sensitivity principles this brief draws on. https://iucnacademy.org/courses/conflict-sensitivity-conservation-principles-practice/