



GROWING RESILIENCE

**Nature-based Solutions
for Adaptation**



**Eleven case studies from Canada's
Partnering for Climate Portfolio**



Photo: Plan International

→ About NAbSA

NAbSA¹ - Nature-based Solutions for climate Adaptation: monitoring & impact evaluation - is the technical community of practice hosted by the International Union for Conservation of Nature (IUCN). Its programme of work is co-created with Global Affairs Canada's Partnering for Climate (P4C) community. NAbSA's mission is to accelerate climate resilience in Sub-Saharan Africa through inclusive, gender-responsive Nature-based Solutions (NbS) that safeguard biodiversity, empower communities and strengthen adaptation outcomes. NAbSA supports adaptation and resilience efforts across Sub-Saharan Africa by embedding high-integrity, gender-responsive and biodiversity-informed climate actions at the core of project design, implementation and monitoring. NAbSA also serves as a platform for capacity strengthening, knowledge sharing, peer-to-peer learning and policy influence. It documents lessons and best practices, convenes dialogues, connects networks and showcases innovative actions from local to global levels, reinforcing the role of nature in building resilience and reducing poverty in vulnerable communities.

1 <https://nabsaclimate.org/>

→ Acknowledgements

We would like to acknowledge the contributions, reviews, and support provided by the P4C project partners, who conducted assessments and contributed content and insights for this report. We also extend our thanks to Dorsa Sheikholeslami for providing the core content for this document; to Zoe Jafflin and Verónica Ruiz for their technical leadership and guidance; and to Estudio Relativo for the design.



Executive Summary

This report presents an assessment of 11 projects implemented in Sub-Saharan Africa under Canada's Partnering for Climate portfolio. Together, these projects demonstrate strong, practical contributions to climate change adaptation through gender-responsive Nature-based Solutions.

The report documents project actions that advance climate adaptation, biodiversity conservation, ecosystem resilience, and broader nature-related benefits. It also identifies opportunities to further strengthen and position these interventions within the Nature-based Solutions framework. In doing so, the report highlights not only areas for improvement, but also the significant achievements, innovation, and leadership demonstrated by project teams and partners across diverse contexts.

The report is accompanied by a curated list of tools and resources used during project design, implementation, monitoring, and assessment. These resources are intended to support practitioners, project teams, and decision-makers in designing, implementing, and evaluating both current and future Nature-based Solutions projects.

Project assessments were prepared using the first edition of the IUCN Global Standard for Nature-based Solutions and its associated self-assessment tool. During the assessment process, [the second edition of the IUCN Global Standard for Nature-based Solutions](#) was released. While some indicators have been revised between the first and second editions, the overall structure and focus of the Standard Criteria remain consistent. As such, the findings, observations, and recommendations presented in this report remain relevant to the updated version of the Standard.

Introduction

Historically, nature conservation has often been treated as a secondary concern, or even as a constraint on economic development. Yet growing scientific evidence shows that healthy ecosystems are fundamental to human wellbeing, quality of life, and long-term economic prosperity. Failure to safeguard nature not only perpetuates unsustainable development pathways, but also overlooks the critical role that natural systems play in addressing interconnected societal challenges, including climate change, disaster risk reduction, food and water security, and human health and wellbeing.

Working at the nexus of nature, climate, and people is therefore essential to ensure that adaptation and resilience efforts are both integrated and inclusive. Nature-based Solutions (NbS) offer an important alternative to conventional approaches by harnessing ecosystem functions and natural processes to generate resilient, sustainable, and socially equitable outcomes. Their successful application,

however, depends on a structured, evidence-based, and inclusive approach to the planning and implementation of nature-climate actions, while following a rights-based approach.

Building on existing methods and tools, such an approach should embed co-creation, gender responsiveness, and social inclusion throughout the process to ensure the fair distribution of benefits, address entrenched power imbalances, and meaningfully incorporate the knowledge, perspectives, and leadership of marginalized groups, including women, youth, persons with disabilities, and Indigenous Peoples. Within this context, NbS can only be sustainable if promoted through a gender-transformative lens. As women and girls are disproportionately affected by climate change and insecurity in the region, the projects assessed in this report pursue gender-transformative outcomes and are implemented with a conflict-sensitive lens.

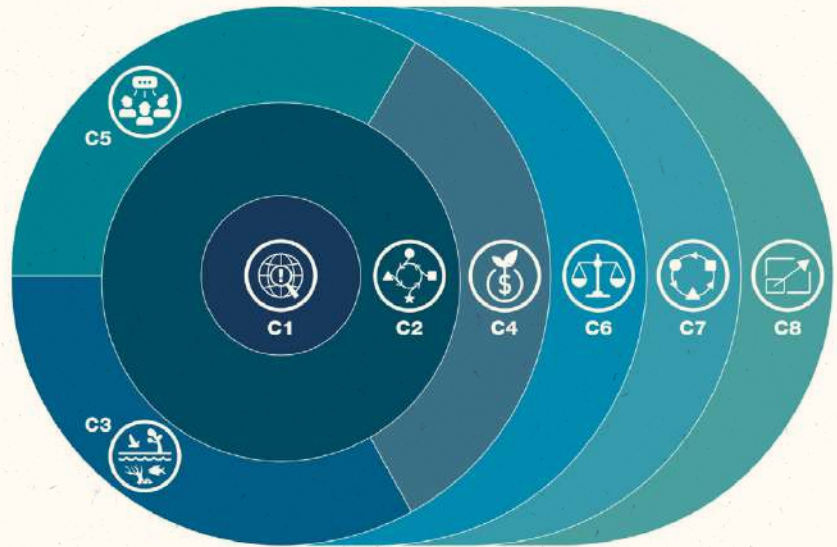
NbS are “actions to protect, conserve, restore, sustainably use, and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems, which address social, economic, and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services and resilience and biodiversity benefits.”²

2 As defined at the 5th United Nations Environment Assembly (UNEA 5.2), Nature-based Solutions are “actions to protect, conserve, restore, sustainably use, and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems, which address social, economic, and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services and resilience and biodiversity benefits.” ([UNEP/EA.5/RES.5](#))

→ IUCN Global Standard for Nature-based Solutions

To facilitate operationalizing NbS in a consistent and robust manner that achieves its foreseen benefits, IUCN developed the Global Standard for Nature-based Solutions³.

The Standard helps identify gaps and opportunities during the design phase, strengthen and improve implementation processes, and capture lessons learned from completed actions to inform future practice. In doing so, it supports a more systematic and transparent approach to planning, implementing, monitoring, and communicating NbS interventions.



The Criteria and Indicators of the NbS Standard together establish a common framework for documentation and a shared language for communication among project proponents, practitioners, funders, and other stakeholders. By promoting a structured approach to assessment, the Standard helps ensure that NbS interventions are designed and implemented in ways that are environmentally sound, socially equitable, and responsive to local priorities:

 CRITERION 1	NbS effectively address societal challenges	 CRITERION 2	NbS incorporate an ecological, economic, social, and cultural systems perspective
 CRITERION 3	NbS result in positive change in the state of biodiversity and enhanced ecosystem integrity, including connectivity	 CRITERION 4	NbS are financially feasible and economically justified
 CRITERION 5	NbS are based on inclusive, transparent, and empowering governance processes	 CRITERION 6	NbS seek to equitably reconcile the achievement of their primary goal(s) with any intended and unintended impacts on the continued provision of multiple benefits
 CRITERION 7	NbS are managed adaptively, based on evidence	 CRITERION 8	NbS contribute to the enhancement of the enabling conditions for their implementation, sustainability, and mainstreaming

3 In 2020, IUCN launched the first edition of the “[IUCN Global Standard for Nature-based Solutions](#)” followed by the second edition in 2025

The following case studies present 11 ongoing projects in Sub-Saharan Africa assessed using the IUCN Global Standard for Nature-based Solutions. As these assessments were conducted during the implementation phase of the projects, their final results and overall impacts had not yet been fully realized at the time of publication. The assessments were undertaken to document project activities, identify their anticipated climate, social, and environmental benefits, and generate recommendations to support the broader integration and mainstreaming of gender-responsive NbS in climate adaptation planning and practice.

CASESTUDY	PROJECT NAME	LOCATION	PAGE
1	CLIMATE CHANGE ADAPTATION PROJECT FOR WOMEN IN PROTECTED AREAS IN CONGO AND CHAD (ELLESadAPT)	Republic of Congo (National Park of Conkouati-Douli), Chad (Binder-Lere Protected Area Complex)	13
2	WOMEN FOR FORESTS: ADAPTING TO CLIMATE CHANGE IN THE MOYEN-BAFING NATIONAL PARK (FproF)	Guinea (Moyen Bafing National Park)	19
3	CONSERVATION AND SUSTAINABLE MANAGEMENT OF COASTAL AND MARINE ECOSYSTEMS IN KENYA AND TANZANIA (COSME)	Kenya (Kwale and Kilifi Counties) and Tanzania (Regions of Tanga and Pwani)	25
4	NATURE-BASED CLIMATE ADAPTATION IN THE GUINEAN FORESTS OF WEST AFRICA	Ghana (Wassa Amenfi Landscape and Lake Bosomtwe Landscape), Guinea (Kounounkan Forest Reserve and the Madina Oula landscape), and Côte d'Ivoire (landscapes surrounding Taï National Park and Lôh-Djiboua region)	30
5	GENDER TRANSFORMATIVE CLIMATE ADAPTATION	Cameroon + Chad (Longone-Chari river system – Lake Chad)	37
6	FEMINIST CLIMATE ACTION IN WESTERN AFRICA (ACF-AO)	Côte d'Ivoire (Sud-Comoé Region [Grand-Bassam and Adiaké departments] et Grands Ponts Region [Jacqueville and Grand Lahou], Guinée-Bissau (Bolama-Bijagos and Quinara), Senegal (Ziguinchor, Fatick, Sédhio and Kolda), and Togo (Maritime Region [2 prefects: Vo and Lacs])	42
7	REGENERATING SEASCAPES FOR PEOPLE, CLIMATE AND NATURE (ReSea)	Kenya (Lamu Seascape), Tanzania (Tanga-Pemba Seascape), Mozambique (Inhambane Seascape), Comoros (Moheli Seascape), and Madagascar (Antsiranana Seascape)	48
8	NATURE POSITIVE FOOD SYSTEMS FOR CLIMATE ADAPTATION (Nature+)	Ethiopia (Humbo, Ginir, and a contiguous area between Enarj Enawuga and Goncha Sisoense woredas), Kenya (Athi River basin - adjoining areas of Kitui South and Rural, and Kibwezi East and West), Mozambique and Zimbabwe (Chimanimani Transfrontier Reserve)	52
9	Natur'ELLES	Senegal (Sine-Saloum Delta and Casamance)	57
10	ECOSYSTEM-BASED SOLUTIONS FOR SUSTAINABLE ADAPTATION (SEDAD)	Mauritania (PNBA), Senegal (AMP Ufoyaal Kassa Bandial and AMP Kalone Bliss Kassa), The Gambia (Parc Niumi and Parc Jokadu)	62
11	FARM RADIO INTERNATIONAL	Radio program	68

→ Observations and Recommendations

1

MOVING FROM PRINCIPLES TO IMPLEMENTATION AND ADAPTATION PLANNING:

- While the IUCN Global Standard provides an important framework for assessing NbS quality, practitioners often need more detailed guidance on how to translate these principles into concrete actions throughout the project cycle, from design to monitoring and adaptive management. As adaptation interventions require practitioners to also simultaneously consider climate risks, ecosystem health, livelihoods, governance, gender equality, and social inclusion, a practical framework, such as NAbSA's Operational Framework, can help organize these interconnected considerations into a coherent and manageable process by aiding in the prioritization of actions and project planning.
- To move from ambition to impact, NbS projects need operational guidance that helps practitioners make informed choices, sequence actions, and manage trade-offs across climate, biodiversity, livelihoods, governance, gender equality, and social inclusion. Practical frameworks can strengthen project quality by turning global principles into clear decision-making pathways that support implementation, monitoring, learning, and adaptive management. They should also enable reciprocity between bottom-up and top-down approaches: grounding national and global frameworks in local realities, while ensuring that community-level priorities, knowledge, and evidence inform planning, policy, and investment decisions.

2

INTEGRATE MALADAPTATION RISK ASSESSMENT THROUGHOUT THE DESIGN AND IMPLEMENTATION OF ADAPTATION PROJECTS:

- In some cases, adaptation projects can unintentionally reinforce existing vulnerabilities, shift risks to other groups or ecosystems, or create new vulnerabilities. To avoid maladaptation, projects should ensure that adaptation measures are identified and prioritized based on a strong understanding of local vulnerability, inclusive stakeholder participation, and a clear definition of what successful adaptation means and for whom. Screening should consider environmental, sociocultural, and economic risks, including potential ecosystem degradation and transfer of pressures to ecologically connected areas. Furthermore, adaptation measures should be grounded in local social realities, cultural values, skills, and knowledge systems, where any new skills required for implementation can realistically be acquired and sustained by local communities. From an economic perspective, adaptation actions should aim to reduce socio-economic inequalities, support the diversification of livelihoods and income sources, and consider how economic and subsistence activities may evolve under future climate conditions. Incorporating these considerations can help ensure that climate adaptation interventions strengthen resilience without shifting risks.
- Maladaptation risk screening should not be treated as a one-time design exercise, but as a core part of adaptive management. Projects should regularly revisit risks as ecological, social, economic, and climatic conditions evolve, ensuring that adaptation measures continue to reduce vulnerability, avoid unintended harm, and deliver benefits for the people and ecosystems most at risk.

3

CONNECTING LOCAL ACTION TO BROADER NATIONAL AND INTERNATIONAL POLICY AND REPORTING FRAMEWORKS:

- Projects are increasingly expected to contribute to national adaptation priorities, biodiversity targets, and global commitments, necessitating support in understanding how local interventions can align with and inform these broader processes. Where possible, projects should identify clear pathways for communicating climate, biodiversity and human well-being outcomes (e.g., improved poverty, hunger, discrimination against women and girls, etc.) to national authorities. This can support the integration of project data into national and international reporting systems and help countries meet their regional and global sustainability commitments.
- Local action is most powerful when it informs national ambition. Projects should be designed to generate evidence that can support national adaptation planning, biodiversity strategies, climate reporting, and sustainable development commitments. This requires early alignment with relevant public institutions, clear indicators, and practical channels for transferring project-level data into national systems.

4

TRACK AND REPORT CLIMATE AND HUMAN WELL-BEING OUTCOMES LINKED TO BIODIVERSITY ACTIONS:

- Including tangible and measurable indicators on biodiversity, climate and human well-being outcomes in the NbS project monitoring and evaluation framework, as well as its key performance indicators, builds a stronger evidence-based of project results. For example, tracking indicators such as ecosystem health and species diversity, climate benefits, and human well-being outcomes directly linked to biodiversity actions such as improved access to clean water or better food security, helps assess what works and what needs adjustment. In addition, having such data available can support more effective reporting of project contributions to national and international sustainability frameworks and agreements.
- Stronger evidence is essential to demonstrate the value of investing in nature. Monitoring systems should capture not only activities delivered, but the outcomes they generate for ecosystems, climate resilience, and people's lives. This can help decision-makers understand where NbS are working, where adjustments are needed, and how nature-positive investments contribute to national and global priorities.

5

SUPPORT LONGER PROJECT AND MONITORING TIMELINES:

- Climate and biodiversity projects are often funded for an implementation period of 3 to 5 years. These timelines are typically not sufficient to measure tangible biodiversity outcomes, and they may not provide enough time to identify and address any negative outcomes that arise from project activities. Extending funding cycles to 5+ years can allow for the documentation of measurable climate and biodiversity outcomes linked to ecosystem services, ecosystem functionality, and connectivity. As protection and restoration actions mature, the risk of emerging negative outcomes can increase, and longer monitoring periods can help detect and address these issues in time. Furthermore, longer cycles provide more time to support behavioural change, particularly where gender-responsive activities are intended to enable meaningful participation of women in governance mechanisms and to empower them in accessing resources.
- Nature, climate and social change operate on longer timelines than most project cycles. Funding and monitoring arrangements should better reflect the time required for ecosystems to recover, institutions to strengthen and inclusive governance practices to take root. Longer timelines can improve accountability, support learning, and provide a more realistic basis for measuring lasting impact.

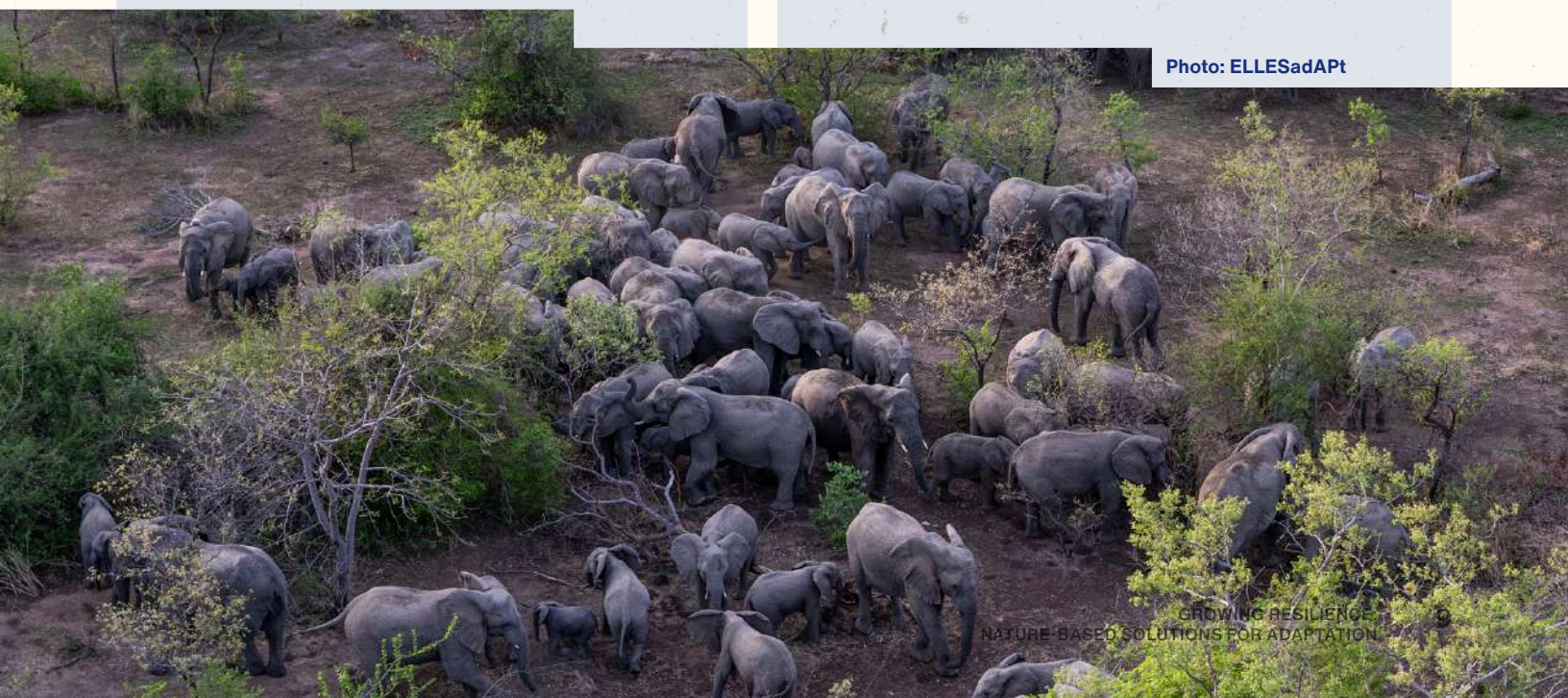
BUILD ON EXISTING DATA AND SYSTEMS:

- When projects build on existing data, past studies, and local systems, the project design and implementation start from a stronger and more practical foundation. Across the P4C portfolio, several projects have shown the benefits of using available data to understand the context, key issues, and stakeholders, as well as working through existing management structures and governance processes, such as site-level committees, to support design and implementation.
- Taking the time to identify and use what is already available, both in terms of information and local platforms, can improve the quality and relevance of project activities. It can also save time and resources, avoid duplication, and make it easier to engage stakeholders and maintain continuity with ongoing or past efforts.
- Effective projects do not start from zero. Building on existing evidence, local knowledge, governance structures, and monitoring systems can improve relevance, reduce duplication and accelerate implementation. This also strengthens continuity with national and local priorities and helps ensure that project results can be sustained beyond the funding period.

ADAPT PROJECT STRATEGIES TO SITE-LEVEL CONTEXTS:

- When a project is implemented across multiple and distinct locations, project-level strategies such as communications, gender, and monitoring and evaluation may not fully reflect the diversity of local contexts. In large-scale projects that often operate across multiple sites, regions, or countries, a one-size-fits-all approach can limit their relevance and effectiveness. This is particularly relevant for communications efforts around promoting gender-responsive practices.
- Allowing for the contextualization of these strategies at the sub-site level, where needed, can help ensure they are better aligned with local conditions, stakeholder dynamics, and priorities. This can improve stakeholder engagement, improve the quality of implementation and support more meaningful tracking of results across diverse settings.
- Large-scale programmes need enough flexibility to respond to local realities. Communications, gender, monitoring and engagement strategies should be tailored where necessary to reflect different ecological conditions, social norms, governance arrangements, languages and stakeholder priorities. This can improve ownership, strengthen participation, and make implementation more effective across diverse contexts.

Photo: ELLESadApt



8

STRENGTHEN LONG-TERM MONITORING THROUGH LOCAL PARTNERSHIPS:

- As standard climate and biodiversity projects are often implemented over a 3 to 5-year period, project timelines are not always sufficient to observe ecosystem maturation or measure tangible biodiversity outcomes. While short-term physical changes can be monitored during implementation, assessing functional ecological changes often requires longer-term observation beyond the standard project cycle. Partnering with local organizations as implementing partners and equipping them with the necessary technical capacity, tools, and equipment can help continue monitoring after project implementation ends. As these organizations already often maintain long-standing relationships with communities, local authorities, and national institutions, they are well placed to continue monitoring activities over time. Such an approach would help longer-term biodiversity monitoring beyond the project cycle, strengthen local ownership and technical capacity, and improve the ability to document and report long-term ecological outcomes.
- Long-term monitoring is most effective and sustainable when it is locally anchored. Local partners play a critical role not only in continuing data collection beyond the project cycle, but also in ensuring that monitoring and implementation are grounded in local realities, trusted relationships and evolving community priorities. Investing in local organizations and community structures strengthens project effectiveness, supports timely course correction, and helps ensure that learning is translated into action. It also builds local ownership, reinforces technical capacity, and improves the ability to document and sustain long-term ecosystems, climate resilience and human well-being outcomes.

9

USE LOCAL COMMUNICATION CHANNELS TO AMPLIFY IMPACT:

- When projects are implemented across multiple countries within a region, systematically capturing lessons learned, stories of change, and observed impacts can help strengthen both local engagement and broader knowledge-sharing. Sharing these insights with local communities, as well as the wider international audiences, contributes to more sustained and potentially transformative outcomes.
- This is particularly relevant in aspects targeting changes in practices related to natural resource management, as well as efforts to support gender-responsive governance and empowerment. In this context, community-oriented communication channels and platforms which facilitate the dissemination of locally grounded stories - in this case, the work done through Farm Radio International - could be a valuable approach to share stories of change in accessible and locally relevant ways and reinforce the effectiveness and longer-term sustainability of project results and capacity-strengthening efforts.
- Communication should be treated as a strategic tool for behaviour change, accountability, and scaling impact. Locally trusted channels can help translate technical results into accessible stories, reinforce changes in practice and elevate community voices. When used systematically, they can strengthen public understanding, support gender-responsive outcomes, and help successful approaches reach wider audiences.

PROMOTE COORDINATION AND SHARED LEARNING:

- Where multiple projects within a portfolio are implemented in the same region, and working within similar ecological, economic, social and cultural contexts, establishing light coordination mechanisms facilitates coordination and exchange among them. Such mechanisms can support alignment where appropriate, while enabling projects to share experiences, challenges, and good practices.
- Establishing these linkages can also strengthen the systematic collection and synthesis of lessons learned across projects, especially those operating within similar ecosystems or thematic areas. For instance, consolidating data from multiple initiatives on the implementation of Nature-based Solutions in coastal ecosystems could generate a more robust and actionable evidence base to inform future programming and decision-making.
- Portfolio-level coordination can transform individual project experience into collective intelligence. Light but intentional coordination mechanisms can help projects share evidence, avoid duplication, identify common challenges, and strengthen approaches across similar ecosystems or themes. This is especially valuable where projects operate in comparable contexts and can jointly inform future programming, policy, and investment decisions.



Photo: ELLESadAPt

List of Acronyms

ANR	Assisted Natural Regeneration
FPIC	Free, Informed, and Prior Consent
FRI	Farm Radio International
GBW	Great Blue Wall
ICHAs	Indigenous and Community Heritage areas and territories
IUCN	International Union for Conservation of Nature
LMMA	Locally managed marine area
MPAs	Marine Protected Areas
NAbSA	Nature-based Solutions for climate Adaptation
NbS	Nature-based Solutions
P4C	Partnering for Climate
WIO	Western Indian Ocean

CASE STUDY

01

CONTRIBUTION

Hélène Coppens

Climate Change Adaptation Project for Women in Protected Areas in Congo and Chad (ELLESadAPT)



LOCATION

Republic of Congo, Chad

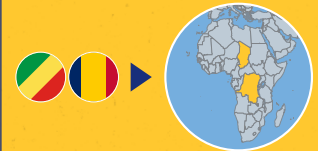


Photo: ELLESadAPT/Thomas Nicolon

TYPE OF ECOSYSTEM



Lakes



Forests



Savannahs



MAIN SOCIETAL
CHALLENGES

Socioeconomic Development
Food Security



MAIN DRIVERS OF
DEGRADATION

Climate Change
Human Activities



MAIN NBS APPROACHES

- Protected Areas
- Forest Land Restoration
- Sustainable Aquatic Ecosystems Management
- Agroecology and Restoring Soil Health



EXPECTED SOCIETAL OUTCOMES

Enhanced economy and food security for 2,100 women entrepreneurs

(600 in Congo and 1,500 in Chad) direct beneficiaries, and 115,700 people indirect beneficiaries



EXPECTED BIODIVERSITY OUTCOMES

Conservation of threatened biodiversity



EXPECTED CLIMATE OUTCOMES

Enhanced adaptive management of natural resource use and improved habitat resilience

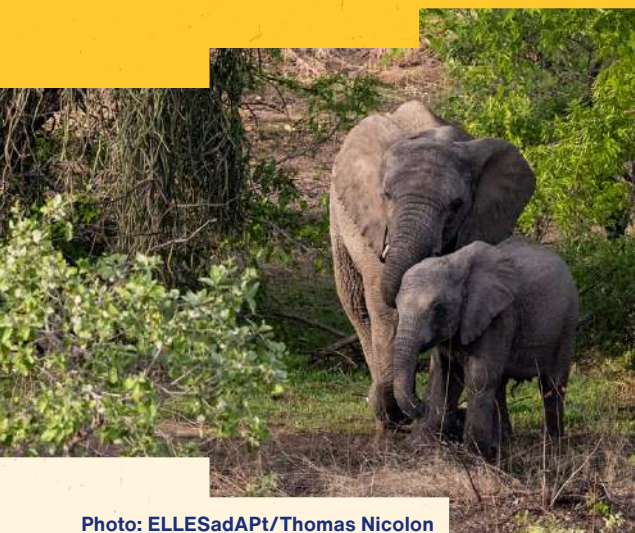


Photo: ELLESadAPt/Thomas Nicolon

The Republic of Congo and Chad are among the countries most vulnerable to climate change globally, with rising temperatures, declining rainfall, and increasing climate variability contributing to more frequent droughts and environmental degradation.

These pressures have intensified water scarcity, soil erosion, fire risks, and the degradation of ecosystems. Conkouati-Douli National Park in Congo and the Binder-Léré Protected Area Complex in Chad are protected areas that host diverse and fragile ecosystems, yet both are increasingly affected by habitat loss, disrupted ecological processes, invasive species, and pressures from human activities. Communities living in and around these areas have limited adaptive capacity due to extreme poverty, restricted access to basic services, and high dependence on natural resources for their livelihoods. As climate impacts intensify, declining agricultural productivity, fisheries, and livestock systems are increasing food insecurity, income loss, and social inequality. Women are particularly affected due to their dependence on climate-sensitive natural resources, as they continue to face systemic barriers in access to resources, education, and financial services, as well as restricted access to socio-economic rights such as land ownership and participation in decision-making processes. Despite the scale of current and projected climate risks, institutional and policy responses remain fragmented and insufficient, further compounding vulnerability at community, ecosystem, and governance levels.

To address these challenges, the “*Climate Change Adaptation Project for Women in Protected Areas in Congo and Chad (ELLESadAPt)*” promotes the implementation of NbS through a feminist climate justice approach that recognizes women as central agents of change. The project aims to enhance women’s adaptive capacity by strengthening their leadership, promoting the exercise of their socio-economic rights, and improving their technical and financial capacities to adopt and implement NbS practices that support food security, income generation, and livelihood diversification. Women also play a central role in the adaptive, participatory, and inclusive management of protected areas and their surrounding landscapes in the target regions, to deliver ecosystems that are healthy and resilient to climate change. In addition, the project documents the specific vulnerabilities of women and their communities, and of the ecosystems on which they depend, with the objective of informing planning frameworks and supporting integrated, climate-resilient, and gender-responsive territorial development.



Photo credit: ELLESadAPT/
Thomas Nicolon

ELLESadAPT is designed to deliver results across three interconnected levels:



At the community level, it enhances the autonomy of women and strengthens their entrepreneurial, technical, and financial capacities to implement NbS practices,



At the ecosystem level, it contributes to increased climate resilience of ecosystems through community-led NbS within protected areas,



At the territorial level, it supports integrated, climate-resilient, and gender-responsive planning of protected areas.

ELLESadAPT as an NbS:

→ The project is structured around three complementary clusters of NbS actions:

1

PROTECTED AREAS as the first layer of action to provide essential ecosystem services, maintaining ecological integrity, buffering climate variability, and reducing the impacts of extreme climate events in Conkouati-Douli National Park in Congo and the Binder-Léré Protected Area Complex in Chad.

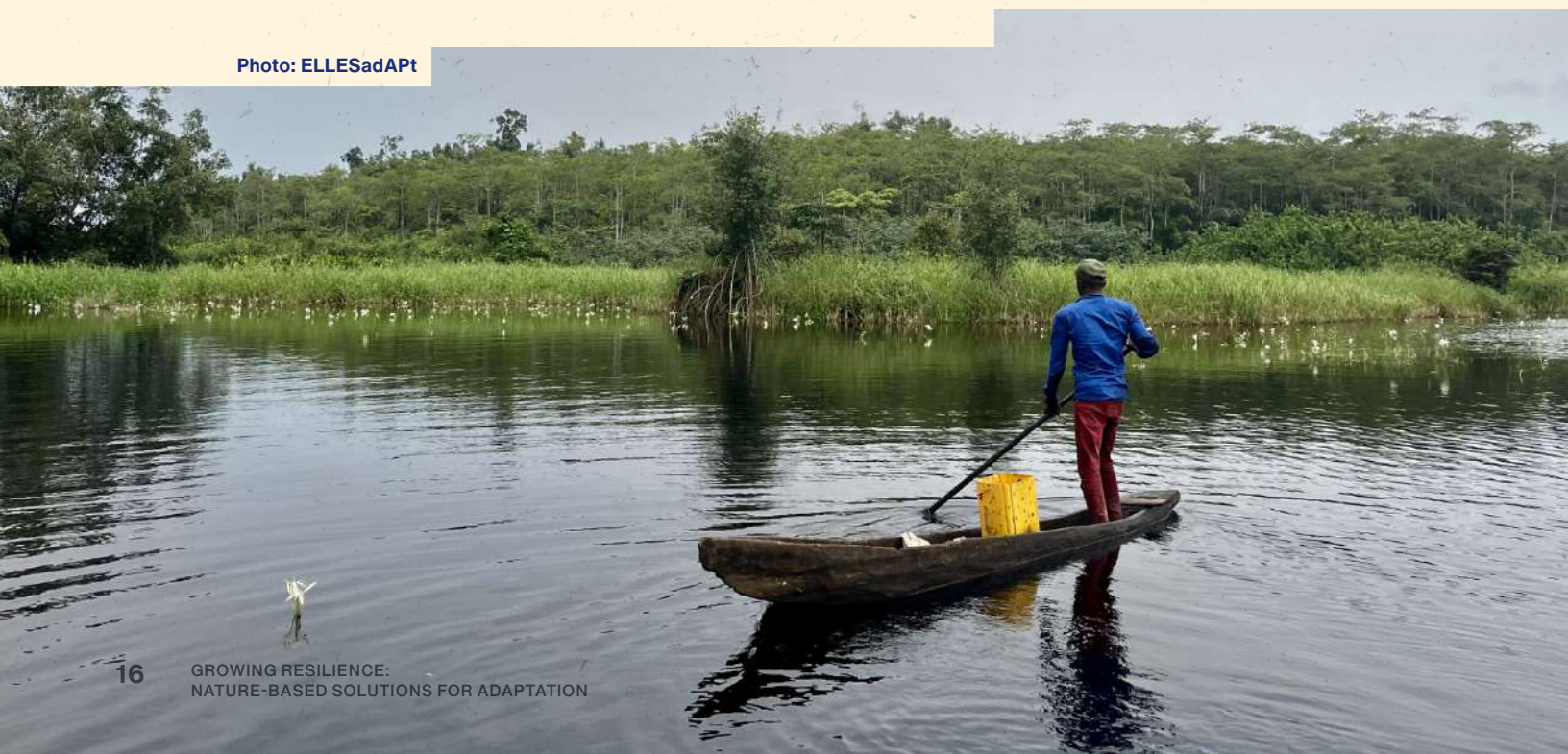
2

FOREST LANDSCAPE RESTORATION ACTIONS that focus on restoring priority ecosystems within the two protected areas. These actions include restoration of tropical and dry forest ecosystems through community-led reforestation and assisted natural regeneration as well as the restoration of critical aquatic ecosystems including the Conkouati Lagoon in Congo and Lakes Tréné and Léré in Chad. In Chad, for example, the project supports the management of water hyacinth by turning this invasive specie into an opportunity through pilot activities such as compost production and its valorization as an alternative energy source.

3

NATURE-BASED LIVELIHOODS that support the adoption of sustainable practices in agriculture forestry, fisheries and aquatic ecosystem management to strengthen food security and income generation. In agriculture, the project promotes agroecological and agroforestry practices adapted to local conditions. In Congo, these include ecological soil preparation, composting, biopesticide production, nursery management, and crop protection measures against domestic and wild animals. In Chad, supported practices include composting, biopesticides, soil and water conservation measures such as stone bunds and mulching, as well as protective enclosures and live hedges. In both project areas, sustainable management of aquatic ecosystems was also identified as a priority because of their importance for local livelihoods, food security, and ecosystem functioning. Therefore, ELLESadAPt activities support improved knowledge, protection, and sustainable use of aquatic resources, including fish stocks that are vital to communities living around lagoons and lakes. The project also supports livelihood diversification linked to aquatic ecosystem management, including the valorization of water hyacinth into compost, biogas, and basketry products, as well as improved processing and storage of fish products.

Photo: ELLESadAPt



→ Given the high climate change risk in the two target areas, ELLESadAPt incorporated specific steps during project design and implementation to minimize maladaptation risks. In the Binder-Léré Protected Area Complex, a climate vulnerability study was conducted, and its findings were used to identify adaptation options. These options were identified, factoring in:

1. An analysis of the livelihood of good adaptation practices and management derived from local knowledge and scientific literature,
2. An analysis of national strategies and projects in similar contexts, primarily Chad's National Adaptation Plan to Climate Change, and
3. An analysis of the park's 2023-2027 Business Plan.

The list of adaptation options was then presented at a prioritization workshop where they were expanded, validated and prioritized in collaboration with communities and relevant stakeholders. The multi-criteria analysis method was used to prioritize the options. These prioritized measures are integrated into local land-use planning, management plans, and protected area management plans, thereby reducing climate change's negative impacts on ecosystems and communities (Criterion 2).



→ Since the assessments conducted at the project's proposal stage, several consultations have also been conducted with women's groups and rights-based organizations to validate the findings established during project design, and to assess the capacity of civil society organizations, particularly those focused on women's rights, to support the implementation of selected components of ELLESadAPt's training activities.

As an example, these consultations highlighted the importance of strengthening these organizations and creating spaces for inclusive dialogue within communities, involving both women and men. In response, the project integrated specific awareness-raising and training components to promote positive masculinity and greater recognition of women's socio-economic rights. Furthermore, each protected area has an established Community Consultative Committee to facilitate communication, support joint decision-making, and provide a structured mechanism for feedback and grievance management. Members of both committees have received training to strengthen their capacity to participate actively in protected area management planning and implementation. The project places particular emphasis on supporting women's meaningful participation by providing gender-sensitive training to protected area staff, committee members and creating conditions that help increase women's confidence in speaking publicly and contributing to decision-making processes. Communities are also kept informed through various communication channels, including radio broadcasts. In addition, local facilitators from Noé and the project team are present in the target areas to maintain close and continuous engagement with communities throughout implementation (Criteria 1 and 5).



→ The project design was informed by existing environmental data; however, the baseline information was partially outdated and required further validation. As part of project implementation, the current state of ecosystems was comprehensively assessed through ecosystem assessments and mapping, water resource evaluations, and related vulnerability analyses. ELLESadAPt also tracks complementary indicators developed by the implementing partner, Noé⁴, which focuses on biodiversity conservation and ecosystem restoration outcomes (such as the Integrated Management Effectiveness Tool for protected areas); number of climate-sensitive flagship species recorded; person-days devoted to ecological monitoring; person-days devoted to patrolling; hectares of degraded ecosystems under restoration). However, the relatively short project timeframe limits the ability to fully capture measurable changes in ecosystem condition and biodiversity. To strengthen the sustainability of project impacts, the project was designed around Noé's long-term presence in the two PAs, where it will remain the main stakeholder responsible for management after project completion. In addition, the project adopts a longer-term perspective by strengthening Noé's technical capacities, and equipping its teams with the tools, equipment and systems needed to sustain implementation, monitoring and evaluation beyond the project's duration (Criteria 3 and 7).



→ During the project implementation, a range of cultivation practices – including crop combinations, hedgerows, and the use of compost – are tested on different plots to determine which methods are most effective and to assess potential alternatives. For restoration activities, including reforestation, a cost assessment has been undertaken to identify affordable and appropriate seedling protection measures tailored to the specific environmental conditions of each plot and the needs of local community. The costs, benefits, and risks associated with these approaches are also under assessment.



Furthermore, ELLESadAPt leverages Noé's existing public-private partnership agreements with the Congo and Chad national governments, which provide a long-term institutional framework for the management of the two target protected areas. By strengthening management systems within this existing framework, the project also contributes to creating enabling conditions for the mobilization of additional resources to support the long-term sustainability of these parks. Both parks have established specific indicators to track progress toward sustainable resource mobilization, which are currently monitored by Noé. Potential resource mobilization pathways include ecotourism, sustainable value chains, and private-sector financing (Criterion 4).

⁴ Established in France, [Noé is a nature conservation NGO](#) and an implementation part of ELLESadAPt.

CASE STUDY

02

CONTRIBUTIONS

Élise Lortie and
Caroline Mailloux

Femmes Pro-Forêts: Adapting to Climate Change in the Moyen-Bafing National Park (FproF)



LOCATION

Guinea



Photo: UPA DI

TYPE OF ECOSYSTEM



Forests



MAIN SOCIETAL CHALLENGES

Ecosystem Degradation



MAIN DRIVERS OF DEGRADATION

Climate Change
Unsustainable Agriculture
Forestry Practices



MAIN NbS APPROACHES

- Forest Restoration
- Agroforestry
- Agroecology
- Non-timber forest products



EXPECTED SOCIETAL OUTCOMES

Increased food security and improved economic opportunities for 5,000 direct beneficiaries

(3,500 women) and 800,000 indirect beneficiaries



EXPECTED BIODIVERSITY OUTCOMES

Restored degraded forest ecosystems in Key Biodiversity Areas, including protected areas for Chimpanzees conservation and development of income-generating activities derived from the harvesting of non-timber forest products to protect existing forest



EXPECTED CLIMATE OUTCOMES

Increased climate-smart agroforestry and agroecology solutions, promoting low-carbon energy solutions

the Fouta Djallon Highlands of Guinea, often considered the “water tower” of West Africa. Declining rainfall has reduced agricultural yields and deepened poverty among vulnerable communities in these mountainous and isolated areas. Women are disproportionately affected, as they often lack the resources, assets, and institutional support needed to adapt. Patriarchal norms, unpaid care responsibilities, and limited access to productive resources and decision-making processes further constrain their resilience, particularly for women from ethnic minority groups. In response to livelihood pressures, practices such as deforestation, slash-and-burn agriculture, timber harvesting, and charcoal production have intensified. Charcoal remains the main energy source for more than 90% of local households and an important source of supplementary income, but these practices continue to threaten local forests and the exceptional biodiversity they support.

To address forest degradation and biodiversity loss, the Guinean Office of Parks and Reserves established Moyen Bafing National Park in 2017 to protect threatened species, including one of the world’s largest remaining chimpanzee populations. While these conservation measures are essential, they have further restricted community access to natural areas, especially for women who rely on forest products for household needs and income-generating activities. As a result, tensions have emerged between conservation goals and local livelihood needs.



Photo: UPA DI

In response to these challenges, the “*Femmes Pro-Forêts: Climate Change Adaptation project in the Moyen-Bafing National Park (FproF)*” is designed to strengthen the climate change adaptation of vulnerable women and their families through three main areas of intervention:

1

Increase the adoption of Nature-based climate change adaptation solutions that support forest biodiversity in Moyen-Bafing National Park and its buffer zones, to benefit vulnerable women while contributing to the restoration and protection of forest ecosystems,

2

Improve economic opportunities for women through nature-based and climate-smart agroforestry practices,

3

Strengthen inclusive and equitable governance of forest biodiversity in Moyen-Bafing National Park, ensuring enhanced participation of women in decision-making processes related to natural resource management and climate change adaptation.

Key project activities include supporting community-based restoration of forest corridors and habitats identified as priority biodiversity areas in Moyen-Bafing National Park, assisting civil society organizations and economic interest groups in establishing support services to reduce climate change adaptation barriers linked to unpaid care work, promoting sustainable agroforestry practices such as garden marketing and non-timber forest products, and implementing training programs on feminist climate justice and women's environmental rights. FproF engages nearly 50 villages located within the park or its buffer zone.

FproF as an NbS:

- The FproF project was designed based on existing initiatives and planning documents in the Moyen-Bafing National Park area, including actions undertaken by the Wild Chimpanzee Foundation and the United Nations Development Programme, as well as the park management plan, local development plans, land-use management plans, and eco-village plans. The project integrates NbS with complementary interventions such as the organizational strengthening of producer groups, training activities, and measures to reduce women's unpaid care burden. The selection of NbS was informed by the needs of park communities, ecosystem challenges, climate and institutional analyses, and consultations with local and institutional actors. For example, tree species for reforestation were selected based on both biodiversity conservation objectives and community needs related to livelihoods and food security. The project supports synergies with other initiatives in the park area through coordination meetings and thematic technical working groups focused on environment, gender, organizational support, and community development. However, fully protected classified forest areas are excluded from project activities due to accessibility constraints, limitations on economic development, and potential challenges related to community acceptance (Criteria 1 and 2).
- The project conducted an environmental and social impact assessment to identify its potential positive and negative effects on the environment, as well as the risks that the local biophysical and socioeconomic context may pose to project results. While the project is expected to generate mostly positive outcomes by strengthening climate change adaptation, supporting ecosystem conservation, and creating economic opportunities, several potential environmental risks were also identified. These include increased pressure on forests and natural resources due to increased human demand, contamination and health risks associated with organic inputs, increased waste generation and energy demand from processing activities, degradation linked to reforestation nurseries, and maladaptation if unsuitable species, sites, or value chains are selected. Climate change, water scarcity, ecosystem degradation, bushfires, and human-wildlife conflict were also identified as factors that could affect project implementation. Community consultations further highlighted concerns about restrictions on traditional livelihoods, the need for concrete investments in



C
1



C
2



C
2



C
7

infrastructure and basic services, and the importance of coordination with existing initiatives. Each factor was assessed and weighted based on its probability and intensity, amongst other factors. Although the overall risk level of the project is considered low to moderate, a mitigation plan was developed for each of the main environmental risks. For example, FproF provides training to community members on climate-smart agroforestry practices, good agricultural practices, soil and water conservation, and sustainable harvesting of non-timber forest products in order to avoid increasing pressure on forest ecosystems and natural resources in the intervention areas. The project's monitoring and evaluation plan also includes indicators to track the implementation and effectiveness of actions linked to the identified mitigation measures and reviewed on an annual basis (Criteria 2 and 7).

- A detailed analysis of forest ecosystem connectivity zones and biodiversity corridors in the Moyen-Bafing National Park provided the basis for planned forest restoration actions in FproF. As part of the project activities, less common native forest species are reintroduced to improve the functional diversity of restored areas. Conservation outcomes are monitored annually throughout the project and, where relevant, assessed over longer periods through modeling. For example, ecological connectivity modeling is used to compare connectivity indicators before and after reforestation over selected timescales (e.g. 10 years). In addition, a partnership with the Group on Earth Observations Biodiversity Observation Network (GEO BON) supports broader biodiversity conservation monitoring across Guinea, helping to measure impacts beyond the project's duration. This agreement also strengthens the capacity of Guinea's Office of National Parks and Wildlife Reserves to monitor and report on biodiversity indicators under the global biodiversity monitoring framework (Criteria 3 and 8).

- FproF conducted semi-structured interviews in 10 villages within the park to support a gender-sensitive assessment of ecosystem services, while participatory mapping workshops were organized to document resource use and ecosystem-service priorities. A gender-sensitive cost-effectiveness analysis was also conducted to assess the costs, benefits, and impacts of the NbS implemented by the project, complemented by focus groups and household surveys that examined their effects on livelihoods. In the short term, FproF finances the implementation of NbS actions while supporting the sustainability of project outcomes through profitable agricultural value chains, women's green entrepreneurship, and local savings mechanisms such as Village Savings and Loan Associations. At the national level, literature reviews and mapping exercises are conducted to identify potential financing options for gender-sensitive compensation mechanisms and climate adaptation measures. In addition, from the proposal stage, FproF has worked with Guinea's National Directorate of Water and Forests and the Senegal River Basin Development Organization to identify synergies and long-term financing opportunities, including through Corporate Social Responsibility mechanisms linked to hydroelectric and mining actors and to support the establishment of an ecosystem services compensation mechanism. This mechanism aims to ensure that a portion of the financial contributions made by mining companies to Moyen-Bafing



C
3



C
8



C
4



C
6

National Park through their corporate social and environmental responsibility programs is managed and equitably redistributed to vulnerable village communities involved in the restoration and conservation of strategic areas for forest biodiversity (Criteria 4 and 6).

- From project inception, FproF established a formal, stakeholder-accessible feedback and grievance mechanism to receive complaints and ensure proper routing. This mechanism is supported by reference materials, training, and designated authorized personnel while regular consultations are used as a mechanism to inform stakeholders of the latest developments and enable them to shape strategic direction. In addition, dedicated capacity-building activities focused on strengthening the ability of Moyon-Bafing National Park officials and stakeholders to manage conservation benefits equitably for women and girls, including by improving local coordination and governance. As an example and as part of this process, an inclusive governance forum in Conakry was organized where 12 women park leaders presented their management priorities to national stakeholders and civil society, contributing to a formal list of commitments and the creation of a committee to co-develop a Gender Equality Strategy for the park, thereby institutionalizing a pathway for enhanced women's participation in park governance (Criterion 5 and 8).



C
5



C
8



Photo: UPA DI

CASE STUDY

03

CONTRIBUTION

Annick Gillard-Bailetti

Conservation and Sustainable Management of Coastal and Marine Ecosystems (COSME)



LOCATION

Kenya, Tanzania



Photo: Plan International

TYPE OF ECOSYSTEM



Coastal



Marine



MAIN SOCIETAL CHALLENGES

Economic Development
Poverty Reduction



SECONDARY SOCIETAL CHALLENGE(S)

Food Security
Loss of Income



MAIN DRIVERS OF DEGRADATION

Extreme events
Sea level rise
Poor soil quality and erosion
Deforestation for coal



MAIN NBS APPROACHES

- Mangrove Restoration
- Sustainable Seaweed Farming
- Forest Conservation



EXPECTED SOCIETAL OUTCOMES

**Over 49,000
direct
beneficiaries**

**in coastal Kenya and Tanzania
(including over 26,000
women)**

**Over 434,000 indirect
beneficiaries**



EXPECTED BIODIVERSITY OUTCOMES

**Restored coastal and marine
ecosystems**



EXPECTED CLIMATE OUTCOMES

**Climate-resilient,
equitable economies**



Photo: Plan International

Kenya's coastal regions face severe climate change impacts, including increased flooding, rising sea levels, and more frequent tropical cyclones, leading to coastal erosion, saltwater intrusion, storm surges, inland flooding, and massive biodiversity loss that negatively affect livelihoods, damage productive land and infrastructure, and degrade the natural systems rural coastal communities depend on for protection, livelihoods, and food security. Climate change also notably impacts fishing activities, with seasonal variations affecting catch quantities and fish types, suggesting changes in oceanic conditions linked to climate change. The climate crisis, combined with unsustainable resource management, reduces coastal communities' adaptive capacity and resilience, particularly among marginalized groups like women, youth, and children who experience significant poverty and social inequity, leading to sexual and gender-based violence, including sexual exploitation and abuse, intimate partner violence, and child early and forced marriage. Despite these challenges, Kenya's coastal region holds significant potential for NbS for climate adaptation with biodiversity co-benefits that can mitigate climate impacts, prevent further degradation, and provide economic and social development opportunities, especially for women, while selected NbS approaches can address gender inequality by enhancing women's access to and control over resources and increasing their participation and leadership in climate policy. However, deep and persistent gender inequalities, including harmful gender norms, hinder women's meaningful participation. National and local governments' support in mainstreaming gender equality into climate change or sectoral plans is necessary to strengthen gender-responsive climate action and gender-responsive marine/coastal ecosystem management.

The “*Conservation and Sustainable Management of Coastal and Marine Ecosystems (COSME)*” project aims to strengthen climate-resilient and equitable coastal economies in Kenya and Tanzania by promoting gender-responsive and socially inclusive NbS practices that support adaptation, biodiversity, and ecosystem integrity. With a strong focus on women, youth, and local communities, the project combines capacity building, field implementation, governance strengthening, and livelihood development. COSME's key activities include mangrove restoration and conservation, development of payment for ecosystem services opportunities, sustainable seaweed farming, gender-responsive forest management,

conservation agriculture, clean energy and water solutions, and community-led adaptation planning. Women's groups and cooperatives receive training, coaching, financial linkages, and market access support to strengthen livelihoods while reducing pressure on coastal and marine ecosystems. The project also promotes gender equality, women's rights, youth engagement, and social behaviour change through training and psychosocial support, household action plans, school-based climate education, and community conservation planning.



Photo: Plan International

COSME as an NbS:

→ The project focuses on three key NbS practices to protect coastal communities and ecosystems:

1. Mangrove restoration to protect communities from storms and sea-level rise, while also contributing to climate mitigation through high carbon storage capacity,
2. Sustainable seaweed farming to reduce coastal erosion, create habitat for fish, and generate economic opportunities through export markets and processed products such as shampoos and lotions,
3. Forest conservation to respond to threats facing Eastern Africa's coastal forest biodiversity hotspots by promoting the planting of native species and the development of alternative livelihoods that do not deplete the environment.

→ At inception, participatory mapping exercises revealed gender-specific spatial perceptions and resource priorities. Men tended to emphasize coastal resources related to fishing and navigation, reflecting their economic roles, while women focused on freshwater sources and terrestrial forests that are essential for subsistence and household needs. Participants also consistently reported experiencing climate-related hazards, including droughts, floods, famine, soil erosion, and strong winds. A key observation was the perceived intensification of these hazards, particularly the increasing frequency of recent droughts, which has further exacerbated local community vulnerability. To respond to these challenges, the project has mobilized additional support, including the procurement of water, shading, and fencing materials, and has absorbed higher operating costs associated with water delivery. These measures strengthen the project's ability to address climate risks and support ecosystem restoration (Criteria 1&2).

→ COSME conducted site suitability assessments across eight sites to determine where new farmers could grow seaweed and to confirm the suitability of locations where farmers had already begun farming without prior technical assessment. The exercise involved field visits to each site and the collection of qualitative and quantitative data, including potential for farm expansion. Following the assessment, suitable sites were mapped for offshore seaweed nurseries in deeper water next to existing farming areas, where stronger water movement and steadier temperatures keep planting material in better condition than it stays in the shallows. The project also conducted gendered market assessments and research into improved seaweed varieties. Based on the findings of these assessments, the project provides training and support to women-led cooperatives to connect them with export markets. Meetings are also held with relevant authorities to build buy-in and address implementation bottlenecks, including



C
1



C
2



C
4

seaweed losses linked to fishing activities. During implementation, community outreach showed that farmers are highly attuned to tidal cycles through their close relationship with the coastal environment and use of a lunar-based calendar. Building on this local knowledge, the project plans to develop a community billboard with visual guidance on key seaweed farming steps, how to address common problems such as ice-ice disease, and an annual calendar indicating the best and worst farming periods (Criterion 4).

- To strengthen coordination and promote best practices, COSME developed training manuals to guide community-led restoration. These manuals support local groups by strengthening their knowledge of mangrove ecosystems, key threats, and the links between ecosystem health and climate resilience. In addition, tools such as the Wetlands International Mangrove Restoration Tracker Tool support real-time data integration with the Global Mangrove Watch platform, helping to improve monitoring, learning, and adaptive management. This platform also supports the reporting of COSME's biodiversity outcomes to international platforms (Criteria 7&8).
- COSME supports the distribution of Solvatten solar water treatment and heating units to schools and households in Kenya's Kwale and Kilifi counties, complementing its community-led mangrove and forest conservation efforts. By replacing firewood used for boiling and heating water with solar energy, the initiative reduces woodfuel demand and associated greenhouse gas emissions while improving access to safe water, supporting Kenya's Nationally Determined Contribution, which prioritizes clean and sustainable energy technologies that reduce reliance on unsustainable biomass fuels (Criterion 8).



C
7



C
8



C
8



Photo: Plan International

CASE STUDY

04

CONTRIBUTION

Olivia Nasewicz

Nature-based climate adaptation in the Guinean forests of West Africa



LOCATION

Ghana, Guinea, and Côte d'Ivoire



Photo: WUSC and CECI

TYPE OF ECOSYSTEM



Forests



MAIN SOCIETAL CHALLENGES

Food Security
Socioeconomic Development



MAIN DRIVERS OF DEGRADATION

Climate Change
Agricultural Expansion
Human Activities



MAIN NbS APPROACHES

■ Forest Land Restoration



EXPECTED SOCIETAL OUTCOMES

**211,652
beneficiaries**

(50% women)



EXPECTED BIODIVERSITY OUTCOMES

**Restoration of degraded
forests and key habitats**



EXPECTED CLIMATE OUTCOMES

**Increased gender-sensitive
investment in nature-based
climate change adaptation
solutions with income
potential**



Photo: WUSC and CECI

West Africa is highly vulnerable to climate change due to increasing temperatures, more frequent heat-stress conditions, rainfall variability, droughts, flooding, sea-level rise, strong Harmattan winds, and unpredictable extreme weather events. In Ghana, climate change has led to drought, flooding, excessive heat, infrastructure damage, shorter growing seasons, loss of carbon sinks, and changes in rainfall patterns. In Guinea and Côte d'Ivoire, reduced rainfall, rising temperatures, and forest degradation, and a decline in biodiversity (e.g. near collapse of key pollinator species) are expected to place additional pressure on potable water availability, agricultural production, and forest-dependent livelihoods. These impacts are particularly significant in cocoa-producing landscapes, where smallholder farmers in Ghana and Côte d'Ivoire supply about half of global cocoa production⁵. Climate change may reduce the viability of cocoa and other commercial crops in some areas, shifting production toward higher altitudes and increasing pressure on remaining forest areas, including the Guinean Forests of West Africa, a globally important biodiversity hotspot already affected by agricultural expansion.

These climate pressures further deepen existing inequalities. High temperatures can reduce children's ability to study and contribute to lower school attendance, while declining incomes from farming and fishing are encouraging livelihood diversification and rural-to-urban migration, particularly among youth. Women and girls are disproportionately affected, as they are often responsible for collecting medicinal plants and herbs, water and firewood and managing household water use. Reduced rainfall, forest degradation, and water scarcity increase their workload and exposure to unsafe water, while limiting opportunities for education and income-generating activities. In areas where men migrate temporarily in search of work, women who remain in rural communities may face increased responsibilities for household livelihoods, caregiving, and resource management. At the same time, reduced commercial crop viability and growing pressure on land may contribute to migration, competition over natural resources, and potential land-related conflicts.

5 Côte d'Ivoire and Ghana together produce more than half of world's cocoa production, making them the core of the global cocoa supply chain (<https://ourworldindata.org/grapher/cocoa-bean-production>)

The project “*Nature-based Climate Adaptation in the Guinean Forests of West Africa*,” implemented in Côte d’Ivoire, Guinea, and Ghana, responds to the interconnected challenges of climate change, forest degradation, biodiversity loss, and gender inequality. The project seeks to move communities beyond short-term coping strategies toward more sustainable, gender-responsive adaptation strategies that protect and restore forest ecosystems. It applies a holistic, systems-based approach across six landscapes, working at both community and landscape levels to support locally relevant NbS. Through community participation and gender-responsive planning, the project aims to restore degraded forests and key habitats, reduce pressure on forest ecosystems, and strengthen the adaptive capacities of women and their communities.

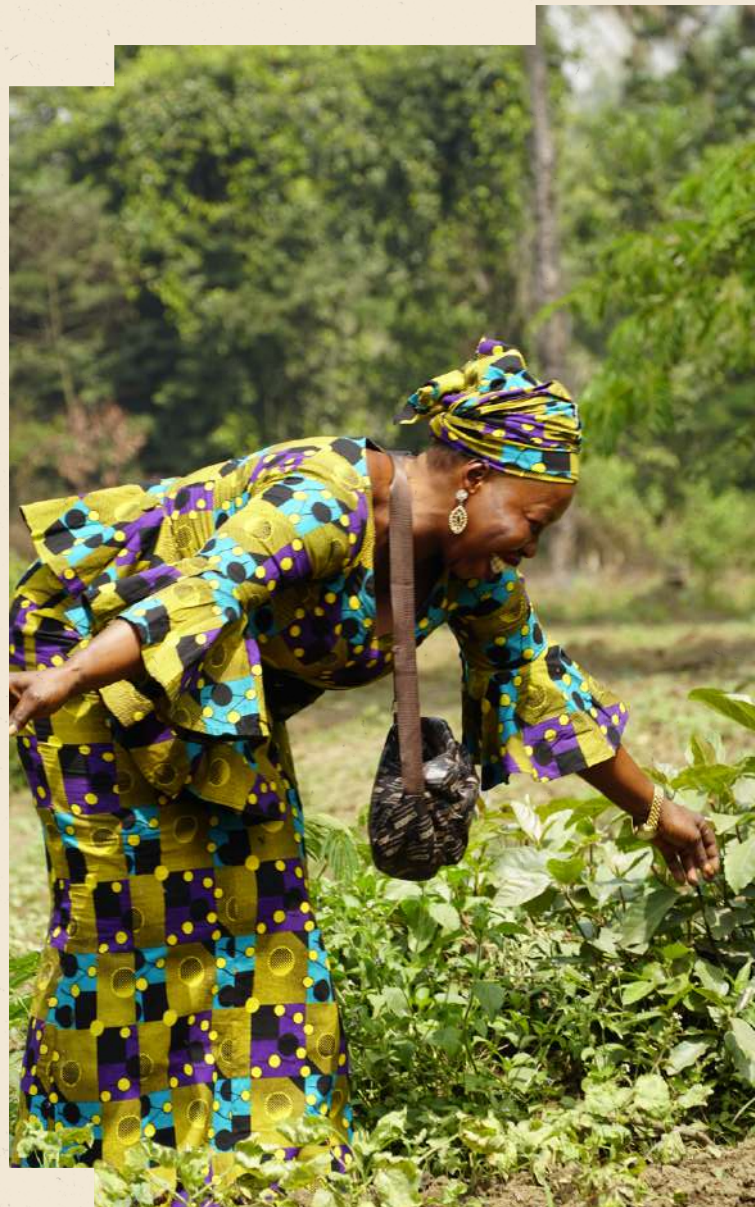


Photo: WUSC and CECI

The project focuses on three main objectives:

1✓

Strengthening women’s leadership in evidence-based and gender-transformative climate adaptation planning,

2✓

Increasing gender-responsive restoration of degraded forests and habitats with biodiversity benefits, and

3✓

Expanding investments in Nature-based adaptation actions that generate income opportunities for women while supporting biodiversity conservation.

Key project activities include consultations with women and the documentation of Indigenous knowledge related to biodiversity and forest use, the development of biodiversity baseline databases, forest restoration and community training and technology support for restoration actions, capacity-building on women-led business development, market-system analyses of nature-based business and livelihood opportunities, and the development of business cases to attract investment from private investors and public sector donors. The project also supports capacity-building on advocacy and policy dialogue strategies to strengthen women's leadership, as well as training on Free, Prior and Informed Consent and land rights.

Project as an NbS:

- The project strengthens the capacity of women's groups and community members to support sustainable and gender-responsive forest restoration. This is achieved through awareness-raising among communities and women's groups on the benefits of diversified landscapes, as well as training for nursery attendants in the domestication and propagation of multipurpose tree species used for food, non-timber forest products, medicine, and other livelihood purposes. The project also provides training and coaching to women's organizations and local stakeholders to enhance women's participation in household and community decision-making related to forest restoration.
- The project further tests, demonstrates, and implements best-fit practices for gender-responsive landscape restoration. This includes establishing on-farm demonstration plots across target zones, designing diversified, gender-responsive, and economically viable agroforestry systems, and planting multipurpose tree species at appropriate restoration sites. The selection of tree species for reforestation is informed through community consultations, with particular attention to women's Indigenous knowledge of biodiversity and forest use.
- During the inception phase, an in-depth literature review was conducted to assess the social, economic, and environmental context of each project target area. The review covered environmental conditions, drivers of degradation, key livelihood practices, existing governance mechanisms, relevant laws and regulations, and recent or ongoing development initiatives. It also examined lessons learned from previous conservation and NbS projects to identify effective approaches, gaps, and community capacity for adaptation and NbS implementation. These findings informed the overall project implementation plan, supported stakeholder identification, and guided the design of fieldwork for a baseline survey study. The project also conducted site-specific Gender-based Analysis Plus and vulnerability assessments at social, economic and biodiversity levels. A baseline survey was then conducted to validate the findings, consult on project design and implementation, collect recommendations to strengthen the project's monitoring and evaluation framework, and establish baseline values for



C
1



C
2

indicators for monitoring. Overall, consultations were conducted with communities in the six landscapes across the three countries during the project inception phase (Criteria 1 and 2).

- Although the Guinean Forests are recognized for their exceptional biodiversity, existing knowledge of their species composition remains limited, particularly beyond well-documented birds and mammals. Vulnerability assessments conducted during the project implementation planning phase found that biodiversity information in the target landscapes was fragmented, with limited systematic data on key indicator groups such as insects and plants. To address this gap, the project applied DNA barcoding biodiversity assessment method to generate rapid and large-scale data on species diversity and distribution. Developing a first baseline dataset on the patterns of biodiversity, this work also supports the application of technologies such as metabarcoding, environmental DNA, and AI-supported audio monitoring, which support low-cost, large-scale biodiversity assessments. Furthermore, it provides an evidence base needed to inform and structure future climate adaptation planning, biodiversity management, and support investment decisions.

While the project's monitoring framework does not include specific indicators or mechanisms for identifying potential negative biodiversity impacts arising from restoration activities, the planning of these activities has been informed by documented good practices. This helps reduce the likelihood of adverse effects, although a more explicit monitoring mechanism would strengthen the project's ability to detect and respond to unintended biodiversity outcomes over time. In addition, the project's relatively short implementation period limits its ability to achieve significant improvements in ecosystem connectivity, as such outcomes typically require longer time frames to materialize and be measured (Criterion 3).

- The project supports the development of gender-responsive market systems for Nature-based Solutions by identifying business and livelihood opportunities that contribute to climate change adaptation, biodiversity benefits, and women's economic empowerment. A gender-responsive market systems analysis was completed to assess nature-based business and livelihood opportunities, supported by the design of research tools, literature reviews, stakeholder consultations, data collection, interviews, analysis, reporting, and validation workshops. Local researchers were also trained in data collection and analysis to strengthen local capacity and support context-specific evidence generation.

The project further supports innovation and investment in gender-responsive NbS through business competitions, challenge grants, and technical assistance. This includes the development and implementation of a business grant challenge management and monitoring plan, the disbursement and oversight of challenge grants, and technical support for women's groups, cooperatives, and businesses working on non-timber forest products, nature-positive agriculture, commercialization, and



C
3



C
4

climate-resilient business adaptation. The project also engages women-led civil society organizations, policymakers, government officials, and potential investors to promote gender-responsive livelihood models for NbS. Activities include consultations during national budget planning and reporting processes, gap analyses with policymakers, development and sharing of investment and business cases, gender analysis of business cases, and preparation of protocols to guide inclusive consultations. In addition, the project facilitates the participatory design and operationalization of Payment for Ecosystem Services and other incentive schemes in target landscapes to encourage community participation, particularly by women, in forest restoration and Nature-based climate adaptation (Criterion 4).

- As part of the project's governance framework, National Advisory Committees have been established in each country to provide overall strategic guidance and ensure alignment with the project's objectives. Their responsibilities include reviewing and endorsing country project implementation plans, annual budgets, annual reports, and work plans, as well as supporting the resolution of strategic-level issues and risks. The National Advisory Committees meet twice a year and provide contextual analysis to inform country-level workplans, implementation methodologies, and tailored approaches to improve project delivery. Meetings have included stakeholders from public institutions, the private sector, civil society organizations, trade authorities, community representatives, and the donor partner. This governance mechanism also supports communication and coordination between local governments and national-level actors. Local governments involved in the project are able to contact members of the National Advisory Committees in each country when needed. Furthermore, a feedback and grievance mechanism has been developed and tailored to the specific context of each country.

At the landscape level, project intervention zones often include several territorial entities, such as municipalities or districts. Communication between these entities and higher administrative levels, including sub-regions and regions, is facilitated to ensure that interventions are recognized, comply with relevant laws and regulations, and receive approval from the appropriate authorities. These authorities may also review proposed activities, request adjustments, and monitor compliance (Criterion 5).

- Several analyses, including vulnerability assessments, land-use analyses, gender role assessments, and reviews of local laws and regulations related to the environment, local development, women's rights, agriculture, and conservation, were consulted for each landscape. These analyses informed the identification of rights, usage of and access to land and resources. In addition, the project conducts awareness-raising campaigns and Prior, Free and Informed Consultations to strengthen respect for the rights of local communities and support more inclusive and rights-based project implementation (Criterion 6).



C
5



C
6

- The project conducted a diagnostic study to identify gaps and opportunities for integrating Social and Solidarity Economy practices into national policy frameworks. Building on this analysis, policy briefs were developed for Côte d'Ivoire, Ghana, and Guinea to support advocacy with relevant authorities and promote the recognition of Social and Solidarity Economy approaches within climate adaptation and livelihood strategies (Criterion 8).



C
8



Photo: WUSC and CECI

CASE STUDY

05

CONTRIBUTION

Alden Braul

Gender Transformative Climate Adaptation



LOCATION

Cameroon, Chad
(Longone-Chari river system)



Photo: CLWR/Louanicom

TYPE OF ECOSYSTEM



Sahelian semi-arid savanna, including associated freshwater



Floodplain and wetland ecosystems of the Lake Chad and Chari-Logone basin



MAIN SOCIETAL CHALLENGES

Food Security
Disaster Risk
Loss of Income



MAIN DRIVERS OF DEGRADATION

Ecosystem degradation due to climate change
Overgrazing
Soil fertility loss
Woodcutting
Pollution



MAIN NbS APPROACHES

- Climate Smart Agriculture
- Assisted natural regeneration and enrichment planting
- Improved water management
- Improved livestock management



EXPECTED SOCIETAL OUTCOMES

**For 128,114 beneficiaries
(including 76,971 women):**

**Enhanced
food security
+ enhanced
livelihood**



EXPECTED BIODIVERSITY OUTCOMES

**Ecosystem restoration,
Improved water security**



EXPECTED CLIMATE OUTCOMES

**Improved low-carbon,
climate-resilient economies**

Floods, conflict, and climate change are severely impacting communities in the Lake Chad basin. The region faces multiple, interconnected drivers of environmental degradation: Overgrazing and pollution have led to the loss of valuable fish stocks and the introduction of invasive species, fast replacing native flora. In addition, agricultural runoffs contribute to eutrophication of the lake, while heavy reliance on wood for cooking drives deforestation, desertification, and soil erosion.

The environmental pressures also have significant social impacts. Increased sedimentation further degrades water systems, and the growing scarcity of fuelwood forces women to travel longer distances for collection, heightening their exposure to sexual and gender-based violence. At the same time, ongoing conflict involving Boko Haram, as well as tensions among herders and fishing communities, continues to destabilize the region. The local economy depends heavily on agriculture, pastoralism, and fishing, and the livelihood of the communities dependent on Lake Chad's basin is increasingly threatened by unsustainable resource use, climate change, and broader environmental degradation.

To respond to these challenges, Lutheran World Federation Chad, Lutheran World Federation Cameroon, and Canadian Lutheran World Relief have designed a gender-transformative climate change adaptation project around Lake Chad. The project seeks to strengthen climate-resilient food systems, livelihoods, and environmental and human well-being, particularly for women, girls, and other vulnerable groups. It equips livelihoods, food systems, and local communities with tools and resources that build resilience and enable climate change adaptation. It is based on the fact that resilient ecosystems can generate lasting improvements in people's quality of life while enhancing their capacity to cope with climate-related shocks and stresses.



Photo: CLWR/Louanicom

Project's key activities include:

1

Supporting the restoration and upgrading of irrigation systems,

2

Strengthening the capacities of community groups and governance bodies in climate adaptation and NbS, and

3

Identifying sustainable livelihood opportunities that are financially viable, nature-based, and grounded in the responsible use of biodiversity.

Project as an NbS:

- A Rapid Landscape Assessment was conducted to evaluate the social, economic, and environmental pressures in the region. The result of the assessment showed that climate-related resource scarcity is contributing to conflict, reduced incomes, increased burdens on women, and greater youth vulnerability to radicalization. A gender analysis further indicated that communities, particularly women and other vulnerable groups, are losing their capacity to adapt as soil fertility declines, deforestation increases, rangelands become less productive, and ecosystem resilience weakens. To address these challenges, the project implements a range of NbS practices, including climate smart agriculture, assisted natural regeneration, reforestation, improved water management, native grassland restoration, sustainable rangeland and livestock management, and sustainable fishing. Water management activities include water retention basins and the construction of primary, secondary, and tertiary irrigation channels, while sustainable fishing measures include the use of larger mesh sizes, the protection of spawning areas through no-fishing zones, and pollution reduction. By combining these interventions, the project will help restore ecological functionality, contributing to more climate-resilient local economies. Depending on the specific NbS practices being implemented, a set of biodiversity outcomes has been identified and benchmarked, particularly those related to agricultural landscapes. Most of these outcomes are monitored periodically throughout the project cycle, while others are assessed at baseline and endline to measure change over time. (Criteria 2 and 3).
- During the project design, community stakeholders were consulted on the types of NbS practices to be implemented in their respective communities based on regional adaptation strategies. The selection of geographic intervention areas was undertaken through a transparent process, informed by input from government representatives, community leaders, and local stakeholders. Similarly, the selection of project participants followed a participatory and transparent approach, with contributions from community members and local leaders. To promote accountability and community oversight, the names of selected participants and the selection criteria were publicly posted, allowing community members to review the process and provide feedback (Criteria 1 and 5).



→ The project's selected NbS interventions are largely informed by previous experience, and some of their direct and indirect benefits and costs have been identified, but further analysis is needed. Furthermore, the project identifies and supports nature-based livelihood opportunities that are financially viable and grounded in the sustainable use of biodiversity, with particular attention to women, girls, and other vulnerable groups. These opportunities are supported through investments in market-based public-sector initiatives as well as direct support to project stakeholders. However, further analysis is needed to better understand how private-sector engagement and investment can help establish sustainable markets and strengthen the project's long-term viability (Criterion 4).



C
4

→ This project uses Utilization-Focused Evaluation to develop a learning framework which supports adaptive management and helps guide implementation decisions both during and beyond the life of the project. Furthermore, at further stages of implementation, the project considers using the Ex-Post Evaluation Toolkit for Adaptation⁶ to support longer-term learning beyond the intervention period (Criterion 7).



C
7



Photo: CLWR/Louanicom

⁶ [Ex-Post Evaluation Toolkit for Adaptation](#) is designed to assess whether project outcomes have been sustained over time, identify the factors influencing their sustainability, and determine how these sustained outcomes contribute to local resilience

CASE STUDY

06

CONTRIBUTIONS

Louis-Philippe Potvin and
Fernande Abanda

Feminist climate action in Western Africa (ACF-AO)



LOCATION

Côte d'Ivoire,
Guinée-Bissau, Senegal,
Togo



Photo: Par Abdoulaye Dieng Diagne

TYPE OF ECOSYSTEM



Coastal and
Island regions



MAIN SOCIETAL CHALLENGES

Ecosystem Degradation
Food Security
Loss of Income
Women inclusion in decision making
process and management of natural
resources



MAIN DRIVERS OF DEGRADATION

Climate Change
Human Activities



MAIN NbS APPROACHES

- Agroecology
- Restoration
- Habitat protection



EXPECTED SOCIETAL OUTCOMES

Enhanced food security and enhanced livelihood for 56,000 direct beneficiaries

(including 45,497 women) and 401,420 indirect beneficiaries



EXPECTED BIODIVERSITY OUTCOMES

Increased protection of ecosystems and biodiversity threatened by climate change



EXPECTED CLIMATE OUTCOMES

Improved low-carbon, climate-resilient economies



Photo: Cherif Khoury

Coastal and island areas in Côte d'Ivoire, Guinea-Bissau, Senegal, and Togo contain highly biodiverse ecosystems, including mangroves, wetlands, and island systems. These ecosystems provide essential services for communities whose livelihoods depend on fishing, oyster farming, shellfish harvesting, beekeeping, and small-scale agriculture. However, climate change is placing increasing pressure on these ecosystems through coastal erosion, saltwater intrusion, violent winds, flooding, and prolonged drought. Unsustainable agricultural practices have further contributed to soil degradation, threatening food security and increasing poverty and migration pressures. These impacts disproportionately affect women, and certain ethnic groups, who are often excluded from decision-making and climate governance. In particular, women carry primary responsibility for securing food, water, firewood, and medicinal resources for their households, making them especially vulnerable as environmental conditions deteriorate.

The “*Feminist Climate Action in West Africa (ACF-AO)*” project seeks to strengthen community-based climate adaptation by supporting the leadership and participation of women and youth in biodiversity governance, climate action, and local decision-making. The project is grounded in the recognition that rural women and youth are strategic agents of change in climate adaptation, despite the structural and patriarchal barriers they face.



Photo: Clementine Chevallier

ACF-AO activities adopt a gender-transformative approach built around three interconnected areas of action:



It supports women's organizations and networks to increase their influence in climate policy and local decision-making.



It strengthens the capacity of local governance bodies and women's groups to restore and protect ecosystems, apply agroecological practices, and use local biodiversity knowledge to adapt to climate change.



It promotes low-carbon, resilient economies through solar technologies, food production and preservation equipment, and training in business, management, savings, and credit.

A central feature of the project is its feminist and localized implementation approach. ACF-AO works with local feminist organizations, women-led groups, mixed-gender organizations, and male allies who can support positive masculinity and help challenge harmful gender norms. The project builds on long-term relationships of trust with local partners, recognizing them as experts in their own contexts and supporting them through financial, organizational, and political assistance. This approach aims to strengthen women's collective voice, improve their adaptive capacity, and contribute to more equitable and sustainable climate action.

ACF-AO as an NbS:

→ ACF-AO builds on strong, long-standing relationships between its implementing partners and local organizations across intervention sites in Senegal, Togo, Guinea-Bissau, and Côte d'Ivoire. Stakeholder identification began at the project conceptualization stage, with several key actors involved in its development. This process was further strengthened through the baseline study, which helped clarify consultation frameworks, identify relevant actors, and document local challenges. The findings were presented to and validated by stakeholders. Through regular communication, monitoring missions, local facilitators, and permanent field presence in some areas, partners maintain close engagement with communities and a strong understanding of local realities. Consistent with the project's feminist approach, local needs and priorities were identified by rural women leaders and validated through consultations with rights holders and beneficiaries, who played an active role in co-creating the project. Initial activities also included participatory assessments of local ecosystems' climate vulnerability and the identification of gender-sensitive adaptation measures and strategies. These consultations informed the project's gender strategy, which examines power dynamics, underlying vulnerabilities, and ways to strengthen gender-specific adaptive capacities (Criteria 1 and 5).

→ In the project site, mangrove and coastal zone rehabilitation activities are complemented by soil restoration, wildlife protection, and sustainable agricultural land management interventions. Actions to protect mangrove areas from deforestation and degradation include the strengthening of existing protected areas management such as community-managed marine protected areas. Ecosystem rehabilitation actions, such as the creation of community mangrove nurseries, also restore fish and shellfish breeding grounds. These actions are implemented with the active involvement of local communities, the integration of endogenous knowledge, and the participation of researchers and scientists to support sustainable conservation strategies.

Environmental studies, including climate vulnerability and biodiversity assessments, were conducted across all project sites to evaluate ecosystem conditions, habitat characteristics, natural resources, climate risks, and key drivers of degradation.



C
1



C
5



C
2



C
3

Led by local experts, these studies incorporated public participation, partner-specific assessments, and on-site verifications. These findings were then consolidated into a comprehensive environmental assessment and refined through validation planning processes. At project sites, protected area management committees also contribute by monitoring territories, maintaining communication with local communities, and documenting emerging environmental changes. Although a formal risk management plan has not been developed for ACF-AO, a risk and mitigation analysis was undertaken during the initial implementation phase and later refined through the environmental assessment and validation processes. Identified risks are reviewed and updated annually in monitoring reports, based on both scientific knowledge and local expertise (Criteria 2 and 3).

- The project also strengthens the climate resilience of rural women through economic and energy empowerment. This includes increasing women's access to and mastery of appropriate technologies and renewable energy solutions for food production, processing, and preservation, supported by the installation of solar and energy-efficient equipment and targeted technical training. In parallel, women's capacities in business management and marketing are enhanced through training in entrepreneurship, inclusive value chains, cooperative governance, and market access, including through the provision of small boats (pirogues) managed by women's collectives.

ACF-AO promotes agroecology practices such as micro-livestock, agroforestry, market gardening, beekeeping, and oyster farming. Mangrove restoration activities also support the recovery of fish and shellfish breeding habitats, enabling sustainable fishing activities. When combined with beekeeping, these interventions promote both biodiversity conservation and alternative income generation for farmers and livestock keepers. Evidence shows that agroecological practices contribute to sustainable livelihood improvements and increased household income, due to reduced production costs and lower reliance on purchased inputs. Although the economic viability of nature-based livelihoods such as agroecology is supported by numerous studies and previous field experience, a project-specific economic evaluation has not been conducted. Furthermore, short-term costs with long-term gains of these activities are currently being assessed through an independent evaluation (Criterion 4).

- As ecological processes extend beyond national boundaries, ACF-AO created governance committees and coordination mechanisms to bring together representatives from partner organizations from each of the participating countries twice a year. These structures support collective and inclusive decision-making, ensuring that the interests of each partner and the specific realities of each country are considered. Furthermore, cross-border cooperation activities among partners are encouraged as a means of strengthening regional learning, improving coordination, and supporting more coherent ecosystem management across interconnected landscapes. Furthermore, ACF-AO management, monitoring, and evaluation processes are designed to foster synergies across countries and facilitate knowledge exchange among beneficiaries.



C
4



C
5



C
7

Annual sub-regional workshops are organized to bring together project managers from the participating countries to review progress, identify lessons learned, and inform future actions. Field exchanges among project beneficiaries are also organized to share experiences and practical knowledge. These synergies and their impacts are documented and assessed on an annual basis (Criteria 5 and 7).

- ACF-AO supports the scaling and replication of its lessons learned by making project knowledge accessible to target audiences, enriching public discourse, informing policy dialogue, and inspiring action toward more just and sustainable societies. It engages a broad range of audiences in implementing countries and Canada, through social media, videos, workshops, and public outreach activities, with particular attention to raising awareness and encouraging engagement among young people. For example, the photo exhibit “Habiter le changement” organized in Canada, showcased how women in West Africa are adapting to climate change. The exhibit highlighted the cultural contexts and work undertaken through ACF-AO in the Saloum Delta in Senegal, the Bijagós Archipelago in Guinea-Bissau, and the areas surrounding Lakes Togo and Zowla in Togo. Furthermore, short videos were produced to showcase the project’s impacts and the changes achieved across the countries of implementation. The videos highlight feminist climate action through women’s role in defending mangroves, generating sustainable livelihoods, and strengthening women’s power and agency (Criterion 8).



C
8



Photo: Emmanuel Ramos

CASE STUDY

07

CONTRIBUTIONS

Christopher Roy and
Andréanne Martel

Regenerating Seascapes for People, Climate and Nature (ReSea)



LOCATION

Kenya (Kilifi Seascape), Tanzania (Tanga-Pemba Seascape), Mozambique (Inhambane Seascape), Comoros (Moheli Seascape), Madagascar (Antsiranana Seascape)

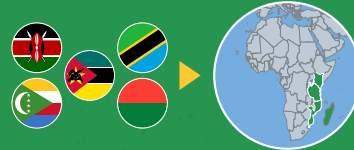


Photo: ReSea Project

TYPE OF ECOSYSTEM



Coastal



Marine



MAIN SOCIETAL CHALLENGES

Ecosystem Degradation and Biodiversity Loss
Climate Change
Economic and Social Development



MAIN DRIVERS OF DEGRADATION

Escalating Regional Threats
Urbanization
Resource Exploitation
Ecosystem Degradation
Flooding
Sea-Level Rise



MAIN Nbs APPROACHES

- Restoration, conservation and protection of coastal and marine areas, including mangroves, seagrass and coral reefs



EXPECTED SOCIETAL OUTCOMES

**70,000
beneficiaries
(including
47,520 women)**

**Enhanced Food Security
and Improved Livelihood**



EXPECTED BIODIVERSITY OUTCOMES

- Restoring ~84 hectares of coastal and marine areas
- Improved effectiveness, equitable and gender-responsive conservation of Western Indian Ocean marine protected areas and locally managed marine areas



EXPECTED CLIMATE OUTCOMES

**More climate-resilient
economies through
reduced coastal erosion
and flooding, shoreline
protection, ecosystem
resilience and reduced
community vulnerability to
climate impacts**

Marine and coastal ecosystems in the Western Indian Ocean (WIO) are facing escalating threats from climate change, rapid urbanization, population growth, coastal development, land reclamation, and unsustainable resource exploitation. The impact of climate change in the area is worsening coral bleaching, flooding, extreme precipitation and wind events, coastal erosion and sea-level rise, contributing to rapid ecosystem degradation. As a vital resource for food security and livelihoods of coastal communities, the declining conditions of these ecosystems are negatively impacting women and people in situations of vulnerability and marginality disproportionately, due to their dependence on natural resources and exclusion from decision-making processes. Gender-based Analyses reveal that in WIO, climate change impacts, risks, opportunities, and natural resource knowledge are highly differentiated by intersectional identity factors, including sex, age, ethnicity, and socio-economic status. Unequal power relations confine the vulnerable populations to traditional roles with fewer rights and less decision-making power, while economic insecurity weighs heavily on women who are concentrated in less lucrative blue economy value chains in the region, such as reef gleaning in Comoros, small-scale fish trade in Kenya, octopus fisheries in Madagascar and Tanzania, and aquaculture in Mozambique.

The “*Regenerative Seascapes for People, Climate and Nature (ReSea)*” project aims to reduce coastal communities' physical and socioeconomic vulnerability to climate change impacts in the WIO by supporting the implementation of the African-led Great Blue Wall (GBW) Initiative and establishing a network of sustainable, resilient, and inclusive seascapes across Comoros, Kenya, Madagascar, Mozambique, and Tanzania.



Photo: ReSea Project

The project's main activities include:



Strengthen and expand inclusive marine and coastal conservation through improved MPA/LMMA governance and management.



Design and implement gender-responsive NbS for Adaptation, including restoration and sustainable management of mangroves, coral reefs, and seagrass.



Build community, practitioner and government capacity to assess climate risks, design NbS and manage coastal resources.



Support sustainable blue livelihoods and women's economic empowerment through nature-based value chains and enterprises, including through a blue economy incubator.



Strengthen policy, partnerships and regional coordination through the Great Blue Wall, knowledge exchange and enabling conditions for scale.



Photo: ReSea Project

ReSea's program is structured around three main pillars: **Blue Planet** focuses on increasing effective governance of community-led marine protected areas (MPAs) and locally managed marine area (LMMA), **Blue Nature** builds partner capacity to implement NbS for adaptation and access to NbS solutions through effective community-led mangrove restoration, coastal forest protection, shoreline buffering, and coral reef protection, and **Blue People** ensures gender responsiveness through capacity building for women and youth, in all their diversity, in nature-based value chains and strengthening their voices in organizations and networks.

ReSea as an NbS:

- At the design stage of the project, the main societal challenges and their drivers and the project focus areas were identified through consultation processes and available literature review based on GBW data. During project implementation, further in-depth consultations provided information for selecting and co-creating NbS actions based on the needs and specificities of each region. Through this process, 9 demonstration sites on NbS for adaptation are identified and set up with a particular focus on inclusive ecosystem restoration solutions, such as mangrove restoration and coral reef and seagrass protection. For each intervention site, regional coastal and marine biodiversity information for coral reefs, mangrove forests and seagrass meadows is compiled, regional MPA/LMMA expansion scenarios are developed in consultation with national authorities, local partners and scientists, and monitoring guidelines and tools are developed specifically to track progress towards biodiversity net gain on ecosystems. In addition, a series of training sessions on NbS for adaptation are organized for local partners to increase equitable access to technologies and promote effective and inclusive ecosystem restoration solutions (Criteria 2, 3, and 7).
- At the project inception phase, ReSea organized stakeholder engagement, need assessments and co-creation sessions to inform the design and implementation of NbS actions, as well as discussing strategies for providing technical support and capacity enhancement activities. As an example, in Kenya and through collaboration with the County Government of Kilifi, stakeholders were brought together to carry out a gender-inclusive review of the Participatory Climate Risk Assessment Report and identify climate intervention priorities. Such processes enabled community-led action in addressing the climate-related challenges faced by authorities in the implementation sites. (Criteria 1, 2 & 5).
- ReSea implements a series of activities to increase the project's impact at the national and regional levels. To support the GBW initiative, the project aims to develop a Red List of Ecosystems for the WIO region and establish an inclusive regional coordination mechanism and steering committees to support the GBW. It also plans to conduct advocacy and communication actions, as well as provide organizational development support to WIO partners and help innovators join the GBW ocean venture building programme to scale up their business solutions. Furthermore, ReSea aims to conduct regional multi-stakeholder cross-sectoral situation analysis to identify opportunities for including the biodiversity-climate-gender nexus in national plans, create inclusive networking spaces for LMMAs, MPAs, and Seascapes at national and regional levels, develop recommendations and action plans for LMMA based on lessons learned, and carry out advocacy actions on climate change adaptation targeting decision makers, influencers, and the general public (Criterion 8).



CASE STUDY

08

CONTRIBUTION

Michael Salomons

Nature Positive Food Systems for Climate Adaptation (Nature+)



LOCATION

Ethiopia, Kenya,
Mozambique, Zimbabwe



Photo: Dale Friesen

TYPE OF ECOSYSTEM



Forests



MAIN SOCIETAL CHALLENGES

Water Security
Land Degradation



MAIN DRIVERS OF DEGRADATION

Climate Change
Human Activities



MAIN NBS APPROACHES

- Conservation Agriculture
- Assisted Natural Regeneration and Enrichment Planting
- Improved Water Management
- Improved livestock and rangeland management



EXPECTED SOCIETAL OUTCOMES

Improved Food Security and Livelihoods for 75,000 beneficiaries

(35,000 women) direct beneficiaries



EXPECTED BIODIVERSITY OUTCOMES

Restored and Protected Forest Ecosystems, Enhanced Soil Health



EXPECTED CLIMATE OUTCOMES

Enhanced Climate-Resilient Livelihoods



Photo: Simon Mazano

Afromontane and sub-Afromontane landscapes in Ethiopia, Kenya, Mozambique, and Zimbabwe face increasing climate risks, including rainfall variability, droughts, floods, and emerging pests and diseases, which are compounded by land degradation, soil erosion, biodiversity loss, weakened ecosystem functions, and pressure on natural resources. These landscapes are internationally recognized for their biodiversity significance. They have experienced significant weakening of the environmental resources that historically supported community resilience, including healthy forests, intact biodiversity, and productive soils. This degradation has been driven partially by poor livestock and cropland management practices, insecure land tenure systems, and increasing pressure on natural resources. Furthermore, these areas are erosion-prone and affected by severe landscape degradation, which has contributed to the abandonment of farm and grazing lands. Projected increases in rainfall variability, droughts, floods, and extreme weather events are expected to further accelerate land degradation and soil erosion. As local livelihoods depend largely on agriculture, women, girls, youth, and other vulnerable groups are particularly affected due to gender inequalities, unequal access to resources, heavy workloads, and their central role in food systems and natural resource management.

The “*Nature Positive Food Systems for Climate Adaptation (Nature+)*” project conceptualizes 10 rural landscapes in Ethiopia, Kenya, Mozambique, and Zimbabwe as socio-ecological food systems, in which smallholder farming households are embedded within rural communities and broader agroecological landscapes. The project aims to restore ecological functionality, improve food security and human well-being, and support the transition toward low-carbon, climate-resilient rural economies in the targeted countries. To achieve this, Nature+ seeks to reduce the vulnerability of food systems by strengthening their capacity to absorb climate-related and socio-economic shocks, reducing their sensitivity to climate impacts, and enhancing the adaptive capacity of local actors, particularly women, girls, youth, and other vulnerable groups.

Nature+ is designed around three interlinked pillars:



Scaling up Nature-based Solutions such as conservation agriculture, assisted natural regeneration and enrichment planting, improved water management, and improved livestock and rangeland management



Promoting climate-resilient livelihoods based on the sustainable use of biodiversity, and



Strengthening inclusive governance by increasing the decision-making and leadership roles of women and vulnerable people in community and landscape-level management systems.

The project activities include supporting the conservation and use of Indigenous crops, vegetables, fruits, fodder, trees, and medicinal plants; improving agricultural value chains; and diversifying land uses to strengthen agroecosystem resilience. These efforts improve food and nutrition security and enhance livelihood resilience for groups that depend heavily on local natural resources. Landscape-specific livelihood and market opportunity assessments are conducted to inform capacity-building strategies, and activities related to biodiversity-based livelihoods, such as sustainable timber and non-timber forest products, beekeeping, and other complementary agroecosystem activities. Nature+ also aims to map Indigenous genetic resources and ecological knowledge, recognizing that such knowledge is often gender- and age-specific, and explores Payment for Ecosystem Services mechanisms, including carbon credits, with relevant partners and frameworks.



Photo: Carol Thiessen

Nature+ as an NbS:

- A Socio-Ecological Production Landscapes (SEPL) study⁷ was conducted across the 10 project target areas to assess landscape resilience, monitor changes over time, encourage community participation in land-use planning and governance, and inform policy and planning processes. Diverse stakeholder groups were engaged to score 20 dimensions of landscape resilience, referred to as SEPL indicators, based on both the current status of each indicator and its perceived trend over time. The results of the study indicated that the project's relative strengths are associated with landscape diversity and recovery, ecological interactions and innovations in agriculture and conservation. Key areas requiring further attention were identified as biodiversity documentation, management of common resources, and social capital. Based on these findings, targeted capacity-building activities were planned, such as training for biodiversity monitoring and enhanced support for policy advocacy and campaigns around improved resource governance (Criteria 1 and 2).
- At each target site, the project conducts landscape-level assessments to identify, verify, and prioritize the most appropriate Nature-based Solutions interventions. These assessments include landscape-level food systems analysis, including using IUCN's Restoration Opportunities Assessment Methodology, to guide restoration planning and implementation. The project will also assess and document the role of local Indigenous knowledge in biodiversity management, crop production, and livestock systems, ensuring that locally grounded ecological knowledge informs project design and implementation and its NbS activities (Criterion 3).
- Nature+ supports the design and implementation of sustainable livelihood and market opportunities based on the sustainable use of biodiversity in target areas. Qualitative livelihood and market opportunity assessments are conducted through focus group discussions and key stakeholder interviews to identify viable and marketable products and inform the design of project-supported agricultural and biodiversity-based livelihood activities such as beekeeping, local poultry production, and the commercialization of Indigenous tree seedlings through community tree nurseries. The project also explores Payment for Ecosystem Services mechanisms, including potential carbon credit opportunities. The project also promotes peer-to-peer learning through farmer exchanges, community exchanges, farmer field schools, and cross-learning events focused on practical demonstrations of nature-based livelihoods. To strengthen market access, the project facilitates business linkage meetings between farmers and potential buyers, with particular attention to improving market opportunities for women and other vulnerable groups (Criterion 4).



⁷ The [SEPLS Indicators](#) are a free, community-based tool comprising 20 indicators that support collaborative assessment of the socio-ecological processes for landscape and seascape resilience.

- Nature+ strengthens local governance systems, such as natural resource management committees, to improve community participation and leadership in decision-making at both the community and landscape levels. With support from implementing partners, community groups are empowered to advocate for policies that benefit local communities and the ecosystems on which they depend. The project also supports collaboration with key stakeholders, including local businesses and national parks, to build stronger and more sustainable partnerships for long-term landscape governance and natural resource management (Criterion 8).



Photo: Smart Edge Media

CASE STUDY

09

CONTRIBUTIONS

Yakhya Gueye,
Abou Ba and
Liliane Assogba Sessou

Natur'ELLES

LOCATION

Senegal (Sine-Saloum and
Casamance Deltas)



Photo: Socodevi - Natur'ELLES

TYPE OF ECOSYSTEM



Mangrove ecosystems
of marine protected
areas



Community heritage
areas and territory



MAIN SOCIETAL CHALLENGES

Climate Change Adaptation
Ecosystem Degradation and
Biodiversity Loss
Food Security



MAIN DRIVERS OF DEGRADATION

Climate Change
Urban Expansion
Declining Environmental Conditions
Deforestation



MAIN NbS APPROACHES

- Restoration of Mangrove ecosystems and inland forests through supporting community-based implementation of Ecological Restoration



EXPECTED SOCIETAL OUTCOMES

For 8,000 direct beneficiaries (including 6,000 women) and 85,000 indirect beneficiaries in 113 villages

Enhanced inclusive and equitable governance of natural resources

Improved fishery resources and enhanced food security

Improved resilient livelihood and better environmental services



EXPECTED BIODIVERSITY OUTCOMES

Restored and conserved mangrove ecosystems



EXPECTED CLIMATE OUTCOMES

Improved habitat resilience and increased blue carbon sinks

The mangroves of Senegal's Sine-Saloum and Casamance Deltas are among the planet's richest ecosystems, critical for biodiversity conservation and climate-change adaptation and mitigation for their vulnerable communities. These environments support exceptional biodiversity by providing habitat, shelter, breeding, nursery, and feeding areas for terrestrial and aquatic species across coastal and pelagic zones, while maintaining connectivity between terrestrial and marine trophic chains. Beyond biodiversity, these mangroves deliver vital environmental services. However, the Sine-Saloum and Casamance mangroves face severe threats from climate change and environmental degradation, having lost more than one quarter of their area since the 1980s⁸ due to combined pressures of rising sea levels, intensified marine storms and urban expansion. In addition, wood harvesting for firewood/charcoal, rice cultivation, and salt production change land use and alter water dynamics and salinity in bolongs. Water contamination, watershed erosion, overfishing, and habitat fragmentation further degrade aquatic species' spawning grounds and egg-laying sites, affecting fish, crustaceans, and molluscs. Despite these challenges, mangroves remain central to livelihood and economic development in this area: the deltas' economies depend heavily on artisanal fishing (fish and shrimp) and aquaculture (particularly oyster farming), with men practicing net fishing in lagoons, channels, and at sea, while women play a central role in bolong fishing, catching shrimp, crabs, oysters, and ark clams.

The *Natur'ELLES* project, implemented by multiple partners in Senegal's Sine-Saloum and Casamance, aims to address these challenges through the adoption of gender-responsive Nature-based Solutions to restore and preserve mangrove ecosystems across ten community in marine protected areas and indigenous and community heritage areas and territories (ICHAs), conserving biodiversity while directly supporting climate change adaptation for 8,000 vulnerable people (including 6,000 women) who depend on these resources for their livelihoods.

The project promotes inclusive and equitable natural resource governance, particularly for women, amplifies economic benefits from mangrove conservation, and delivers capacity-building through four key activities:

1

Implementing community-based Ecological Restoration and Management Plans based on NbS,

2

Developing a feminist environmental leadership program,

3

Supporting women's collective entrepreneurship, maintaining mangrove biodiversity and providing functional, and

4

Financial literacy programs for vulnerable women.

By reaching over 85,000 indirect beneficiaries across 113 villages, the initiative addresses three core outcomes:



Increase the uptake of NbS for mangrove conservation and to support biodiversity and adaptation to climate change,



Improved inclusive governance of natural resources, and



Enhanced conservation benefits for women and climate-vulnerable communities in marine protected areas.



Photo: Socodevi - Natur'ELLES

NbS in Kawawana: an ICHA in Casamance

- The project strengthens nurseries dedicated to the assisted natural regeneration (ANR) of mangroves in Kawawana; however, the plantations remain predominantly monocultures. Google Earth Engine Mangrove Mapping⁹ tool is used for spatiotemporal information and mapping and zoning of the area. Technical, organizational, and financial support is provided to the Kawawana Site Management Committee for implementation of the new management plan by monitoring and maintaining restored areas, and the restoration sites are monitored regularly. Furthermore, natural infrastructure development is supported to combat coastal erosion and control the hydro-sedimentary movement of saltwater intrusion. Sustainable fishing equipment exchange and oyster farming programs are implemented, along with the restoration of spawning grounds and nursery sites and reintroduction of aquatic species. Biannual experimental fishing sessions are conducted, and the collected data is compared with existing baseline data. Women are trained on non-timber forest products and equipped with low-carbon renewable-energy techniques, including the construction of improved cookstoves, straw charcoal production, and related practices (Criterion 2, 3 and 7).
- Kawawana site operates under a governance structure that includes a Site Management Committee with a Conflict Management Commission composed by Council of Elders, as well as the municipal Council. All stakeholders are identified and involved during general assemblies and during the renewal of the governing bodies. During the project design and implementation, this mechanism is used for consultation, co-creation, and circulation of data to the relevant stakeholders. Free, Informed, and Prior Consent (FPIC) has been formally obtained, and restoration sites are identified and validated through community collaboration with the existing committees and town halls (Criteria 1, 5 and 6).
- The project design considered alternative NbS solutions (Direct Planting, use of seeds or seedlings from nurseries and the Roots method) for the restoration of the sites. While ANR was decided as the most effective method, the economic analysis of all alternatives remained limited. An integrated, gender-sensitive evaluation of the economic value of biodiversity and environmental services in Kawawana is conducted with special focus on climate-change adaptation, and stakeholders are trained on cost-benefit analysis of environmental services. Natur'ELLES also seeks to create a pilot Payment for Environmental Services (PES) mechanism designed to benefit women and their communities. This PES initiative is grounded in an economic assessment quantifying the value of blue carbon sinks in target areas (Criterion 4).



⁹ [Google Earth Engine Mangrove Mapping](#) is a toolset for mapping and monitoring mangrove ecosystems using satellite imagery in Google Earth Engine.

- The project implements comprehensive capacity-building efforts focused on strengthening institutional governance, enhancing technical skills, and promoting gender equality in mangrove conservation and ecosystem restoration. The process began with a gender-sensitive participatory assessment of Kawawana communities, followed by targeted training on NbS for mangrove restoration, environmental education programs in schools, and communication skills for ecosystem conservation and sustainable fishing. These trainings emphasize women's empowerment through functional and financial literacy training, eco-guard training (particularly for women), including rights education, and ecotourism guide certification on mangrove heritage. Additionally, it promotes gender equality through feminist awareness campaigns, social-art initiatives celebrating mangrove heritage, and comprehensive training programs on gender equality, gender-based violence prevention, and positive masculinities adapted to environmental and climate issues, complemented by community campaigns on these critical social topics.
- The project utilizes multiple communication channels (i.e., the Natur'ELLES communication team, IISD, and IUCN) to communicate and disseminate project achievements and lessons learned at the international level. While the project's contribution to biodiversity targets at national and global levels has been identified, a gap remains regarding climate change and other human well-being outcomes derived from the biodiversity actions in the project. IUCN's Contributions for Nature platform is used to calculate Natur'ELLES contributions to climate and biodiversity targets of Senegal. The project has yet to identify pathways for reporting these contributions and outcomes at the national level (Criterion 8).



C
8



Photo: UICN Casamence

CASE STUDY

10

CONTRIBUTION

Nicolas Guye Mbengue

Ecosystem-based Solutions for Sustainable Adaptation (SEDAD)

LOCATION

Mauritania, Senegal,
The Gambia

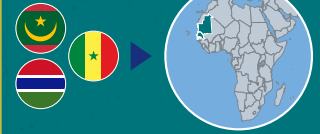


Photo: Mintou Faye

TYPE OF ECOSYSTEM



Coastal



Marine



MAIN SOCIETAL
CHALLENGES

Ecosystem Degradation
Socioeconomic Challenges



MAIN DRIVERS OF
DEGRADATION

Climate Change
Overexploitation of
Natural Resources



MAIN NbS APPROACHES

- Mangrove Restoration
- Mariculture



EXPECTED SOCIETAL OUTCOMES

Increased nature-based livelihoods for 33,034 direct beneficiaries

(19,390 women) and 103,599 indirect beneficiaries



EXPECTED BIODIVERSITY OUTCOMES

Restoration of Coastal, Marine, and Terrestrial Ecosystems



EXPECTED CLIMATE OUTCOMES

Improved climate-smart livelihoods

In Mauritania, Senegal, and The Gambia, climate change and gender inequality reinforce one another, increasing the vulnerability of rural women and girls whose livelihoods depend heavily on coastal, marine, and terrestrial ecosystems. In Mauritania, the Imraguen community in Banc d'Arguin National Park faces long-standing social, economic, and political constraints related to resource access, traditional hierarchies, and territorial control. These constraints particularly affect women, whose roles remain shaped by traditional norms. Although Imraguen women are recognized for their fish processing skills, they have limited access to fish, as fishermen often sell their catches to seasonal buyers with greater purchasing power. This reduces women's ability to process fish, preserve traditional practices, and generate income. Their limited livelihood options, weak participation in decision-making, and restricted influence over natural resource management are further compounded by low levels of education and social marginalization. In Senegal and The Gambia, the project operates in rural and isolated areas where women and girls face significant social, economic, and institutional barriers that limit their rights, opportunities, and participation in natural resource governance. Lower Casamance in Senegal is mainly populated by Diola communities, while Mandinka communities are predominant around Niumi and Jokadu National Parks in The Gambia. Across these areas, girls' access to education is constrained by domestic responsibilities, early marriage, limited services, and geographic isolation. Women and girls also face limited access to healthcare, high maternal health risks, nutritional deficiencies, and harmful social practices, with these challenges intensified by poverty and dependence on natural resources. Women's access to land, mobility, markets, and productive resources remains restricted by patriarchal norms and customary systems, while male migration linked to declining fish stocks has increased women's subsistence responsibilities.



Photo: Nicolas Mbengue

The “*Ecosystem Solutions for Sustainable Adaptation (SEDAD)*” project aims to strengthen climate change adaptation and resilience in selected coastal and marine ecosystems across Mauritania, Senegal, and The Gambia. The project supports the implementation and scaling of NbS that respond to climate vulnerability, ecosystem degradation, overexploitation of natural resources, and the socioeconomic challenges faced by local communities. SEDAD places women and young women at the centre of adaptation efforts by promoting inclusive ecosystem services, mangrove restoration and protection, sustainable and natural resource management, livelihood diversification, and participatory biodiversity governance. Through workshops, participatory diagnostics, local knowledge studies, biodiversity monitoring, and local adaptation planning, the project will generate evidence to guide decision-making and adapt interventions to national and local contexts. Overall, the project seeks to restore a sustainable relationship between communities and nature by improving livelihoods, strengthening local capacities, expanding women’s economic opportunities and leadership, and supporting environmentally, socially, and economically sustainable development models in vulnerable coastal and marine areas.

SEDA as an NbS:

- At the project design phase, consultations were conducted in the target areas to engage local authorities, park representatives, communities, women's groups, youth, village leaders, environmental committees, and fisheries actors. The outcome of these consultations, coupled with the assessment of target sites, informed the identification of priority needs and potential areas for mangrove restoration, as well as capacity-building activities. Stakeholders expressed strong interest in improved natural resource management, livelihood diversification, sustainable alternatives, and more inclusive conservation governance. The consultations highlighted common challenges, including limited access to resources and markets, weak processing and preservation capacity, water scarcity, declining fish stocks, unsustainable fishing practices, isolation, low selling prices, youth outmigration, limited participation of women and youth in decision-making, and insufficient resources for park and state services (Criterion 1).
- As one intervention area in Casamance overlaps between the SEDAD and Natur'ELLES projects, several exchange sessions were held between the lead implementing partners of both projects to explore opportunities for cooperation, coordination, and knowledge exchange. These discussions included the possibility of sharing ongoing work on modern oyster farming, such as spat collection using cups, as well as exchanging relevant technical and cooperative expertise. Considering the significant needs in Lower Casamance, contact with the Directorate of Community Marine Protected Areas in Senegal – the national agency in charge of conserving marine biodiversity through community-led initiatives – was also facilitated to help identify opportunities to support other MPAs in the area, where needed (Criterion 2).
- A central component of SEDAD is continuous environmental education and skills development, starting at an early age and extending to targeted communities and resource users. This education emphasizes the role of ecosystems in sustaining livelihoods and strengthening climate resilience. Rather than relying only on new regulations, the project seeks to support behavioural change through better understanding of environmental issues, practical learning, and community-led alternatives. The education program is based on:

1. Improved knowledge among Indigenous Peoples, women, and local communities to develop and implement NbS for biodiversity conservation and restoration,
2. Strengthened scientific knowledge among researchers on the design and implementation of NbS in a climate adaptation context that is inclusive of vulnerable groups, and
3. Improved access for women, youth, and men to productive resources, technical skills, and context-specific adaptation solutions.



C
1



C
2

Regional and sub-regional exchanges on sustainable forest management raise awareness on the benefits of NbS, including biodiversity conservation, improved adaptation, and better living conditions. SEDAD also provides technical assistance to local authorities to assess and promote the ecological services of coastal ecosystems, including lesser-known ecosystems such as seagrass meadows, and to position communities for future access to green financing. This is particularly important to ensure that the value generated by local ecosystems benefits the communities that protect and manage them.

- The project used an iterative and participatory process to develop mangrove restoration and protection plans, involving continuous exchange among field teams, local communities, technical services, and relevant authorities. The process included a diagnostic phase to assess the biophysical and socioeconomic conditions of the target areas, followed by the development and validation of restoration and protection plans. Using satellite imagery, topographic maps, field observations, stakeholder surveys, and spatial analysis, the project identified areas of mangrove stability and loss, as well as the main drivers of degradation. These findings were then validated through community consultations. The analyses formed the basis for planned interventions, including mangrove restoration, measures to improve freshwater flows, livelihood diversification through horticulture, oyster farming, modern salt harvesting, salt-tolerant rice cultivation, and the development of alternative wood sources through reforestation. These actions are complemented by mangrove management strategies, strengthened institutional and community governance capacities, and awareness-raising activities to support long-term behavioural change and local ownership (Criterion 3).
- SEDAD strengthens participatory governance for climate change adaptation through building the leadership and capacities of women and Indigenous Peoples in governance bodies, strengthening local actors and civil society to promote inclusive and participatory natural resource management, and improving sub-regional exchanges on policies, tools, and approaches for sustainable biodiversity governance. The project recognizes that women and vulnerable groups are often excluded from decision-making due to limited access to education, resources, technical knowledge, and leadership opportunities. To address this, SEDAD provides training in literacy, financial management, communication, ecosystem management, biodiversity conservation, and restoration. These activities aim to strengthen women's confidence, technical expertise, and ability to participate meaningfully in governance processes. Community-wide awareness activities, including workshops, radio programs, theatre, and the work of climate ambassadors, will also promote broader understanding of the importance of inclusive natural resource management.
- The project also supports the creation of inclusive governance mechanisms, including technical working committees involving state actors, civil society, local management bodies, and vulnerable groups. Training and technical support will be provided to improve biodiversity monitoring, protected area management, and the integration of



C
3



C
5

human activities into sustainable management systems. By strengthening the capacities of all stakeholders simultaneously, the project seeks to place women, youth, and Indigenous Peoples on a more equal footing in decision-making. Overall, SEDAD aims to show that inclusive governance is not only a matter of right, but also an essential condition for effective climate adaptation, biodiversity conservation, and sustainable local development. In addition, the regional studies on indigenous knowledge will contribute to ensuring that such knowledge is better integrated into the design, implementation, and monitoring of Nature-based Solutions (Criterion 5).

- The project developed an advocacy strategy aimed at integrating NbS into conservation strategies and environmental policies in Mauritania, Senegal, The Gambia. This advocacy serves as a strategic regional tool to support the scaling up of NbS (Criterion 8).



C
8



Photo: Nicolas Mbengue

On-Air for Gender-Inclusive Nature-based Solutions Farm Radio International



LOCATION

Ottawa, Ontario



Photo : Tara Sprickeroff

Farm Radio International (FRI) is a Canadian non-profit organisation founded in 1979 and headquartered in Ottawa, with regional offices across Africa. FRI is dedicated to serving smallholder farmers and rural communities across sub-Saharan Africa by leveraging the widespread accessibility of radio combined with mobile technology. Radio is accessible to over 70% of African farmers, compared to less than 40% with internet access. Its work focuses on providing actionable information regarding sustainable farming practices, food security, climate adaptation, gender equality, and public health, directly empowering tens of millions of rural listeners to improve their livelihoods and strengthen their communities.

FRI works with a network of 1,485 radio stations in 38 countries, to produce interactive programming, share agricultural scripts, and offer training resources, reaching more than 700 communities and a potential audience of over 100 million people.



Photo : Tara Sprickeroff

“On-Air for Gender-Inclusive Nature-based Solutions” is a five-year project funded by Global Affairs Canada. This unique project uses communication methodologies to scale out nature-based solutions across households and communities in various ecosystem, with an aim to increase resilience to climate change. In partnership with communities and the Partnering for Climate portfolio, the project works with 25 local radio stations in six sub-Saharan African countries (Burkina Faso, Cote d’Ivoire, Ghana, Ethiopia, Uganda and Zambia) to produce more than 200 radio documentaries and campaign series that showcase local knowledge and practices that have long supported livelihoods and climate resilience. These interactive documentaries and campaigns are designed to inspire and support communities facing climate risks in adopting practical NbS actions, particularly in areas such as soil health, deforestation, land degradation, droughts, and water scarcity, while also strengthening overall farming practices. Salient outcomes from the documentary programming will be used to produce radio scripts to deliver NbS programming more broadly with 200 stations across 20 countries in sub-Saharan Africa. Furthermore, in collaboration with the Carleton School of Journalism, rural NbS stories will be used to create podcasts to engage and educate Canadians about NbS, adaptation, and Canada’s role in advancing global climate targets.

In addition, the project uses On-Air Dialogues, a radio programming format that integrates call-ins and polls, allowing rural audiences to participate and share opinions, experiences, and perspectives on crucial climate change adaptation issues. These dialogues are intended to amplify the voices of rural women, men, youth, and vulnerable groups to inform and influence climate policy processes.

By creating pathways for local communication and knowledge sharing of local NbS stories and facilitating dialogues, FRI contributes to transformative action in sustainable resource management and supports efforts to strengthen gender-responsive NbS and climate policy frameworks.

This project aims to reach a combined audience of eight million rural people over its duration, influence 24 policy strategies or initiatives and increase Canadian support for inclusive NbS for adaptation by 12% amongst podcast audiences.

Annex

This annex presents the tools and resources used in the design and assessment of the case studies included in this report, together with the relevant Criteria to which they relate. For each resource, the annex outlines its function in supporting NbS activities and identifies the corresponding Criteria and Indicators.

It should be noted that the Criteria of the IUCN Global Standard for Nature-based Solutions are interlinked, and many of the tools and resources listed in this annex may support more than one Criterion or Indicator. For clarity, each resource has been linked to the Criterion and Indicator considered most relevant.

TOOL / RESOURCE	FUNCTION	PRIMARY CRITERION/ CRITERIA
Biodiversity baseline survey	A biodiversity baseline survey is conducted at the start of a project to document existing species, habitats, and ecological conditions within the intervention area. This study provides the reference point needed to evaluate how the project affects biodiversity, ecosystem health, and ecological integrity over time.	C3 - C7
Communication and Dissemination Strategy	A communication and dissemination strategy is a document that defines how project information, results, and lessons learned will be shared with relevant audiences through appropriate channels and formats. It helps demonstrate how knowledge, evidence, and project outcomes are communicated to stakeholders, decision-makers, and broader audiences to support awareness, learning, uptake, and replication.	C5 - C8
Community-based Risk Screening Tool - Adaptation and Livelihoods (CRiSTAL)	a screening tool designed to help project designers and managers integrate climate change adaptation and risk reduction into community-level projects. It provides a structured process for analyzing climate-related risks, livelihoods, and vulnerable resources, and for identifying how project activities can better support local resilience.	C2
Cost-effectiveness and cost-benefit assessments	Conducting this study to understand the economic aspects of NbS, identifying and documenting all the types of benefits provided (financial and non-financial; economic and non-economic), who receives them, what the costs of provision are, and who bears those costs. This study will also be used as basis for identifying trade-offs and establishing appropriate safeguards.	C4 - C7
Cross-project coordination meeting minutes	Records of meetings held to coordinate activities, decisions, and joint problem-solving across related projects. In the context of NbS design and implementation, when other development or conservation projects are being planned or implemented within the same ecosystem, such exchanges of information are important for identifying synergies, avoiding duplication, and recognizing potential risks or trade-offs between the main project and other interventions in the same landscape.	C2 - C6
Environmental Action Plan	A plan that sets out the actions required to manage environmental impacts and improve environmental outcomes during project implementation. It supports NbS assessments by showing how environmental commitments are translated into concrete measures and follow-up actions.	C2 - C3
Environmental Analysis and Management Plan	An environmental analysis and management plan is a document that identifies potential environmental conditions, risks, and impacts associated with a project, and sets out the measures required to avoid, reduce, monitor, and manage them.	C2 - C3 - C7

TOOL / RESOURCE	FUNCTION	PRIMARY CRITERION/ CRITERIA
Environmental Screening	Environmental screening is a preliminary process used to identify the potential environmental risks, impacts, and sensitivities associated with a project. It supports NbS assessments by ensuring that important environmental issues are recognized early and addressed appropriately.	C1 - C2 - C3
Ex-Post Evaluation Toolkit for Adaptation	An ex-post evaluation toolkit for adaptation is a guidance resource used to assess the results and longer-term effects of climate adaptation interventions after implementation. It helps practitioners review outcomes, understand what worked and why, and generate evidence for learning, accountability, and future programming	C7
Gender-Based Analysis Plus	is an analytical approach that examines how different groups of people - particularly based on gender, but also intersecting with factors like age, ethnicity, income, disability, and cultural background - experience policies, programs, or initiatives differently	C1- C2 - C5 -C6
Global Mangrove Watch	An online platform that provides data and tools for mapping and monitoring mangrove ecosystems. It offerz spatial information on mangrove extent and change that can help inform baseline analysis, monitoring, and evaluation.	C3
Google Earth Engine Mangrove Mapping Methodology	A remote-sensing approach and toolset for mapping and monitoring mangrove ecosystems using satellite imagery in Google Earth Engine. It provides spatial data on mangrove extent and change that can inform baseline conditions, monitoring, and evaluation.	C3
Indigenous and Community Heritage Areas	A mapping process used to identify areas of cultural and heritage importance to Indigenous Peoples and local communities. It supports NbS assessments by helping ensure that these important places are recognized, respected, and considered in project planning and implementation.	C2 - C3 - C5 - C6
IUCN's Restoration Opportunities Assessment Methodology (ROAM)	ROAM is an assessment methodology that helps identify, analyze, and prioritize restoration opportunities at national or sub-national levels. It supports decision-making by combining spatial, ecological, social, economic, and governance considerations to determine where restoration is feasible and what forms it should take.	C1 - C3
Market Report	A market report is a document that analyzes market conditions, trends, opportunities, and constraints relevant to a project, product, or intervention. In the context of NbS projects, it can help demonstrate the economic context in which the project operates, including demand, value chains, financing opportunities, and factors that may influence the viability and scalability of NbS activities.	C4
Multi-Criteria Analysis	Multi-Criteria Analysis is a decision-support tool used to compare different options against a set of defined criteria, which may include environmental, social, economic, technical, and governance factors. It can help evaluate alternative interventions or sites in a structured and transparent way, supporting decision-making where multiple risks, objectives and trade-offs need to be considered.	C2 - C3
National/regional Climate Change Adaptation Plan	A policy document that outlines climate risks, adaptation priorities, and planned strategic actions at the national or regional scale. It helps assess whether an NbS project is aligned with broader adaptation strategies and policy objectives.	C1 - C2 - C8
NbS Strategy	Developing an NbS Strategy that outlines the links between the problems, the actions to address these problems and intended outcomes of each action.	C1 - C3 - C5

TOOL / RESOURCE	FUNCTION	PRIMARY CRITERION/ CRITERIA
Participatory Capacity and Vulnerability Analysis	Participatory Capacity and Vulnerability Analysis is a community-based risk analysis process used to identify local vulnerabilities, existing capacities, and priority actions related to disaster and climate change risks. In the context of IUCN NbS assessments, it helps bring community knowledge into the assessment process, strengthen understanding of local resilience and adaptation needs, and inform the design of responses that are context-specific, inclusive, and grounded in local realities	C2
Project implementation plan	A project implementation plan is a document that sets out the activities, timelines, responsibilities, and resources required to carry out a project effectively. It helps demonstrate how planned actions are organized and managed, and how implementation is structured to achieve intended outcomes in a coordinated and accountable manner.	C1 - C5 - C7
Project Measurement Framework/Monitoring and Evaluation Plan	A robust monitoring and evaluation plan designed based on the NbS strategy provides the necessary information for measuring progress and identifying any emerging risks and opportunities during and after the project implementation. This monitoring and evaluation system is designed for the project's life cycle and should be accompanied by a learning system that can guide corrective actions where necessary.	C1- C2 - C3 -C7
Rapid Landscape Assessment	a method for quickly evaluating the ecological or environmental condition of a landscape	C1 - C3
Remote sensing	Using GIS and other tools to understand the ecosystem and systematically track land-cover and vegetation changes in the targeted region, generating high-resolution baseline and endline datasets, as well as how the ecosystem elements interact with each other.	C2 - C3
Risk Assessment Matrix	The IUCN NbS Standard intends to support the long-term sustainability of the interventions by establishing mechanisms that could minimise risk and maximise impact. Therefore, a risk assessment study is necessary to identify potential internal and external risks and their drivers. The NbS approach is promoting a system-based instead of a site-based approach, so the risk assessment should encompass the risks that are posed to the intervention, as well as the risks that the intervention could pose to the social and economic constructs and ecosystems.	C2 - C7
Risk Management Matrix	A tool used to identify and evaluate potential project risks and define measures to address them. It supports NbS assessments by showing how uncertainties and threats are considered and managed throughout project implementation.	C2 - C7
Site Suitability Assessment	Site Suitability Assessments are analyses carried out to determine whether a particular location is appropriate for a proposed intervention based on its legal, environmental, social, technical, and economic conditions. It is used to determine if the proposed site is viable, and legally permitted for a proposed business plan. In the context of NbS design and assessment, this study supports the evaluation of the economic feasibility of NbS projects.	C4
Social baseline survey	A survey undertaken at the beginning of a project to capture existing social conditions and community perspectives before implementation. It supports NbS assessments by providing the baseline information needed to track social outcomes and impacts over time.	C1 - C6 - C7

TOOL / RESOURCE	FUNCTION	PRIMARY CRITERION/ CRITERIA
Socio-economic Productive Landscapes Study (SEPL)	SEPL is a participatory assessment used to evaluate landscape resilience across ecological, social, and governance dimensions. It engages diverse stakeholder groups in scoring a set of resilience indicators based on both their current status and perceived trends over time	C1 - C2
Stakeholder Engagement Plan	A document that outlines how relevant individuals, groups, and institutions (identified during the stakeholder mapping step) will be informed, consulted, and involved throughout a project. It helps demonstrate how participation is organized to ensure inclusive decision-making, transparency, collaboration, and responsiveness to stakeholder needs and perspectives.	C1 - C5 - C6
Stakeholder Mapping	A tool used to identify and analyze the stakeholders relevant to a project, including their interests, influence, and roles. It supports NbS assessments by helping ensure that engagement and governance processes are inclusive and well informed.	C1 - C5 - C6
Supply Chain Report	A supply chain report is a document that describes the sources, flow, and management of goods, materials, and services involved in a project. In the context of IUCN NbS assessments, it helps demonstrate how procurement and delivery processes are organized, and whether they align with environmental, social, ethical, and sustainability considerations relevant to the project.	C4
SWOT Analysis	A SWOT analysis is a strategic planning tool used to identify a project's internal strengths and weaknesses, as well as external opportunities and threats. It can help examine the factors that may support or constrain project design, implementation, performance, and long-term sustainability.	C2 - C7
Theory of Change	A theory of change is a conceptual framework that explains how and why a project's activities are expected to lead to desired outputs, outcomes, and longer-term impacts. It helps clarify the logical pathways through which NbS project actions are intended to generate environmental, social, and climate-related benefits, while making underlying assumptions explicit.	C1 - C3 - C4
Utility-Focused Evaluation	Utility-focused evaluation is an approach that designs and conducts evaluation around the intended use of findings and the needs of the primary users. It supports NbS implementation and assessments by ensuring that evidence generated through the assessment can meaningfully inform project learning, management, and future action.	C7
Utility-Focused Evaluations	Utility-focused evaluations are evaluations designed and conducted to ensure that findings are directly useful to the intended users, particularly for decision-making, learning, and improvement.	C7

GROWING RESILIENCE

Nature-based Solutions
for Adaptation

Eleven case studies from Canada's
Partnering for Climate Portfolio

