

Nature-Based Solutions for Adaptation in Uganda

An inventory of projects using nature-based solutions for adaptation to address climate and biodiversity challenges (2015–2026)

June 2026

Executive Summary

This inventory compiles nature-based solutions (NbS) for adaptation implemented in Uganda since 2015. It includes standalone projects and clearly defined implementation units within broader programs, provided the adaptation logic, ecosystem focus, geographic footprint, and reference trail are traceable. It excludes pipeline interventions and initiatives in which ecosystems are secondary or incidental to other objectives.

The inventory shows that Uganda's NbS for adaptation are not dominated by a single ecosystem. Instead, they are distributed across wetlands and associated catchments, protected areas and forest landscapes, mountain ecosystems, peatlands, river systems, savannah parklands, and restoration mosaics, spanning both rural agricultural landscapes and ecologically sensitive conservation areas.

Across the inventory, the strongest concentration of interventions focuses on wetland and catchment restoration, forest and protected area management, and landscape restoration, and are mainly linked to water security and livelihood resilience. The inventory also shows that the interventions are rarely a single activity, such as tree planting. The dominant pattern is an integrated package of ecosystem restoration and management, including the rehabilitation of degraded ecosystems, the protection of buffer zones and riverbanks, catchment restoration, community engagement, alternative livelihoods, and climate-resilient land management. In some cases, these on-the-ground measures are complemented by policy mainstreaming or institutional strengthening, although ecosystems remain the primary mechanism through which resilience benefits are delivered.

The inventory also confirms that the societal challenges addressed by Uganda's NbS projects are coupled rather than treated as separate. Food insecurity, water stress, livelihood instability,



exposure to floods and droughts, declining agricultural production, degradation of ecosystem services, and pressure on biodiversity repeatedly appear together in the evidence base. This supports a systems reading of NbS in Uganda as measures that stabilize hydrology, reduce disaster risk, protect productive landscapes, and sustain local economies whose resilience depends on ecosystem function.

From a biodiversity perspective, the inventory shows that most NbS in Uganda are not designed around species-specific conservation. Their biodiversity value lies primarily in reducing habitat degradation, wetland encroachment, riverbank erosion, forest loss, invasive species pressure, catchment decline, and the weakening of ecological integrity in high-value landscapes such as Mount Elgon, the Greater Virunga Landscape, and the Awoja, Mpanga and Mpologoma wetlands. Biodiversity outcomes in Uganda's NbS for adaptation portfolio, therefore, are mostly achieved through improved ecosystem conditions and reduced pressure on natural systems rather than through wildlife-framed targets.

Social inclusion is visible but uneven across the portfolio. Some projects provide explicit evidence of gender-responsive design, women's participation, targeted livelihood benefits, or focus on marginalized groups, including refugee-hosting communities, women, youth, wetland-dependent households, and vulnerable mountain communities. Other projects have weaker public documentation on inclusion, even where inclusion is likely part of implementation practice. The inventory therefore distinguishes between explicit evidence and presumed intent rather than inflating the inclusion record beyond what public sources or consultations, where possible, support.

The evidence base is strongest for projects backed by major donor approvals, formal funding proposals, government program pages, terminal evaluations, or multi-year implementation reporting. It is weaker for some implementation units where reporting remains at the level of launch notes and implementation updates. This highlights where Uganda's NbS landscape is already evidenced, and where stronger reporting, consolidated results, or clearer articulation of adaptation logic would materially improve the national picture.

Taken together, the inventory indicates that Uganda already has a substantial NbS for adaptation practice base that can support adaptation planning, resource mobilization, policy mainstreaming, and future programming. The strongest scaling opportunities lie in replicating integrated models that combine ecosystem restoration, local institutions, risk reduction, and livelihood support under landscape-specific conditions. For that reason, the inventory can be read as both an evidence product and a programming tool: it identifies what is already being done, what ecosystems and risks are being addressed, and where the country has credible foundations for scaling up NbS for adaptation as part of climate adaptation and resilience building.



Context and Purpose

Introduction

Purpose of the Inventory

Uganda is experiencing increasing climate variability alongside ongoing ecosystem degradation and biodiversity loss. Changes in rainfall patterns, rising temperatures, and more frequent extreme events such as floods, droughts, and landslides are interacting with degraded wetlands, declining forest cover, and stressed catchment systems to intensify vulnerability across both rural and peri-urban areas (World Bank, 2021, 2025; Ministry of Water and Environment [MWE], 2025).

These interacting pressures place particular stress on water security, climate-sensitive agricultural systems, and exposure to climate-related disasters, reinforcing the case for adaptation measures that restore and strengthen ecosystem function (MWE, 2022; World Bank, 2025)

This inventory has been developed to identify and analyze nature-based solutions (NbS) for adaptation implemented in Uganda since 2015. Its purpose is not only to compile a list of projects, but also to establish how ecosystem-based interventions are applied in practice to reduce climate vulnerability, strengthen resilience, and provide a structured basis for comparing them across landscapes, ecosystems, and risk contexts. The inventory documents the approaches taken by each intervention, the climate and biodiversity risk they address, the ecosystems they target, and the beneficiaries they are intended to serve.

Who Is the NbS Inventory For?

The inventory provides a resource for government agencies, implementing partners, conservation and adaptation practitioners, researchers, and donors seeking to understand the current landscape of NbS for adaptation implementation in Uganda. It is also intended to support improved coordination by identifying gaps, overlaps, and opportunities for synergy or scaling across interventions.

This inventory has been developed under the Climate Adaptation and Protected Areas Initiative, led by the International Institute for Sustainable Development and implemented in Uganda by the Worldwide Fund for Nature (WWF), with financial support from Global Affairs Canada. It is designed as a living analytical resource that can be updated as new NbS for adaptation interventions emerge and as the evidence base evolves.

Scope and Coverage

The inventory covers interventions implemented in Uganda from 2015 onward that use ecosystem processes, ecosystem restoration, ecosystem management, or sustainable ecosystem use to reduce climate vulnerability and enhance resilience. It includes both government-led and partner-led initiatives.

Importantly, the unit of analysis is not restricted to standalone projects. The inventory also includes discrete NbS for adaptation implementation units within broader programs where



those units can be clearly defined in terms of geography, intervention type, and adaptation rationale. This reflects the reality that ecosystem-based adaptation in Uganda is often delivered through larger watershed, protected area, or landscape programs rather than through isolated project structures.

Why NbS for Adaptation Matter—Especially for Uganda

NbS for adaptation are particularly relevant in Uganda because the country's economy and livelihoods remain closely tied to its ecosystem condition. Evidence cited by the United Nations Environment Programme (UNEP) indicates that forests contribute approximately 6% of Uganda's gross domestic product, while wetland-related ecosystem services provide an estimated average of USD 432 per year to Ugandan households (UNEP, 2023). These figures underscore the extent to which economic activity, household income, and well-being depend on functioning natural systems. This dependence is particularly evident in agriculture, which remains predominantly rain-fed and therefore highly sensitive to climate variability.

Uganda's 2025 national climate report indicates that most rural households depend on rain-fed agriculture and that the sector is increasingly exposed to erratic rainfall, prolonged dry periods, and more frequent extreme weather events (MWE, 2022; World Bank, 2025). Given that agriculture is both a livelihood and a key component of Uganda's national economy, climate-related disruption can quickly translate into broader economic and social risk.

Ecosystem degradation intensifies these risks by weakening the natural functions that help buffer climate impacts. When wetlands are degraded or converted, their capacity to absorb runoff and retain sediment declines, weakening their water regulation functions (MWE, 2025; Intergovernmental Panel on Climate Change [IPCC], 2022). When forests are cleared or fragmented, hydrological regulation weakens as interception, uptake, and evapotranspiration processes are disrupted, while runoff increases and infiltration declines (IPCC, 2021; FAO, 2025). When catchments are poorly managed, sedimentation increases, intensifying downstream flood and drought risks (IPCC, 2021; 2022). Together, these dynamics reinforce the case for adaptation measures that restore and strengthen ecosystem function (IPCC, 2022).

NbS for adaptation address these risks by working through the ecological systems that underpin resilience. In Uganda, this includes interventions such as wetland and forest restoration, catchment rehabilitation, agroforestry, and peatland conservation, which strengthen ecosystem functions linked to water regulation, soil stability, livelihood resilience, and biodiversity outcomes. Wetland restoration can help moderate flood impacts and sustain seasonal water functions, while forest and landscape restoration can reduce erosion and support local hydrological cycles. Peatland conservation is also important because peatlands regulate water and store carbon. Agroforestry systems can improve soil moisture retention, diversify income sources, and reduce pressure on natural ecosystems (MWE, 2025; UNEP, 2023).

A defining feature of NbS for adaptation is that they can address multiple challenges simultaneously. Properly designed interventions can contribute simultaneously to climate adaptation, biodiversity conservation, water security, and human well-being. This is particularly important in Uganda, where climate and biodiversity risks are closely linked and



where communities' degraded ecosystems reduce the country's resilience to climate shocks (United Nations Environment Assembly [UNEA], 2022; World Bank, 2025).

Conceptual Framework

This inventory adopts the definition of NbS agreed by the UNEA: “actions to protect, conserve, restore, sustainably use, and manage natural or modified terrestrial, freshwater, coastal, and marine ecosystems in ways that address social, economic, and environmental challenges while simultaneously providing human well-being, ecosystem services, resilience, and biodiversity benefits” (UNEA, 2024).

For the purposes of this inventory, that definition is operationalized through five criteria

1. The intervention must involve deliberate action to protect, conserve, restore, sustainably use, or manage ecosystems. This ensures that only interventions with a clear ecological component are included.
2. The ecosystems involved must be identifiable. In Uganda, these include wetlands, forests, catchments, mountain ecosystems, peatlands, protected area buffers, and agroforestry or tree-based production landscapes.
3. The intervention must address a defined societal challenge. This inventory focuses primarily on climate adaptation and resilience, while also recognizing linked challenges such as disaster risk reduction, water security, food security, and biodiversity loss, where the adaptation pathway is explicit.
4. There must be a credible mechanism linking ecosystem function to reduced vulnerability or increased resilience. This mechanism may involve hydrological regulation, soil stabilization, microclimate buffering, biodiversity-supported system resilience, or other ecosystem service pathways.
5. The intervention must demonstrate or plausibly contribute to co-benefits, including ecosystem services, biodiversity outcomes, and human well-being, as reflected in the UNEA definition.

Within this framework, ecosystem-based adaptation (EbA) is treated as a subset of NbS. The Convention on Biological Diversity (Secretariat of the Convention on Biological Diversity, 2009) defines EbA as the use of biodiversity and ecosystem services as part of an overall adaptation strategy to help people adapt to the adverse effects of climate change. In practical terms, this means that interventions included in this inventory are particularly strong where ecosystem management is not only environmentally beneficial but is explicitly or implicitly part of the adaptation strategy.

This conceptual framework is deliberately stricter than a general environmental project listing. It excludes projects where ecosystems are peripheral, incidental, or secondary to infrastructure, mitigation, or sectoral development objectives. The intent is to ensure that the inventory captures interventions in which ecosystems are central to achieving adaptation outcomes.



Methodology

This inventory was developed through a structured review and verification process based on project-level evidence from named institutional sources. The initial pool of candidate interventions was identified through a broad search across project and program materials produced by the Government of Uganda, UNEP, the United Nations Development Programme (UNDP), the Green Climate Fund (GCF), the Global Environmental Facility (GEF), the Adaptation Fund, and implementing organizations, including the WWF, the International Institute for Sustainable Development, Botanic Gardens Conservation International, and Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH.

Each candidate intervention was assessed against the conceptual framework described above. An intervention was included where there was sufficient evidence that it involved ecosystem-based action in Uganda, that it addressed climate adaptation or a closely related societal challenge, and that ecosystems were a primary mechanism through which resilience benefits were delivered.

The inventory includes both standalone projects and discrete implementation units within broader programs. The inclusion of implementation units reflects the way NbS are delivered in practice in Uganda, where ecosystem-based interventions are often embedded within larger watershed, protected area, or landscape programs. However, such units were included only where they could be clearly defined in terms of geography, intervention type, and adaptation logic, and where their inclusion did not result in duplication with a broader project already represented in the inventory.

The inventory excludes proposal-stage or pipeline interventions that are not yet being implemented. It also excludes projects where ecosystems are secondary to infrastructure or sectoral development objectives, policy, or capacity-building initiatives without identifiable on-the-ground ecosystem interventions and subcomponents that would result in double counting.

Primary sources used for verification include project fact sheets, funding approval documents, program descriptions, and implementing agency materials. Additional verification was done directly with the responsible implementing entities where possible.

This approach ensures that the inventory is both comprehensive in its initial scope and disciplined in its final inclusion, balancing the need to capture the breadth of NbS for adaptation implementation in Uganda with the need to maintain analytical rigour.

Overview of NbS in Uganda

Typology of NbS in Uganda

The portfolio of NbS for adaptation in Uganda clusters into a small number of dominant intervention types that reflect both the country's ecological structure and its climate risk profile. Across the inventory, four primary typologies emerge.

The first, and most prominent, is wetland and catchment restoration. These interventions are concentrated in landscapes where hydrological regulation is central to resilience, particularly



in areas exposed to recurrent flooding or seasonal water stress. Projects under this typology focus on restoring degraded wetlands, re-establishing vegetative cover along riverbanks, improving catchment management practices, and reducing encroachment. The adaptation logic here is that directly restoring wetland and catchment functions improves water retention, reduces peak flood flows, and stabilizes water availability during dry periods.

The second typology is forest and landscape restoration, including both natural forest regeneration and assisted restoration using native species. These interventions are often implemented in degraded forest landscapes, protected area buffers, or production landscapes. Their contribution to adaptation lies in stabilizing soils, reducing erosion, improving infiltration and groundwater recharge, and maintaining ecological processes that support climate resilience.

A third category consists of protected area and buffer-zone management interventions. These are particularly visible in landscapes such as the Greater Virunga and Rwenzori regions. They focus on maintaining ecosystem integrity within protected areas while reducing pressure in surrounding buffer zones through restoration, alternative livelihoods, and improved land-use practices. The adaptation pathway is both ecological and socio-economic—maintaining intact ecosystems reduces exposure to climate risks, while reducing pressure on those systems improves their long-term resilience.

The fourth typology is agroforestry and tree-based production systems. These interventions integrate trees into agricultural landscapes to improve soil fertility, enhance water retention, reduce erosion, and diversify livelihoods. In Uganda's predominantly rain-fed agricultural system, these interventions play a critical role in buffering production systems against climate variability.

While these typologies are analytically distinct, in practice, many projects combine elements from more than one category. For example, a catchment restoration project may include wetland restoration, agroforestry, and livelihood components. The typology is therefore best understood as a way of organizing dominant intervention logic rather than rigid categories.

Geographic and Ecosystem Coverage

The geographic distribution of NbS for adaptation interventions in Uganda reflects both ecological priorities and patterns of climate vulnerability. The inventory shows a strong concentration of interventions in several key landscapes.

The Greater Virunga Landscape in southwestern Uganda is a major focal area, with multiple interventions linked to mountain ecosystems, protected area management, forest restoration, catchment management, and community-based adaptation. This reflects both the ecological importance of the landscape and the intensity of pressures associated with population density and land use, as well as the region's exposure to landslides, flooding, and ecosystem degradation.

In eastern Uganda, the Mount Elgon region stands out as a site of EbA interventions focused on slope stabilization, agroforestry, and catchment management. Similarly, the Kyoga Water



Management Zone, including catchments such as Mpologoma and Mpanga, has seen substantial investment in wetland and catchment restoration.

Northern Uganda is emerging as an area of NbS for adaptation implementation, particularly through landscape-level initiatives focused on agroforestry systems such as shea parklands and on ecosystem restoration in refugee-hosting areas.

Across these landscapes, the ecosystems most frequently targeted are wetlands, forest systems, catchments, mountain ecosystems, and agroforestry landscapes. These ecosystems are not only ecologically significant, they are also central to the delivery of ecosystem services that underpin resilience, including water regulation, soil stabilization, and livelihood support.

The distribution of interventions is, however, uneven. Dryland systems, urban ecosystems, and some northern and northeastern regions remain comparatively underrepresented. This suggests potential gaps in the current NbS for adaptation portfolio that may warrant further attention.

Climate and Biodiversity Risks Addressed

The NbS interventions captured in this inventory respond to a set of recurring and interlinked risks. The most prominent climate risk addressed is flooding, particularly in low-lying areas and degraded catchments. Wetland restoration and catchment management interventions are explicitly designed to reduce flood peaks and improve water flow regulation.

Drought and water scarcity represent another major risk, especially in areas dependent on rain-fed agriculture. Interventions such as agroforestry, forest restoration, and catchment management contribute to improved water retention, groundwater recharge, and soil moisture conservation.
















Landslides and soil erosion are particularly significant in mountain and highland areas such as Mount Elgon and the Rwenzori region. NbS for adaptation interventions in these areas focus on stabilizing slopes through vegetation restoration and improved land-use practices.

In addition to climate risks, the interventions also address biodiversity-related risks, including habitat degradation, fragmentation, and loss of ecosystem functionality. Importantly, these biodiversity risks are not treated separately from climate risks. Instead, they are addressed as part of integrated interventions where restoring ecosystem integrity simultaneously supports climate resilience.
















The inventory therefore reflects a pattern of integrated risk response, where NbS for adaptation interventions are designed to address multiple, interconnected challenges rather than single-sector problems.



Inventory of NbS for Adaptation in Uganda

1 Reducing Climate Change Vulnerability of Local Communities in Uganda through Ecosystem-Based Adaptation in Wetland and Forest Ecosystems													
Implementation entity	UNEP, with the MWE as the government counterpart												
Funding source	GEF Least Developed Countries Fund (GEF-LDCF) with co-financing from UNEP and the Government of Uganda.												
Implementation period	2020–2025												
Project status	Completed												
Geographic area (region/district/catchment)	<ul style="list-style-type: none"> • River Enyau System – Arua City • River Sironko System – Sironko; Bulambuli • River Rwambu – Mpanga System – Ibanda, Kitagwenda, and Kamwenge Districts • River Rwizi – Nakivale System – Mbarara City 												
Intended beneficiaries	The project targets local communities living around the four targeted wetland and forest ecosystems. It is designed to reduce the vulnerability of dependent communities and strengthen the capacity of government and communities to implement EbA.												
Social inclusion focus (if any)	<input type="radio"/> Women <input type="radio"/> Youth <input type="radio"/> Vulnerable groups <p>Public fact sheets do not provide a sufficiently detailed standalone gender equality and social inclusion (GESI) outline to support a stronger claim. The project is community facing and livelihood oriented, but the publicly available evidence does not justify a more specific GESI statement.</p>												
Societal challenges addressed by NbS	<p>The project addresses climate vulnerability among ecosystem-dependent communities, including</p> <table border="1"> <tbody> <tr> <td></td> <td>Degraded natural-resource bases</td> <td></td> <td>Disaster risk reduction</td> </tr> <tr> <td></td> <td>Climate adaptation</td> <td></td> <td>Water security</td> </tr> <tr> <td></td> <td>Livelihood insecurity</td> <td></td> <td></td> </tr> </tbody> </table>		Degraded natural-resource bases		Disaster risk reduction		Climate adaptation		Water security		Livelihood insecurity		
	Degraded natural-resource bases		Disaster risk reduction										
	Climate adaptation		Water security										
	Livelihood insecurity												
Ecosystem(s) targeted	Wetlands and forests												
Ecosystem services enhanced	<ul style="list-style-type: none"> • Water regulation • Soil stabilization • Flood attenuation • Livelihood support 												








<p>Description of Nbs</p>	<p>The project was designed to reduce the vulnerability of communities living around wetlands and forests to climate change. Its specific objective is to increase the technical and institutional capacity of government authorities and local communities to implement EbA in wetland and forest ecosystems and reduce the vulnerability of dependent communities to the observed and anticipated impacts of climate change.</p> <p>The project combines restoration and management of wetland and forest ecosystems with integration into management plans, alternative livelihoods, and climate-smart agriculture so that healthy ecosystems carry more of the adaptation burden for vulnerable communities.</p>										
<p>Risks addressed</p>	<table border="1"> <tr> <td colspan="2" data-bbox="528 723 1398 779">Climate risks</td> </tr> <tr> <td data-bbox="528 779 963 842">  Flooding </td> <td data-bbox="963 779 1398 842">  Drought </td> </tr> <tr> <td colspan="2" data-bbox="528 842 1398 904">  Microclimate regulation </td> </tr> <tr> <td colspan="2" data-bbox="528 904 1398 960">Biodiversity risks</td> </tr> <tr> <td data-bbox="528 960 963 1055">  Habitat degradation </td> <td data-bbox="963 960 1398 1055">  Habitat loss (wetland and forest ecosystems) </td> </tr> </table>	Climate risks		 Flooding	 Drought	 Microclimate regulation		Biodiversity risks		 Habitat degradation	 Habitat loss (wetland and forest ecosystems)
Climate risks											
 Flooding	 Drought										
 Microclimate regulation											
Biodiversity risks											
 Habitat degradation	 Habitat loss (wetland and forest ecosystems)										
<p>Key results achieved or expected (ecosystem/ livelihood/resilience outcome)</p>	<p>The project contributed to improved ecological conditions of wetlands and forests, enhanced water retention and regulation functions, and reduced exposure to flood and drought risks. At the livelihood level, the project contributed to strengthening community capacity to implement ecosystem-based practices and improved resilience to climate variability (MWE Project documentation).</p>										



<p>Potential for scaling or replication</p>	<p> <input checked="" type="radio"/> High <input type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> Unknown </p> <p>The project demonstrates strong potential for scaling in wetland, forest, and catchment landscapes where ecosystem degradation, livelihood dependence, and climate vulnerability are closely linked. Its combination of ecosystem restoration, EbA capacity-building, integrating into management plans, alternative livelihoods, and climate-smart agriculture provides a transferable model for supporting adaptation planning and adaptive management in ecosystem-dependent communities.</p> <p>Replication is most feasible where local government structures, community engagement mechanisms, and institutional mandates for wetland and forest management are already in place, and where financing can support restoration, capacity-building, and livelihood transitions.</p> <p>However, scaling may be constrained by the need for sustained post-project financing, continued technical support, enforcement of wetland and forest protection measures, and viable livelihood alternatives that reduce pressure on restored ecosystems.</p>
<p>References</p>	<ul style="list-style-type: none"> • UNEP project page https://www.unep.org/gef/projects/reducing-climate-change-vulnerability-local-communities-uganda-through-eba-forest-and • Global Environment Facility (GEF) project database https://www.thegef.org/projects-operations/projects/8035 • Ministry of Water and Environment project documentation https://www.mwe.go.ug/projects/EbA • UNEP project fact sheet https://wedocs.unep.org/items/9d913733-2321-463e-82b3-ae384f2cad89



2 Climate Adaptation and Protected Areas (CAPA) Initiative	
Implementation entity	The International Institute for Sustainable Development (IISD) in Partnership with the WWF Uganda
Funding source	Global Affairs Canada
Implementation period	2023–2026
Project status	Ongoing
Geographic area (region/district/catchment)	The Greater Virunga Landscape <ul style="list-style-type: none"> • Rwenzori Mountains National Park • Queen Elizabeth National Park • Bwindi Impenetrable National Park
Intended beneficiaries	Communities living in and around protected areas, especially women and underrepresented groups, as well as protected area management actors
Social inclusion focus (if any)	<p>✔ Women ✔ Youth ✔ Vulnerable groups</p> <p>GESI integration is a core component of the CAPA Initiative and is addressed across four distinct pathways:</p> <ol style="list-style-type: none"> Mainstreaming GESI – The initiative integrates GESI-responsive actions into all project activities, from design to implementation. Empowering women and youth – CAPA focuses on breaking down barriers to resources, land, and financial support for women and youth in sub-Saharan Africa, Belize, and Fiji. Conflict-sensitive approaches – Solutions are designed to be conflict sensitive, particularly in areas surrounding protected landscapes like the Greater Virunga and Kavango-Zambezi regions. Underrepresented groups – Assessments identify specific marginalized groups, such as the Batwa in Uganda, to ensure they are included in decision making and project leadership.
Societal challenges addressed by NbS	 Livelihood resilience  Disaster risk reduction
	 Climate adaptation  Water security
	 Ecosystem degradation linked to community vulnerability
Ecosystem(s) targeted	Savannah ecosystems, forests, and agricultural landscapes



<p>Ecosystem services enhanced</p>	<ul style="list-style-type: none"> • Slope stabilization • Erosion control • Watershed function • Habitat quality • Access to forage and water for wildlife • Ecological connectivity within the park • Flood mitigation • Riverbank stability • Reduced sediment loss • Water regulation 								
<p>Description of NbS</p>	<p>The project applies a portfolio of NbS across the Greater Virunga Landscape to restore ecological function, reduce climate risk, and strengthen resilience to climate change within and around protected areas. In the Rwenzori Mountains National Park, the project has supported reforestation of areas degraded by wildfire, helping restore vegetation cover, slope stability, and ecosystem recovery in a high-risk mountain landscape.</p> <p>Within the same landscape, in the Bwitho community and the surrounding areas, the project has also implemented flood mitigation interventions, including riverbank stabilization and slope stabilization measures, to reduce flood damage, erosion, and land degradation while strengthening the resilience of the adjacent communities. In Bwindi Impenetrable National Park and most prominently in Queen Elizabeth National Park, the project has removed invasive species, particularly <i>Dichrostachys cinerea</i>, from key sections of the park in order to restore habitat quality, reopen wildlife movement corridors, and improve access to grazing and watering areas.</p>								
<p>Risks addressed</p>	<p>Climate risks</p> <table border="1" data-bbox="528 1377 1388 1496"> <tr> <td data-bbox="528 1377 606 1433"></td> <td data-bbox="606 1377 957 1433">Flooding</td> <td data-bbox="957 1377 1037 1433"></td> <td data-bbox="1037 1377 1388 1433">Drought</td> </tr> <tr> <td data-bbox="528 1433 606 1496"></td> <td data-bbox="606 1433 957 1496">Microclimate regulation</td> <td data-bbox="957 1433 1037 1496"></td> <td data-bbox="1037 1433 1388 1496">Invasive species spread</td> </tr> </table> <p>The project addresses multiple climate-related risks affecting protected areas and adjacent communities in the Greater Virunga Landscape. These include wildfire-related land degradation in Rwenzori Mountains National Park, climate-exacerbated invasive species expansion in Queen Elizabeth National Park, and flooding, erosion, and slope instability in Bwitho and nearby areas.</p> <p>In Queen Elizabeth National Park, the spread of invasive thickets has reduced access to water and forage for wildlife, contributing to the increasing movement of animals outside the park and intensifying human-wildlife conflict. In Bwitho, flood mitigation interventions respond directly to recurrent flood risk and associated land degradation, helping reduce community exposure to climate-related hazards.</p>		Flooding		Drought		Microclimate regulation		Invasive species spread
	Flooding		Drought						
	Microclimate regulation		Invasive species spread						








	<p>Biodiversity risks</p>
	<p> Habitat degradation</p> <p> Habitat loss (wetland and forest ecosystems)</p>
	<p>The project addresses biodiversity risks arising from habitat degradation, reduced habitat quality, restricted wildlife movement, and declining ecological carrying capacity within protected areas. In Queen Elizabeth National Park, invasive species have blocked access to water points, reduced the availability of palatable grazing areas, and restricted the movement of both prey and predator species, weakening the park’s ecological integrity. In Rwenzori Mountains National Park, reforestation supports the recovery of protected habitat degraded by wildfire. In the wider landscape, interventions that stabilize riverbanks, slopes, and restored lands help protect ecological function and reduce further habitat degradation in areas of high biodiversity value.</p>
<p>Key results achieved or expected (ecosystem/livelihood/resilience outcome)</p>	<p>The project has already generated measurable results in the Greater Virunga Landscape. In Rwenzori Mountains National Park, it has reforested over 350 ha of land degraded by wildfires. In Queen Elizabeth National Park, it has cleared over 200 ha of invasive species to restore access to critical feeding grounds and watering points for wildlife. According to the implementation narrative, wildlife returned to some cleared sites almost immediately after restoration action, indicating rapid ecological response in heavily degraded areas. The project has also implemented significant flood mitigation interventions in Bwitho, including riverbank and slope stabilization measures, although the exact verified quantitative extent of those interventions should be inserted from the project records where available. In addition, the project has established GESI champions in each target community, providing a concrete result for the social inclusion dimension of the intervention.</p>



<p>Potential for scaling or replication</p>	<p> <input checked="" type="radio"/> High <input type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> Unknown </p> <p>The intervention demonstrates strong potential for scaling within protected area landscapes facing similar climate-driven degradation, particularly where invasive species expansion, wildfire damage, and flood risk are affecting ecosystem function and human–wildlife interactions.</p> <p>The combination of invasive species management, post-fire restoration, and targeted flood mitigation provides a transferable model for restoring ecological functionality under climate stress. Replication is most feasible in landscapes with similar governance structures (protected area authorities with management mandate), where community engagement mechanisms are already in place, and where financing can support labour-intensive restoration activities.</p> <p>However, scaling may be constrained by the high cost and sustained effort required for invasive species control at large spatial scales, as well as the need for continuous management to prevent re-encroachment.</p>
<p>References</p>	<ul style="list-style-type: none"> • The International Institute for Sustainable Development CAPA project microsite https://www.iisd.org/capa • The International Institute for Sustainable Development GVL landscape page https://www.iisd.org/capa/gvl • The International Institute for Sustainable Development CAPA project brief https://wwfafrica.awsassets.panda.org/downloads/capa-project-brief.pdf








3 Building Resilient Communities, Wetland Ecosystems, and Associated Catchments in Uganda (GCF FPO34)	
Implementation entity	MEW and the Ministry of Agriculture, Animal Industry and Fisheries; Uganda National Meteorology Authority, with UNDP as the accredited entity and delivery partner for the GCF Financing Package
Funding source	GCF grant
Implementation period	2017–2026
Project status	Ongoing
Geographic area (region/district/catchment)	The project operated in several southwestern districts—Kabale, Kisoro, Kanungu, Ntungamo, Bushenyi, Buhweju, Mitooma, Rubirizi, Sheema, Rukungiri, Rubanda, and Rukiga—and 12 eastern districts—Budaka, Pallisa, Ngora, Bukedea, Mbale, Kaliro, Namutumba, Kibuku, Butebo, Tororo, Butaleja, and Kumi.
Intended beneficiaries	The project targeted wetland-dependent communities whose livelihoods are tied to subsistence agriculture, fishing, and other uses of wetland resources. The approved proposal states that at least 800,000 people living in and around wetlands would directly benefit, while the wider projected area covered a population of about 3.95 million people.
Social inclusion focus (if any)	<p> <input checked="" type="checkbox"/> Women <input checked="" type="checkbox"/> Youth <input checked="" type="checkbox"/> Vulnerable groups </p> <p>GESI integration is explicit. Public GCF documentation includes a gender assessment and action plan, gender-disaggregated indicators, and gender-responsive design measures. The strongest claim supported by the public record is that gender responsiveness was structurally integrated into design, participation, and monitoring.</p>
Societal challenges addressed by NbS	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;">  Food security </div> <div style="text-align: center;">  Disaster risk reduction </div> </div>
	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;">  Livelihood insecurity linked to climate stress </div> <div style="text-align: center;">  Water stress </div> </div>
	 Exposure to climate shocks <p>The project addressed a compound risk set rather than a single environmental problem. Its public rationale links wetland degradation to declining food security, livelihood insecurity, water stress, reduced employment, and greater exposure of rural households to climate shocks. It was designed specifically for communities that depend heavily on wetlands and associated catchments for household food needs, income, domestic water, and local production systems.</p>



Ecosystem(s) targeted	<p>Wetland ecosystems and associated catchments.</p> <p>The intervention targeted degraded wetland ecosystems and their associated catchments in eastern and southwestern Uganda. In functional terms, this included riverine and valley-bottom wetland systems, hydrologically connected catchments, inlet streams, and adjacent land areas whose degradation was affecting wetland condition and water regulation.</p>
Ecosystem services enhanced	<p>The project was designed to restore and protect regulating and provisioning services generated by wetlands and catchments. Public reporting links restoration to:</p> <ul style="list-style-type: none"> • Groundwater replenishment • Flood control • Water provisioning • Moisture retention • Biomass production • Fishing productivity • Livelihood support for agriculture
Description of NbS	<p>This landscape-scale wetland and catchment restoration project used ecosystem repair as the core adaptation mechanism. The intervention combined wetland restoration, catchment rehabilitation, boundary demarcation, community engagement, sustainable land management, reforestation, trenches and gabions at water pour points, and shifts toward alternative livelihoods and climate-resilient agriculture so that damaging use pressure could be reduced rather than simply displaced. The functional logic was to rebuild wetland hydrology and associated catchment conditions, recover water storage and retention capacity, reduce erosion and unsustainable encroachment, and stabilize local production systems through a nature-based rather than infrastructure-led adaptation pathway.</p>







Risks addressed	Climate risks	
	 Flooding	 Drought
	 High temperatures	 Severe storms and related agricultural shocks
	<p>The project directly addressed increased climate variability and extreme weather events affecting wetland-dependent communities, including droughts, floods, high temperatures, violent storms, and related agricultural shocks. Its climate-information component also specifically tracked access to drought, flood, and severe-storm warnings.</p>	
	Biodiversity risks	
 Habitat degradation		
<p>The project addressed biodiversity risk through the restoration of degraded wetland habitats and associated ecological processes rather than through a species-specific conservation model.</p> <p>Project documents link the intervention to improved habitat condition, increased birdlife diversity in some sites, improved catches from fishing, and wetland ecological condition monitoring through macrophytes, zooplankton, and macroinvertebrates.</p>		
Key results achieved or expected (ecosystem/livelihood/resilience outcome)	<p>By December 2022, project reporting cited in the independent baseline evaluation recorded 38,317 ha of degraded wetlands restored against an end-of-project target of 64,370 ha, plus 1,655 ha of degraded catchment restored against a target of 11,630 ha.</p> <p>The same source reports 17,422 households supported through alternative livelihood interventions; 3,427 beneficiaries receiving livestock packages, including 1,526 women; 2,366 farmers receiving seed support; 1,722 farmers accessing solar-powered mini-irrigation; and 1.48 million people in project areas gaining access to improved climate information, with coverage rising from 20% in 2020 to 38% in 2022. District-disaggregated restoration figures show especially large, restored areas in Kibuku (5,905 ha), Rukungiri (5,467 ha), Namutumba (4,482 ha), Bushenyi (3,007 ha), and Butebo (2,923 ha).</p>	



<p>Potential for scaling or replication</p>	<p> <input type="radio"/> High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> Unknown </p> <p>What is most scalable in this project is not a single restoration activity but the integrated model wetland restoration linked to catchment treatment, livelihood substitution, and localized climate-information delivery. That model is potentially replicable in other Ugandan wetland landscapes where degradation is being driven by livelihood dependence, hydrological disruption, and weak access to early warning information. The conditions required are substantial functioning district-level implementation capacity, political support to curb damaging wetland use, wetland mapping and user inventories, budget for community engagement and restoration follow-through, and viable alternative livelihoods, so pressure is actually reduced rather than shifted.</p> <p>The main constraints are also clear in that evidence-based restoration effects are time-lagged, community and political buy-in are essential, and benefits depend on sequential implementation in which livelihood support builds on physical restoration rather than replacing it.</p>
<p>References</p>	<ul style="list-style-type: none"> • GCF FP034 project page https://www.greenclimate.fund/project/fp034 • GCF funding proposal for FP034 https://www.greenclimate.fund/sites/default/files/document/funding-proposal-fp034-undp-uganda.pdf • UNDP Project Portal record for project 5711 https://www.adaptation-undp.org/projects/green-climate-fund-building-resilient-communities-wetland-ecosystems-and-associated • Gender Action Plan for FP34 https://www.greenclimate.fund/sites/default/files/document/gender-action-plan-fp034-undp-uganda.pdf • The 2025 Learning-Oriented Real-Time Impact Assessment Programme baseline report for FP034 prepared under the Independent Evaluation Unit of the GCF. https://ieu.greenclimate.fund/sites/default/files/document/250221-lorta-uganda-baseline-report-top.pdf • <i>Building resilient communities, wetland ecosystems and associated catchments in Uganda: Annual performance report CY2023</i> https://www.greenclimate.fund/sites/default/files/document/fp034-annual-performance-report-cy2023.pdf • <i>Building resilient communities, wetlands ecosystems and associated catchments in Uganda: Impact evaluation baseline report</i> https://www.researchgate.net/publication/389355478_Building_resilient_communities_wetlands_ecosystems_and_associated_catchments_in_Uganda_-_impact_evaluation_baseline_report








4 Investing in Forest and Protected Areas for Climate Smart Development (IFPA-CD) Project	
Implementation entity	Government of Uganda, led by the MWE, jointly implemented with the Ministry of Tourism, Wildlife and Antiquities; the National Forestry Authority; and the Uganda Wildlife Authority
Funding source	World Bank
Implementation period	2021–2025
Project status	Ongoing
Geographic area (region/district/catchment)	The Albertine Rift, the refugee-hosting areas of the West Nile Region, and Lamwo District, with interventions spanning forests, protected areas, and surrounding community landscapes.
Intended beneficiaries	Forest- and protected area-dependent communities and vulnerable households, including women and historically marginalized Batwa communities; public agencies responsible for forest and wildlife management; and enterprises linked to forestry and tourism are identified as beneficiaries in public project briefs.
Social inclusion focus (if any)	<p><input checked="" type="checkbox"/> Women <input type="checkbox"/> Youth <input checked="" type="checkbox"/> Vulnerable groups</p> <p>Project briefs explicitly identify vulnerable and marginalized communities, including women, girls, boys, and the Batwa, as target groups. That supports an explicit inclusion claim, although publicly available sources do not provide a detailed published GESI outcome framework comparable to a full gender action plan.</p>
Societal challenges addressed by NbS	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p> Declining forest ecosystem goods and services</p> </div> <div style="width: 45%;"> <p> Degraded tourism and forestry assets</p> </div> </div>
	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p> Growing climate-related vulnerability of livelihoods and biodiversity</p> </div> <div style="width: 45%;"> <p> Pressures on community well-being in forested and protected landscapes</p> </div> </div>
Ecosystem(s) targeted	Natural forests, protected areas, wildlife landscapes, and adjacent production and community lands in western and northern Uganda are the main ecosystems targeted.
Ecosystem services enhanced	<ul style="list-style-type: none"> • Forest ecosystem stability • Watershed protection • Biodiversity support • Livelihood benefits • Broader regulating services that forests and protected areas provide, under increasing climate stress










Description of NbS	<p>Although not branded as a pure NbS program, the project uses restoration, sustainable forest management, protected area management, community landscape management, and livelihood-linked forest stewardship as the main mechanisms for building resilience. Its adaptation logic lies in restoring and maintaining ecosystem structure and function, so forests and protected areas continue to provide water regulation, habitat, income support, and ecological buffering under climate pressure</p>
Risks addressed	<p>Climate risks</p> <p>Project documentation explicitly links the intervention to vulnerability to climate change effects arising from degraded forestry ecosystems and declining ecosystem services.</p> <p>Biodiversity risks</p> <p>The project addresses deforestation, forest degradation, pressure on protected areas, and weakening of ecological integrity in some of Uganda's priority forest and wildlife landscapes.</p>
Key results achieved or expected (ecosystem/ livelihood/resilience outcome)	<p>Public sources confirm active implementation, but they do not provide a single concise and current results package suitable for a quantified inventory paragraph without extracting detailed supervision and implementation reports.</p>
Potential for scaling or replication	<p><input type="radio"/> High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> Unknown</p> <p>The most scalable feature is the integration of forest and protected area restoration with livelihood and institutional strengthening across large landscapes. Replication requires strong state agencies, multi-agency coordination, and financing large enough to sustain both ecological investments and community benefit flows. The major constraint is that this model is governance-heavy and slower to reproduce than small projectized restoration efforts.</p>
References	<ul style="list-style-type: none"> • IFPA-CD Project https://projects.worldbank.org/en/projects-operations/project-detail/P170466 • Uganda Wildlife Authority https://ugandawildlife.org/uwa-projects/investing-in-forest-and-protected-areas-for-climate-smart-development-project/ • MWE IFPA-CD project page https://mwe.go.ug/publications/reports/project/project-brief-for-ifpa-cd-project • UWA IFPA-CD brief https://ugandawildlife.org/uwa-projects/investing-in-forest-and-protected-areas-for-climate-smart-development-project/








5 Enhancing Resilience of Communities to Climate Change through Catchment Based Integrated Management of Water and Related Resources in Uganda (EURECCCA)	
Implementation entity	Government of Uganda through the MWE and associated water-management institutions
Funding source	Adaptation Fund financing
Implementation period	2017–2023
Project status	Completed
Geographic area (region/district/catchment)	The project focused on Awoja catchment in the Kyoga Water Management Zone, Maziba catchment in the Victoria Water Management Zone, and Aswa catchment in the Upper Nile Water Management Zone.
Intended beneficiaries	Communities exposed to floods, landslides, water stress, and ecosystem degradation in the three target catchments are the primary intended beneficiaries, particularly small-scale farmers and herders living in vulnerable highland, wetland, and savannah settings.
Social inclusion focus (if any)	<input type="radio"/> Women <input type="radio"/> Youth <input type="radio"/> Vulnerable groups Public materials emphasize community resilience and equitable catchment management, but they do not provide enough detail to verify a project-specific GESI mechanism beyond inclusive community targeting.
Societal challenges addressed by NbS	 Flood risk  Landslide risk
	 Degraded catchment condition  Water insecurity
	 Livelihood instability caused by weak integrated management of water and related ecosystems.
Ecosystem(s) targeted	<ul style="list-style-type: none"> • Catchments • Wetlands • Forests • Riverbanks • Agricultural landscapes within the three target basins
Ecosystem services enhanced	<ul style="list-style-type: none"> • Improved water harvesting • Soil conservation • Flood-control functions in agricultural landscapes



<p>Description of NbS</p>	<p>EURECCCA used catchment-based ecosystem management as the main adaptation pathway. It restored and managed forests, wetlands, and riverbanks while supporting soil and water conservation and flood-control measures that strengthened the regulating functions of whole catchments rather than treating flood and landslide risk as isolated engineering problems.</p>				
<p>Risks addressed</p>	<p>Climate risks</p> <p>The project explicitly targeted resilience to</p> <table border="0" data-bbox="528 595 1399 786"> <tr> <td data-bbox="528 595 603 786">  </td> <td data-bbox="603 595 962 786"> <p>Floods</p> </td> <td data-bbox="962 595 1037 786">  </td> <td data-bbox="1037 595 1399 786"> <p>Landslides, with broader relevance for water stress and climate variability across the three catchments</p> </td> </tr> </table> <p>Biodiversity risks</p> <p> The project reduced ecosystem degradation in forests, wetlands, and riparian systems whose declining condition was undermining both biodiversity values and resilience functions.</p>		<p>Floods</p>		<p>Landslides, with broader relevance for water stress and climate variability across the three catchments</p>
	<p>Floods</p>		<p>Landslides, with broader relevance for water stress and climate variability across the three catchments</p>		
<p>Key results achieved or expected (ecosystem/livelihood/resilience outcome)</p>	<p>Project closure reporting confirms that the project supported sustainable management of forests, wetlands, and riverbanks and helped communities implement water harvesting, soil biophysical, and flood-control measures.</p>				
<p>Potential for scaling or replication</p>	<p><input type="radio"/> High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> Unknown</p> <p>The replicable feature is the catchment-based adaptation model that links upstream ecosystem management with downstream risk reduction. Replication requires functioning catchment institutions, planning instruments, and cross-district coordination. The main constraint is that catchment-scale work is institutionally complex and depends on sustained collective action across multiple jurisdictions.</p>				
<p>References</p>	<ul style="list-style-type: none"> • Adaptation Fund project brief https://www.adaptation-fund.org/project/enhancing-resilience-of-communities-to-climate-change-through-catchment-based-integrated-management-of-water-and-related-resources-in-uganda/ • MWE EURECCCA 2025 report https://mwe.go.ug/documents/EURECCCA_Report.pdf • Observatoire du Sahara et du Sahel EURECCCA page https://www.oss-online.org/en/se-uganda • GWP closure note https://www.gwp.org/en/GWP-Eastern-Africa/ABOUT-GWPEA/press-room/News/eureccca-closes/ 				



6 Mountain Ecosystem-Based Adaptation in the Mount Elgon Ecosystem	
Implementation entity	MWE of the Government of Uganda in partnership with UNDP, UNEP, and International Union for the Conservation of Nature (IUCN).
Funding source	German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety through the International Climate Initiative
Implementation period	2011–2015
Project status	Completed
Geographic area (region/district/catchment)	The project was implemented in the Mount Elgon ecosystem in eastern Uganda, specifically in the Bulambuli, Kapchorwa, Kween, and Sironko districts.
Intended beneficiaries	The main beneficiaries were rural communities living in and around the Mount Elgon ecosystem whose livelihoods depend on rain-fed farming, mountain water sources, slopes, forests, and associated ecosystem services.
Social inclusion focus (if any)	<input type="radio"/> Women <input type="radio"/> Youth <input type="radio"/> Vulnerable groups Publicly available project documents do not provide enough detail to verify project-specific GESI integration, so no explicit GESI outcome is claimed.
Societal challenges addressed by NbS	 Flooding  Recurrent landslides and soil erosion
	 Prolonged dry spells  Declining water regulation
	 Livelihood insecurity in a densely populated mountain landscape under strong land-use pressure
Ecosystem(s) targeted	<ul style="list-style-type: none"> • Mountain catchments • Upper-slope agricultural landscapes • Riverbanks • Wetlands • Agroforestry systems linked to the Mount Elgon ecosystem
Ecosystem services enhanced	<ul style="list-style-type: none"> • Slope stabilization • Soil retention • Water infiltration and retention • Runoff regulation, and the ecological functions that support agricultural production and local water security



<p>Description of NbS</p>	<p>The project used ecosystem-based adaptation in a mountain landscape by combining soil and water conservation, hillside ditches, runoff retention measures, agroforestry, grass strips, and related vegetative and agronomic measures to restore ecological function and reduce climate risk. In practice, the project treated the mountain ecosystem itself as adaptation infrastructure rather than relying only on engineered responses.</p>												
<p>Risks addressed</p>	<p>Climate risks</p> <p>The project responded directly to</p> <table border="1" data-bbox="528 622 1399 896"> <tr> <td data-bbox="528 622 603 696"></td> <td data-bbox="603 622 962 696">Landslides and erosion</td> <td data-bbox="962 622 1035 696"></td> <td data-bbox="1035 622 1399 696">Flooding</td> </tr> <tr> <td data-bbox="528 696 603 896"></td> <td data-bbox="603 696 962 896">Water stress associated with climate variability and changing rainfall patterns in the Mount Elgon region.</td> <td data-bbox="962 696 1035 896"></td> <td data-bbox="1035 696 1399 896">Prolonged dry periods</td> </tr> </table> <p>Biodiversity risks</p> <p>The project reduced</p> <table border="1" data-bbox="528 1012 1399 1211"> <tr> <td data-bbox="528 1012 603 1211"></td> <td data-bbox="603 1012 962 1211">Floods</td> <td data-bbox="962 1012 1035 1211"></td> <td data-bbox="1035 1012 1399 1211">Landslides, with broader relevance for water stress and climate variability across the three catchments</td> </tr> </table>		Landslides and erosion		Flooding		Water stress associated with climate variability and changing rainfall patterns in the Mount Elgon region.		Prolonged dry periods		Floods		Landslides, with broader relevance for water stress and climate variability across the three catchments
	Landslides and erosion		Flooding										
	Water stress associated with climate variability and changing rainfall patterns in the Mount Elgon region.		Prolonged dry periods										
	Floods		Landslides, with broader relevance for water stress and climate variability across the three catchments										
<p>Key results achieved or expected (ecosystem/livelihood/resilience outcome)</p>	<p>Project closure reporting confirms that the project supported sustainable management of forests, wetlands, and riverbanks and helped communities implement water harvesting, soil biophysical, and flood-control measures.</p>												
<p>Potential for scaling or replication</p>	<p><input type="radio"/> High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> Unknown</p> <p>The replicable feature is the catchment-based adaptation model that links upstream ecosystem management with downstream risk reduction. Replication requires functioning catchment institutions, planning instruments, and cross-district coordination. The main constraint is that catchment-scale work is institutionally complex and depends on sustained collective action across multiple jurisdictions.</p>												







References

- Adaptation Fund project brief
<https://www.adaptation-fund.org/project/enhancing-resilience-of-communities-to-climate-change-through-catchment-based-integrated-management-of-water-and-related-resources-in-uganda/>
- MWE EURECCCA 2025 report
https://mwe.go.ug/documents/EURECCCA_Report.pdf
- Observatoire du Sahara et du Sahel EURECCCA page
<https://www.oss-online.org/en/se-uganda>
- GWP closure note
<https://www.gwp.org/en/GWP-Eastern-Africa/ABOUT-GWPEA/press-room/News/eureccca-closes/>



7 Scaling Up Mountain Ecosystem-Based Adaptation (EBA): Building evidence, replicating success, and informing policy

Implementation entity	Led by The Mountain Institute and implemented jointly with the IUCN and the MWE Uganda	
Funding source	The project was funded by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety through the International Climate Initiative.	
Implementation period	2017–2020	
Project status	Completed	
Geographic area (region/district/catchment)	Mt. Elgon National Park Landscape within Kapchorwa District	
Intended beneficiaries	The main beneficiaries were rural communities living in and around the Mount Elgon ecosystem whose livelihoods depended on rain-fed farming, mountain water sources, slopes, forests, and associated ecosystem services.	
Social inclusion focus (if any)	<input checked="" type="checkbox"/> Women <input type="checkbox"/> Youth <input checked="" type="checkbox"/> Vulnerable groups <p>The project documents state that one of their intended goals was to help bring water from the River Sipi closer to mountain communities, explicitly shortening the long distances women and children have to trek to fetch water. Program reporting also notes that the program reached 1,500 people directly, 55% of them women.</p>	
Societal challenges addressed by NbS	The project addressed a cluster of livelihood and service delivery challenges rooted in ecosystem decline. Project documents describe communities in the Mountain Elgon landscape as highly dependent on mountain natural resources for water, food, pasture, raw materials, and ecosystem services, while also facing declining water supply, degraded land, depleted forests, and cultivation of wetlands and riverbanks.	
	 Water insecurity	 Land degradation
	 Livelihood vulnerability in rain-fed farming systems	 Social burden created when ecosystem decline pushes households, especially women, into longer and riskier journeys to collect water







Ecosystem(s) targeted	<ul style="list-style-type: none"> • Mountain ecosystems, specifically its catchment areas, riverbanks, forest ecosystems, wetlands • Upper-slope agricultural landscapes • Wetlands • Agroforestry systems linked to the Mount Elgon ecosystem
Ecosystem services enhanced	<ul style="list-style-type: none"> • Slope stabilization • Soil retention • Water infiltration and retention • Runoff regulation and the ecological functions that support agricultural production and local water security
Description of NbS	<p>The project prioritized and developed adaptive solutions to achieve healthier local ecosystems and greater resilience in Mount Elgon communities. Activities included restoring catchment areas, rehabilitating riverbanks, establishing buffer zones, and promoting agroforestry on farms. The functional NbS logic was restoring the watershed condition as a means to reduce erosion and flooding, improve water availability, strengthen soil and provisioning ecosystem services, and build the resilience of local livelihoods that depend on mountain ecosystems.</p>
Risks addressed	<p>Climate risks</p> <p>Resident communities are particularly vulnerable to climate change due to rapid population growth and a strong dependence on the mountain's natural resources. Because the key risk is declining water supply, the project will advance work to restore catchment areas, including riverbank rehabilitation. Other risks include hydrological stress, landslides, flooding, soil degradation.</p>
	<p>Biodiversity risks</p> <p>The project contributed to addressing habitat loss and fragmentation. It prevented the further degradation of critical mountain habitats. The project protected endangered species and maintained ecological balance, thus, preventing species extinction. By carefully managing a mountain watershed, erosion and pollution are reduced and native plant species and wildlife can rebound.</p>
Key results achieved or expected (ecosystem/ livelihood/resilience outcome)	<p>Project documentation states that the project improved provisioning ecosystem services and increased food security for farmers through its agroforestry interventions on farmlands. Project documents also state that more than 2,076 ha of land would be improved by the end of the project. The project reported that it reached 1,500 people, 55% of whom were women</p>







<p>Potential for scaling or replication</p>	<p> <input checked="" type="radio"/> High <input type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> Unknown </p> <p>Scaling is built into the design of the project. The project was explicitly structured to build evidence, replicate success, and inform policy. The Uganda component of the project was framed as a consolidation and replication effort building on the earlier work in the Mount Elgon landscape.</p> <p>Project documents state that lessons and evidence from the project were intended to support replication in other mountain areas and feed into local and national planning processes (IUCN EbA Projects). The real scaling potential is the package of catchment restoration, riverbank rehabilitation, agroforestry and policy mainstreaming.</p>
<p>References</p>	<ul style="list-style-type: none"> • IUCN's Scaling-up Mountain Ecosystem-Based Adaptation https://iucn.org/sites/default/files/2022-11/oct_31_information_brief_key-findings_0.pdf • International Climate Initiative's Scaling Up Mountain EbA project data https://www.international-climate-initiative.com/en/project/scaling-up-mountain-ecosystem-based-adaptation-building-evidence-replicating-success-and-informing-policy-20-ii-187-global-a-ebas-in-mountain-regions-upscaling/ • The Mountain Institute, Scaling Up Mountain EbA briefing sheet https://mountain.org/wp-content/uploads/UGANDA_MtEbA-Briefing-Sheet_July-2018.pdf • The Mountain Institute, Mountain EbA – Uganda project https://web.archive.org/web/20240524103220/https://mountain.org/where-we-work/mountain-eba/mountain-eba-uganda/



8 Restoration for a Resilient Rwenzori (R3)	
Implementation entity	WWF Uganda, Uganda Conservation Foundation, and the Uganda Wildlife Authority
Funding source	Hempel Foundation
Implementation period	2023–2025
Project status	Completed
Geographic area (region/district/catchment)	Rwenzori landscape in western Uganda, including the Rwenzori Mountains National Park buffer zone and adjoining forest and district landscapes.
Intended beneficiaries	Households living around the Rwenzori Mountains National Park and adjacent forest landscapes, and ecosystem-dependent communities exposed to degradation and climate stress
Social inclusion focus (if any)	<input type="radio"/> Women <input type="radio"/> Youth <input type="radio"/> Vulnerable groups Public materials do not set out a project-specific GESI mechanism in detail.
Societal challenges addressed by NbS	 Environmental degradation  Livelihood vulnerability
	 Declining ecosystem services
	 Climate stress in a mountain landscape where park buffer instability directly affects both communities and conservation outcomes
Ecosystem(s) targeted	<ul style="list-style-type: none"> • Mountain forest landscapes • Park buffer areas • Freshwater-linked systems • Agricultural landscapes
Ecosystem services enhanced	The project was designed to strengthen ecosystem services linked to forest stability, buffer-zone integrity, water regulation, livelihood support, and overall climate resilience.
Description of NbS	The project used integrated park management and buffer stabilization as the core adaptation pathway. Project documents and news updates show restoration in the park buffer and adjacent landscapes, combined with livelihood-oriented measures intended to reduce pressure on degraded ecosystems while improving ecological function and resilience.




Risks addressed	Climate risks
	The project is framed around environmental resilience and climate in a highly climate-sensitive mountain landscape, with restoration functioning as a response to ecosystem degradation and the associated livelihood and hydrological risks. Risks such as increased frequency of extreme weather events, such as floods, droughts, and landslides, which threaten both ecosystems and human settlements, are addressed by the project.
	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> Floods</div> <div style="text-align: center;"> Droughts</div> </div>
	 Landslides
	Biodiversity risks
The project aims to safeguard the ecological integrity of the Rwenzori Mountains National Park and adjacent forest landscapes by reducing habitat degradation and strengthening habitat condition.	
	 Habitat degradation
Key results achieved or expected (ecosystem/ livelihood/resilience outcome)	WWF reported in June 2024 that the project had mobilized more than 410 households to restore 455 ha of land in the park buffer zone. Later reporting in 2025 confirms continued strengthening of district and community structures to protect forest landscapes and promote alternative sustainable livelihoods.
Potential for scaling or replication	<p><input type="radio"/> High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> Unknown</p> <p>What can scale is the model of buffer-zone restoration tied to local livelihood incentives and district planning around a mountain protected area. Replication requires strong park–community interfaces, trusted local institutions, and financing for both restoration and livelihood transition. The main constraint is that buffer-zone gains are fragile where surrounding economic pressure remains high.</p>
References	<ul style="list-style-type: none"> • WWF launch article https://www.wwfuganda.org/?44763/WWF-Partners-Launch-New-Project-on-Restoration-for-Rwenzori • WWF progress article https://www.wwfuganda.org/?48643/Restoring-Rwenzori-Community-Action-Towards-Environmental-Resilience • WWF 2025 district planning handover https://www.wwfuganda.org/?54591/WWF-Hands-Over-DFDPs-to-Districts-Around-Rwenzori-Mountains-to-Boost-Restoration-and-Resilience















9 Supply and Demand Restoration in Uganda for People and Biodiversity	
Implementation entity	Botanic Gardens Conservation International and partners in Uganda
Funding source	Darwin Initiative funding
Implementation period	The project operated during the early 2020s and is treated here as completed based on public case-study positioning.
Project status	Completed
Geographic area (region/district/catchment)	Multiple sites in Uganda, including protected sites and community landscapes. The short public project summaries do not provide a complete district list.
Intended beneficiaries	Rural seed collectors, nursery operators, restoration actors, and communities benefiting from more biodiverse restoration plant supply.
Social inclusion focus (if any)	<input type="radio"/> Women <input type="radio"/> Youth <input type="radio"/> Vulnerable groups Public summaries do not provide enough detail to verify a precise GESI claim.
Societal challenges addressed by NbS	 Degraded forest landscapes  Biodiversity loss
	 Weak availability of indigenous restoration planting material
Ecosystem(s) targeted	Native forest restoration landscapes and associated community restoration sites
Ecosystem services enhanced	By improving the use of indigenous and threatened tree species in restoration, the project strengthens <ul style="list-style-type: none"> • Ecological recovery • Habitat value and the long-term resilience functions of restored landscapes, including <ul style="list-style-type: none"> • Water regulation • Broader ecosystem stability
Description of NbS	This project tackles a critical NbS bottleneck in the supply and demand system for ecologically suitable native species. It builds seed networks, nurseries, and restoration demonstration plots so that restoration in Uganda is based more on indigenous species that can rebuild ecosystem function rather than simply increase tree cover.











Risks addressed	Climate risks
	The project contributes to resilience indirectly by improving the ecological quality of forest landscape restoration, which strengthens the long-term capacity of restored areas to regulate water and recover ecosystem function under climate stress.
	Biodiversity risks
	 Loss of native tree diversity and the underuse of threatened indigenous species in restoration practice
Key results achieved or expected (ecosystem/livelihood/resilience outcome)	Project documentation states that the project trained and employed more than 100 people from rural areas to collect seeds and propagate indigenous seedlings and established eight restoration demonstration plots, four in protected sites and four in community lands.
Potential for scaling or replication	<p><input type="radio"/> High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> Unknown</p> <p>What can scale is the restoration supply-chain model for indigenous species. The conditions required are nursery capacity, seed sourcing systems, restoration demand from government and non-governmental organizations, and technical knowledge of site-species matching. The main constraint is that ecologically appropriate restoration is slower and more knowledge-intensive than generic tree-planting schemes.</p>
References	<ul style="list-style-type: none"> • Botanic Gardens Conservation International project page https://www.bgci.org/our-work/projects-and-case-studies/supply-and-demand-restoration-in-uganda-for-people-and-biodiversity/ • Darwin Initiative project page https://www.darwininitiative.org.uk/project/DAR25020 • Botanic Gardens Conservation International case study https://www.bgci.org/our-work/projects-and-case-studies/supply-demand-restoration-in-uganda/















10 Innovative and Gender-Sensitive NbS for Resilience and Green Jobs (Rwenzori)					
Implementation entity	WWF Uganda				
Funding source	Public records connect the project to Danish support and list it in donor project systems as a dedicated NbS and green-jobs intervention.				
Implementation period	2021–2024				
Project status	Completed				
Geographic area (region/district/catchment)	Rwenzori landscape, covering Kasese, Kabarole, Bunyangabu, Ntoroko, Bundibugyo, and Rubirizi districts.				
Intended beneficiaries	Communities within the Rwenzori landscape exposed to climate change and poverty, including women and other groups targeted through the project’s gender-sensitive design.				
Social inclusion focus (if any)	<input checked="" type="radio"/> Women <input type="radio"/> Youth <input type="radio"/> Vulnerable groups GESI integration is explicit in the project title and profile. Public materials describe the intervention as innovative and gender sensitive, which is sufficient to state that gender responsiveness is built into project design even where the short public profile does not provide a full results framework.				
Societal challenges addressed by NbS	<table border="0"> <tr> <td> Climate change</td> <td> Ecosystem degradation</td> </tr> <tr> <td> Poverty</td> <td> Limited livelihood opportunities</td> </tr> </table>	 Climate change	 Ecosystem degradation	 Poverty	 Limited livelihood opportunities
 Climate change	 Ecosystem degradation				
 Poverty	 Limited livelihood opportunities				
Ecosystem(s) targeted	Forest and landscape mosaics within the Rwenzori region, including degraded areas where restoration and landscape management can improve resilience and livelihoods.				
Ecosystem services enhanced	The project is designed to strengthen ecosystem functions that support community well-being, climate resilience, and livelihood security while also reducing pressure on degraded natural systems.				
Description of NbS	The project applies landscape-level restoration and sustainable ecosystem management to generate both resilience and green jobs. Public project profiles state that the project uses NbS to harness nature’s potential to support community well-being while reducing climate and poverty pressures.				








Risks addressed	Climate risks			
		Flooding		Drought
		Landslides		Long-term climate stress affecting livelihoods and ecosystem resilience
	Biodiversity risks			
		Forest degradation		Pressure on important natural resources
		Degradation of water towers and other key vegetation		Decline in ecosystem resilience and conditions within the Rwenzori Landscape
Key results achieved or expected (ecosystem/livelihood/resilience outcome)	In fiscal year 2022–2023, WWF Uganda reported that the project created 617 direct jobs for women and youth through the implementation of NbS in the Nyamwamba sub-catchment. The same report also records the restoration of 20 km of degraded riverbanks in the Kyenojo and Rukooki micro-catchments and the demarcation of 5.7 km of riverbank.			
Potential for scaling or replication	<input type="radio"/> High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> Unknown The replicable feature is the deliberate pairing of NbS restoration with livelihood and green job pathways. Replication requires functioning local value chains and clear incentives so that livelihood gains reinforce restoration rather than undermine it. The key constraint is that not all green job claims translate into durable ecosystem outcomes without sustained market support.			
References	<ul style="list-style-type: none"> • WWF Uganda launch note https://www.wwfuganda.org/?36143/WWF-Launches-a-new-project-for-Green-jobs-and-Nature-based-Solutions • Project profile PDF https://wwfafrica.awsassets.panda.org/downloads/green_jobs__nbs__project_profile_.pdf • Donor project record https://openaid.um.dk/project/XM-DAC-3-1-286134?appBasePath=projects 			







11 Restoration of Wetlands and Associated Catchments in Eastern Uganda/Mpologoma Catchment Restoration									
Implementation entity	Implemented by ECOTRUST in partnership with UNDP and the Government of Uganda.								
Funding source	Austrian Development Cooperation								
Implementation period	2021–2023								
Project status	Completed								
Geographic area (region/district/catchment)	Mpologoma catchment in eastern Uganda within the Kyoga Water Management Zone. The project focused on the five districts of Butaleja, Budaka, Kibuku, Namutumba, and Kaliro.								
Intended beneficiaries	Communities and farmers in the Mpologoma catchment whose livelihoods depend on wetlands and associated catchments are the intended beneficiaries, together with downstream ecosystem users dependent on improved catchment function.								
Social inclusion focus (if any)	<input type="radio"/> Women <input type="radio"/> Youth <input type="radio"/> Vulnerable groups Publicly available project pages do not provide a specific GESI framework for this intervention.								
Societal challenges addressed by NbS	<table border="0"> <tr> <td></td> <td>Wetland degradation</td> <td></td> <td>Livelihood vulnerability</td> </tr> <tr> <td></td> <td>Weak catchment management</td> <td></td> <td>Declining resilience of both communities and ecosystems</td> </tr> </table>		Wetland degradation		Livelihood vulnerability		Weak catchment management		Declining resilience of both communities and ecosystems
	Wetland degradation		Livelihood vulnerability						
	Weak catchment management		Declining resilience of both communities and ecosystems						
Ecosystem(s) targeted	Wetlands and associated catchments in the Mpologoma river system								
Ecosystem services enhanced	The intervention is designed to <ul style="list-style-type: none"> • Improve water regulation • Protect intact wetlands • Restore degraded wetland and catchment function • Support more resilient agricultural and livelihood systems. 								
Description of NbS	This project uses wetland and catchment restoration as a direct resilience mechanism. Public descriptions emphasize the restoration and rehabilitation of degraded wetlands and associated catchments, promotion of improved agricultural practices and alternative livelihoods, and knowledge and communication measures that support catchment-based management.								











Risks addressed	Climate risks
	The project is explicitly framed as a response to climate-related impacts and vulnerabilities in the Mpologoma catchment.
	 Flooding  Climate variability
	 Agricultural drought
	Biodiversity risks
By restoring degraded wetlands and protecting intact ones, the project reduces	
	 Ecological decline in a highly pressured catchment system.  Habitat loss
Key results achieved or expected (ecosystem/ livelihood/resilience outcome)	Public project summaries confirm three result areas of degraded wetlands and associated catchments restored or rehabilitated and intact wetlands protected; improved agricultural practices and alternative livelihood options promoted; and improved knowledge management and communication.
Potential for scaling or replication	<input type="radio"/> High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> Unknown <p>The project is replicable in other wetland-dominated catchments where climate vulnerability is tied to ecosystem degradation. Conditions required include a functioning catchment plan, local implementation partners, and livelihood alternatives that reduce pressure on restored wetlands. The constraint is that catchment restoration depends on sustained behaviour change across many land users, not only technical restoration works.</p>
References	<ul style="list-style-type: none"> • ECOTRUST project page https://ecotrust.or.ug/update-restoration-of-wetlands-and-associated-catchments-project-in-eastern-uganda-ada-2021-2023/ • Austrian Development Cooperation project page https://www.entwicklung.at/en/projects/detail-en/restoration-of-wetlands-and-associated-catchments-in-eastern-uganda • Mpologoma catchment management plan https://docslib.org/doc/6122590/mpologoma-catchment-management-plan-foreword • Midterm evaluation of the Restoration of Wetlands and Associated Catchments in Eastern Uganda project https://erc.undp.org/evaluation/documents/download/23150



12 Mpanga Catchment Conservation (MCC)






Implementation entity	MWE and associated catchment management actors		
Funding source	Conrad N. Hilton Foundation.		
Implementation period	2024–2027		
Project status	Ongoing		
Geographic area (region/district/catchment)	Mpanga catchment, within the Kabarole, Kyenjojo, and Ibanda districts in the Tooro sub-region.		
Intended beneficiaries	Communities and water users within the Mpanga catchment affected by wetland encroachment, riverbank degradation, pollution, and declining catchment function		
Social inclusion focus (if any)	<input type="radio"/> Women <input type="radio"/> Youth <input type="radio"/> Vulnerable groups Publicly available sources do not provide enough information to confirm a project-specific GESI inclusion.		
Societal challenges addressed by NbS	 Wetland encroachment	 Pollution	
	 Riverbank degradation	 Decline of catchment health that threatens water security and ecosystem stability	
Ecosystem(s) targeted	<ul style="list-style-type: none"> • Catchments • Wetlands • Riverbanks • Forests, and associated water-source landscapes in the Mpanga system 		
Ecosystem services enhanced	The project is intended to recover catchment function, water-source protection, riparian stability, and the regulating services needed for water security.		
Description of NbS	The project uses catchment restoration and conservation as the primary mechanism for resilience. Public material links it to restoration of degraded areas and protection of forest and river ecosystems within the Mpanga catchment, framed against the priorities set out in the Mpanga Catchment Management Plan.		








Risks addressed	Climate risks			
		Hydrological stress		Water source insecurity
		Climate-related pressure on catchment function		Community vulnerability linked to declining catchment resilience
	Biodiversity risks			
		Wetland degradation		Riverbank degradation
	Degradation of forest-linked ecosystems that support both biodiversity and catchment stability		Pollution	
Key results achieved or expected (ecosystem/livelihood/resilience outcome)	The project is expected to yield significant environmental and institutional benefits, including the restoration of degraded landscapes through afforestation on both private and public lands; restoration and demarcation of wetland systems and their buffer zones; establishment of soil and water conservation structures; installation of a mini weather station within the Mpanga catchment; construction of a hydro-monitoring station at the Mpanga catchment outlet; capacity building for the Mpanga Catchment Management Organization to enhance its operational effectiveness.			
Potential for scaling or replication	<input type="radio"/> High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> Unknown The replicable feature is the use of catchment planning to drive the restoration of strategically important river systems. Replication requires functional catchment management institutions and sustained district coordination. The constraint is that restoration gains can be reversed quickly where pollution and land-use pressures remain unmanaged.			
References	<ul style="list-style-type: none"> MWE Mpanga Catchment Conservation page https://www.mwe.go.ug/projects/MCC Mpanga Catchment Management Plan https://watershed.nl/wp-content/uploads/sites/2/2020/12/mpanga-catchment-management-plan.pdf 			









13 National Wetlands Restoration Project II (NWRPII)

Implementation entity	MWE through national, regional, district, and community wetland-management structures
Funding source	Publicly available ministry pages identify the project as a government-led national wetland restoration program, but the financing package is not summarized in the short public project overview currently available online.
Implementation period	The project is publicly described as a 5-year intervention.
Project status	Ongoing
Geographic area (region/district/catchment)	The project is being implemented in the following target areas: Lumbuye, Kibimba, Awoja, Ssezibwa, Mayanja, Tochi, Enyau, Aswa, Muzizi, and Mpanga wetland systems.
Intended beneficiaries	The principal beneficiaries are wetland-dependent communities, local water users, district institutions, and the wetland systems whose ecological condition underpins flood regulation, water availability, and biodiversity support.
Social inclusion focus (if any)	<input type="radio"/> Women <input type="radio"/> Youth <input type="radio"/> Vulnerable groups Publicly available project summaries do not provide enough detail to verify a project-specific GESI consideration, so no explicit GESI claim is made here.
Societal challenges addressed by NbS	 Wetland degradation  Declining water availability
	 Flood risk  Weakened livelihood options
	 Loss of ecological functions that buffer communities against climate variability
Ecosystem(s) targeted	The project targets wetland systems and their associated hydro-ecological landscapes.
Ecosystem services enhanced	The project is designed to improve water availability, flood abatement, biodiversity flows, climate buffering, and wetland-linked livelihood services by restoring degraded wetland sections and maintaining their integrity.
Description of NbS	The project uses wetland restoration, protection, demarcation, management planning, and wetland-compatible livelihood measures as the principal adaptation pathway. Its nature-based value lies in restoring regulating ecological functions of wetlands rather than treating wetlands as passive conservation areas detached from community resilience.












Risks addressed	Climate risks	
	 Flooding	 Hydrological instability
	 Climate-related water stress by restoring wetland systems that regulate water flow and store ecological resilience	
	Biodiversity risks	
	 Degradation of wetland habitats	 Interruption of biodiversity flows caused by encroachment and ecological decline
Key results achieved or expected (ecosystem/livelihood/resilience outcome)	The public project overview currently provides quantified implementation targets rather than achieved outcome figures. These targets include demarcating 2,500 km of wetlands, restoring 31,000 ha of wetland hydro-ecological and socio-economic services, developing 40 management plans, promoting 1,160 wetland-based enterprises, elevating the status of five selected wetlands through reserve or Ramsar designation (Ramsar Convention Secretariat, 2018) strengthening 237 technical and institutional actors, and reaching 600,000 households through awareness efforts.	
Potential for scaling or replication	<input type="radio"/> High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> Unknown The scalable feature is the programmatic restoration of priority wetland systems through a combination of demarcation, restoration, management planning, and livelihood transition support. Replication requires strong enforcement, district-level implementation capacity, and practical alternatives for households whose livelihoods currently depend on degrading wetland use. The main constraint is that large national programs can lose effectiveness if restoration is not matched by site-level compliance and sustained local incentives.	
References	<ul style="list-style-type: none"> Ministry of Water and Environment, National Wetlands Restoration Project II project page https://www.mwe.go.ug/projects/NWRPII 	







14 Building a Climate-Resilient and Sustainable Shea Landscape of Northern Uganda		
Implementation entity	Conservation International	
Funding source	GEF	
Implementation period	The concept was approved in 2024, and public implementation updates appeared in 2025.	
Project status	Planned	
Geographic area (region/district/catchment)	Northern Uganda in the districts of Agago, Kitgum, Otuke and Pader	
Intended beneficiaries	The project will support 4,320 people living across 4,500 ha of four rural districts of northern Uganda, where nearly all residents (between 80%–97%) depend on subsistence agriculture. Women will make up 60% of participants.	
Social inclusion focus (if any)	<input checked="" type="radio"/> Women <input type="radio"/> Youth <input type="radio"/> Vulnerable groups Public reporting indicates that women will make up 60% of participants, which is strong enough to show that participation design includes an explicit gender dimension.	
Societal challenges addressed by NbS	 Climate vulnerability	 Degradation of the shea landscape
	 Livelihood insecurity linked to the decline of the shea resource base	 Economic vulnerability of communities dependent on shea products
	 Livelihood pressures in a region highly dependent on subsistence agriculture	 Declining agricultural productivity in the shea landscape
Ecosystem(s) targeted	Shea landscape and associated agroforestry parkland systems in northern Uganda	
Ecosystem services enhanced	Integrated land management and restoration in the shea landscape are intended to improve soil moisture, vegetation cover, landscape productivity, and livelihood resilience linked to a culturally and economically important tree system.	
Description of NbS	This project uses integrated land management, restoration, and governance strengthening in a tree-based production landscape to improve climate resilience and sustainability. Its NbS value lies in strengthening the function of the shea parkland system itself rather than treating livelihoods and conservation as separate tracks.	



Risks addressed	Climate risks			
		Increased frequency of dry spells		Drought
		Climate-related stress on a fragile savannah ecosystem		Climate-linked decline in agricultural production
		Reduced natural regeneration in the shea landscape under increasing stressed ecological conditions		
	Biodiversity risks			
		Degradation of the shea landscape/population		Bushfire damage to regeneration guilds
	Weakening of a native tree-based ecosystem that supports both biodiversity and local livelihoods		Tree cutting for firewood and charcoal production	
Key results achieved or expected (ecosystem/livelihood/resilience outcome)	Because the project is in its early stages, the strongest current public evidence concerns design and intended reach rather than completed outcomes. Public reporting states planned support to 4,320 people across 4,500 ha in four rural districts.			
Potential for scaling or replication	<input type="radio"/> High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> Unknown The scalable feature is the use of an economically important native tree landscape as the basis for integrated resilience building. Replication requires landscape governance, value-chain support, and protection of native tree assets.			
References	<ul style="list-style-type: none"> • GEF project identification/proposal document https://publicpartnershipdata.azureedge.net/gef/GEFProjectVersions/d0bd9ff3-aa73-ef11-a671-6045bd05549b_PIF.pdf • Conservation International press release https://www.conservation.org/press/gef-grants-conservation-international-6.7-million-to-help-protect-uganda-s-shea-trees-rural-communities-from-climate-change 			



15 Peat4People – Sustainable Peatland Management for People, Climate and Biodiversity		
Implementation entity	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH, together with the Michael Succow Foundation/ Greifswald Mire Centre and Food and Agriculture Organization of the United Nations, in partnership with the Ministry of Water and Environment, in Uganda and Rwanda	
Funding source	German Federal Ministry for Economic Cooperation and Development funding through the Initiative for Climate and Environmental Protection	
Implementation period	2025–2027	
Project status	Ongoing	
Geographic area (region/district/catchment)	Uganda peatland landscapes, implemented as a Uganda–Rwanda regional project.	
Intended beneficiaries	Local communities and key stakeholders engaged in peatland use and management are the core intended beneficiaries, together with the peatland ecosystems whose protection underpins livelihoods, climate, and biodiversity outcomes.	
Social inclusion focus (if any)	<input type="radio"/> Women <input type="radio"/> Youth <input type="radio"/> Vulnerable groups Public short-form materials emphasize socially equitable use of peatlands, which is enough to note an explicit social-equity orientation, but not enough yet to describe a full GESI integration	
Societal challenges addressed by NbS	 Unsustainable peatland use	 Climate risk
	 Biodiversity loss	 Need to reconcile livelihood needs with long-term ecosystem protection
Ecosystem(s) targeted	Peatlands	
Ecosystem services enhanced	The project is designed to secure peatland ecosystem services linked to carbon storage, water regulation, biodiversity habitat, and sustainable livelihood support.	
Description of NbS	This project focuses on sustainable peatland management. Project documents show a dual strategy of improving policy and decision making while promoting socially equitable sustainable use, including paludiculture pathways, so peatland function is retained rather than degraded.	







Risks addressed	Climate risks
	The project contributes to climate resilience by protecting and managing peatlands whose hydrological and carbon functions are critical under increasing climate pressure.
	Biodiversity risks
	The project protects sensitive peatland habitats that are important for biodiversity and vulnerable to degradation and unsustainable use.
Key results achieved or expected (ecosystem/livelihood/resilience outcome)	The project is in early implementation. Public sources confirm launch in 2025, a 2025–2027 implementation window, and a focus on policy, sustainable use, paludiculture, and cooperation rather than yet reporting mature ecological outcomes.
Potential for scaling or replication	<p><input type="radio"/> High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> Unknown</p> <p>What can scale is the model of combining peatland conservation with sustainable use systems such as paludiculture. Replication requires technical know-how, viable livelihood models, and strong policy support because peatlands are highly sensitive ecosystems. The main constraint is that peatland management is specialized and easy to get wrong if commercial use outpaces ecological safeguards.</p>
References	<ul style="list-style-type: none"> • MWE Peat4People project page https://www.mwe.go.ug/projects/PEAT4PEOPLE • Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH project page https://www.giz.de/en/projects/sustainable-peatland-management-people-climate-and-biodiversity-peat4people • Global Peatlands Initiative launch note https://globalpeatlands.org/advancing-sustainable-peatlands-management-uganda-and-rwanda-launch-peat4people-project-1



16

Strengthening Adaptive Capacity and Resilience of Communities in Awoja Catchment (SACriAC)




Implementation entity	MWE			
Funding source	African Development Bank Group with support from the GEF			
Implementation period	2022–2027			
Project status	Ongoing			
Geographic area (region/district/catchment)	Awoja catchment, including Bukedea, Sironko, Kapchorwa, and Bulambuli districts and the sub-catchments of Komirya, Sironko, Simu-sisi, Muyembe, and Sipi.			
Intended beneficiaries	Communities in the Awoja catchment exposed to hydrological stress, degraded watersheds, and livelihood vulnerability			
Social inclusion focus (if any)	<input type="radio"/> Women <input type="radio"/> Youth <input type="radio"/> Vulnerable groups Short public project pages do not provide enough detail to support a specific GESI claim.			
Societal challenges addressed by NbS		Watershed degradation		Climate vulnerability
		Weak catchment management		Livelihood stress in a landscape exposed to recurrent climate-related shocks
Ecosystem(s) targeted	<ul style="list-style-type: none"> • Watersheds • Catchments • Agricultural landscapes in the Awoja system. 			
Ecosystem services enhanced	The project is intended to improve watershed function, protect natural resources, strengthen water-related resilience, and reduce risk for rural livelihoods.			
Description of NbS	SACriAC is a mixed adaptation project rather than a pure ecosystem-restoration program. Its design includes climate-resilient infrastructure, climate information and early warning systems, and institutional capacity development alongside catchment management and natural-resource protection. For this inventory purposes, its NbS for adaptation value lies in the watershed-management elements that restore and protect ecosystem function within the broader adaptation package.			



Risks addressed	Climate risks
	The project directly addresses adaptive capacity and climate resilience in the Awoja catchment, with watershed degradation and associated climate risks, for an increase in intensity and frequency of droughts, floods, and severe storms at the core of its design.
	Biodiversity risks
	The project protects natural resources in the watershed and reduces degradation pressures affecting ecological stability.
Key results achieved or expected (ecosystem/ livelihood/resilience outcome)	Public sources confirm implementation across the four target districts and the formal launch of wetland-management plans within the SACRiAC framework. The strongest publicly accessible evidence at present confirms the implementation footprint.
Potential for scaling or replication	<p><input type="radio"/> High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> Unknown</p> <p>The replicable feature is integrated watershed adaptation, where ecosystem management is embedded in a wider resilience package. Replication requires strong project governance and clear attribution of what is actually nature based. The main constraint is that analytical mixed projects can blur NbS contributions if ecosystem outcomes are not tracked distinctly from infrastructure outputs.</p>
References	<ul style="list-style-type: none"> • MWE SACRiAC page https://www.mwe.go.ug/projects/SACRIAC • AfDB appraisal report https://www.afdb.org/en/documents/uganda-strengthening-adaptive-capacity-and-resilience-communities-ugandas-watersheds-awoja-catchment-sacriac-project-appraisal-report • AfDB 2025 implementation report https://www.afdb.org/sites/default/files/documents/projects-and-operations/uganda_-_the_strengthening_of_adaptive_capacity_and_resilience_of_communities_in_awoja_catchment_of_uganda_sacriac_-_ipr_october_2025.pdf • MWE, AfDB Environmental and Social Management Framework (ESMF) https://www.afdb.org/sites/default/files/documents/environmental-and-social-assessments/esmf_-_strengthening_the_adaptive_capacity_and_resilience_of_communities_in_ugandas_watersheds_-_awoja_catchment_.pdf



17 Restoring and Conserving Degraded Fragile Ecosystems for Improved Livelihoods among Refugee and Host Communities






Implementation entity	A consortium including Uganda Biodiversity Fund, Wildlife Conservation Society, Nature Uganda, and Ecological Christian Organization	
Funding source	European Union	
Implementation period	2020–2024	
Project status	Completed	
Geographic area (region/district/catchment)	Refugee settlements in the Mid-Albertine Rift districts of Kamwenge, Kikube, and Kyegegwa; and West Nile region districts of Terego and Yumbe.	
Intended beneficiaries	Refugee and host communities whose livelihoods and ecosystem resilience have been strained by displacement, resource pressure, and climate change	
Social inclusion focus (if any)	<input type="radio"/> Women <input type="radio"/> Youth <input checked="" type="radio"/> Vulnerable groups Public materials do not provide a sufficiently detailed explicit GESI mechanism, although the project clearly targets socially vulnerable refugee and host populations.	
Societal challenges addressed by NbS	 Degradation of fragile ecosystems	 Climate-stressed livelihoods
	 Environmental pressures generated by high population concentration in refugee-hosting areas	
Ecosystem(s) targeted	<ul style="list-style-type: none"> • Forests • Wetlands • Riverine systems • Savannah woodlands and other fragile ecosystems in refugee-hosting landscapes 	
Ecosystem services enhanced	The intervention is designed to improve the flow of ecosystem services and products that support livelihoods, reduce land degradation, and strengthen resilience under climate and displacement pressure.	
Description of NbS	This is a restoration and livelihoods project in fragile landscapes where environmental degradation and social vulnerability reinforce each other. Project documents show a mix of habitat restoration, agroforestry, sustainable land management, and institutional capacity building intended to restore ecosystem function while improving community resilience.	



Risks addressed	Climate risks
	The project explicitly frames its purpose around improving livelihoods and ecosystem resilience to the impacts of refugees and climate change in refugee-hosting districts.
	Biodiversity risks
	The project addresses the degradation of forests, wetlands, woodlands, and other fragile habitats under intense human pressure.
Key results achieved or expected (ecosystem/livelihood/resilience outcome)	Through assisting in the restoration of degraded forests, woodlands, wetlands, and other vulnerable ecosystems, the initiative is projected to improve the flow of ecosystem services and products and increase the resilience of refugee-hosting communities and refugees to climate change.
Potential for scaling or replication	<p><input type="radio"/> High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> Unknown</p> <p>The scalable feature is the combined ecosystem-restoration and livelihood model for high-pressure humanitarian landscapes. Replication requires strong coordination between conservation and refugee-response actors and careful conflict sensitivity. The main constraint is that environmental recovery is difficult where demand for fuel, land, and water remains extremely high.</p>
References	<ul style="list-style-type: none"> WCS Uganda project page https://uganda.wcs.org/restoring-and-conserving-degraded-fragile-ecosystems.aspx Nature Uganda project page https://natureuganda.org/restoring-and-conserving-degraded-fragile-ecosystems-for-improved-community-livelihoods-among-refugee-and-host-communities-eu/



18 Kitagata River Catchment Restoration






Implementation entity	WWF Uganda, in partnership with the National Water and Sewerage Corporation and the MWE		
Funding source	World Bank-funded Integrated Water Management and Development Project		
Implementation period	2023–2025		
Project status	Ongoing		
Geographic area (region/district/catchment)	The project covers the Kitagata River catchment and associated wetland system in western Uganda, with restoration focused on water sources serving Bushenyi, Mitooma, Sheema, and surrounding areas.		
Intended beneficiaries	The intended beneficiaries are households living along the Kitagata catchment, downstream water users dependent on the protected sources, and local institutions responsible for source protection and catchment stewardship.		
Social inclusion focus (if any)	<input type="radio"/> Women <input type="radio"/> Youth <input type="radio"/> Vulnerable groups Publicly available launch material does not provide enough detail to verify a project-specific GESI integration, so no explicit GESI claim is made.		
Societal challenges addressed by NbS		Wetland degradation	 Declining source stability
		Unsustainable land use	 Pressure on water supplies
		Livelihood vulnerability linked to the deterioration of a strategic river catchment	
Ecosystem(s) targeted	The project targets the Kitagata wetland catchment, linked micro-catchments, riparian areas, and associated source-protection landscapes.		
Ecosystem services enhanced	The intervention is designed to strengthen water-source protection, catchment regulation, riparian stability, and the ecological functions needed to sustain reliable raw water supply.		
Description of NbS	The project uses catchment restoration, hotspot mapping, source protection, improved agricultural practices, and alternative livelihood measures to restore degraded wetland and micro-catchment areas supplying urban and peri-urban water systems. The operational logic is to recover hydrological function and reduce pressure on the wetland rather than rely only on downstream water-treatment responses.		








Risks addressed	Climate risks
	The project responds to hydrological instability and local climate stress by improving ecosystem capacity to regulate water flows and maintain source protection under variable rainfall and land-use pressure.
	Biodiversity risks
	The project addresses the degradation of wetland and riparian habitats that support ecological function within the Kitagata catchment.
Key results achieved or expected (ecosystem/livelihood/resilience outcome)	Public reporting confirms the restoration of a 20-km stretch on each side of the catchment and states that more than 900 households will be engaged in restoration, sustainable land-use practices, and alternative income-generating activities.
Potential for scaling or replication	<p><input type="radio"/> High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> Unknown</p> <p>The replicable feature is source protection-driven wetland and micro-catchment restoration tied directly to urban water security. Replication requires an institutional buy-in for source protection, clear hydrological prioritization, and community agreements that reduce encroachment pressure. The main constraint is that localized river-catchment restoration can be undermined if upstream land-use pressures remain unmanaged.</p>
References	<ul style="list-style-type: none"> • WWF Uganda project announcement https://www.wwfuganda.org/?45303/WWF-Partners-Set-to-Restore-20KM-Stretch-of-Wetland-Catchment • WWF Uganda launch announcement https://www.wwfuganda.org/?54882/WWF-Uganda-Partners-Launch-Restoration-of-Kitagata-River-Catchment



19 Awoja Ecosystem Restoration

Implementation entity	WWF Uganda and partner institutions working with communities in the Awoja landscape			
Funding source	The World Bank through the MWE			
Implementation period	The available implementation story indicates active delivery through the mid-2020s and describes the program as nearing the end of its current cycle.			
Project status	Completed			
Geographic area (region/district/catchment)	The project was implemented in the Awoja ecosystem in eastern Uganda, with publicly cited activity in the Bulambuli, Sironko, Bukedea, Kumi, and Katakwi districts.			
Intended beneficiaries	The intended beneficiaries are communities exposed to recurrent floods and landslides in the Awoja catchment, including households dependent on degraded wetlands, forests, and farmed landscapes for water, production, and income.			
Social inclusion focus (if any)	<input type="radio"/> Women <input type="radio"/> Youth <input type="radio"/> Vulnerable groups Publicly available success-story material does not provide enough detail to verify a project-specific GESI integration, so no explicit GESI claim is made.			
Societal challenges addressed by NbS		Recurrent flooding		Landslides and soil erosion
		Wetland encroachment		Forest loss
		Livelihood damage caused by declining ecosystem function in a climate-stressed catchment		
Ecosystem(s) targeted	The project targets wetlands, forests, riparian buffers, water sources, and associated catchment landscapes within the Awoja ecosystem.			
Ecosystem services enhanced	The intervention strengthens water regulation, erosion control, wetland function, vegetation cover, water-source protection, and livelihood-supporting ecosystem services.			
Description of NbS	The project uses community-led wetland restoration, riparian buffer restoration, tree nursery development, source protection, and alternative livelihoods such as beekeeping, improved cookstoves, and fish farming to rebuild catchment function and reduce pressure on restored ecosystems. The logic is explicitly a system-level restoration of the hydrology and vegetation structure of the catchment while shifting households away from degrading uses.			



Risks addressed	Climate risks	
	 Flooding	 Landslides and erosion
	 Hydrological instability in a catchment that has experienced repeated climate-related disaster impacts	
	Biodiversity risks	
	 Degradation of wetland and forest habitats	 Ecological decline associated with deforestation and encroachment
Key results achieved or expected (ecosystem/livelihood/resilience outcome)	WWF reporting states that 80% of degraded wetlands in the focal landscape are now restored, wetland restoration increased from 35% to 80% within 2 years, vegetation cover increased from 15% to 48%, more than 500,000 seedlings were supplied through six community nurseries in Bukedea and Katakwi, over UGX 180 million was generated from nursery-related income, and 20 water sources were protected.	
Potential for scaling or replication	<input type="radio"/> High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> Unknown The replicable feature is the combination of catchment restoration, community nurseries, source protection, and livelihood substitution in landscapes repeatedly affected by floods and landslides. Replication requires strong local organization, viable livelihood alternatives, and clear sub-catchment targeting. The main constraint is overlap and attribution where larger watershed programs are also active. Ecosystem results need to be tracked clearly so that this intervention’s contribution remains legible.	
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To learn more, visit <https://www.iisd.org/capa>.

Written by Susan Sekirime

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This inventory was prepared with reference to publicly available government, United Nations, and Green Climate Fund project documentation, as well as key reports on ecosystem-based adaptation in Uganda. Additional verification with the respective project offices was also done where available.

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