

Supporting locally led adaptation through nature

EXPERIENCES FROM LOCAL 2020-MAY 2023









MIN FOR

Belgium





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Cover photo: Community members in Pabré, Burkina Faso, dig beds for high-value crops to be planted as part of a new solar-powered irrigation system. Koudtanga Jean-Marie Sourwema, © UNCDF-LoCAL

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Acronyms and glossary

Acronyms

ACCAF	Assessing Climate Change Adaptation Framework
СОР	Conference of the Parties
CRVA	Climate Risk Vulnerability Assessment
ICCCAD	International Centre for Climate Change and Development
ICIMOD	International Centre for Integrated Mountain Development
LLA	locally led adaptation
LoCAL	Local Climate Adaptive Living Facility
NAP	national adaptation plan

NBS	nature-based solutions
NDC	nationally determined contribution
PBCRG	performance-based climate resilience grant
Sida	Swedish International Development Cooperation Agency
SNRM	sustainable natural resource management
UNCDF	United Nations Capital Development Fund
UNFCCC	United Nations Framework Convention on Climate Change

Glossary

Sustainable natural resource management. The sustainable utilization of major natural resources—such as land, water, air, minerals, forests, fisheries, and wild flora and fauna—that does not threaten the needs of future generations (Muralikrishna and Manickam, 2017).

Nature-based solutions. Actions through natural features to protect, sustainably manage, and restore natural and modified ecosystems that address societal challenges effectively and adaptively, simultaneously benefiting people and nature. Nature-based solutions address societal challenges through the protection, sustainable management, and restoration of both natural and modified ecosystems, benefiting both biodiversity and human well-being. These solutions are underpinned by benefits that flow from healthy ecosystems. They target major challenges like climate change, disaster risk reduction, food and water security, biodiversity loss and human health; and are critical to sustainable economic development (IUCN, 2020).

Ecosystem services. Outputs, conditions, or processes of natural systems that directly or indirectly benefit humans or enhance social welfare. Composed of four types, these essential services rendered by nature can hardly be substituted, if not at very high cost, when they are altered by human activities: supply services (e.g. food, fresh water and raw materials); regulatory services (e.g. climate and flood regulation, pollination); socio-cultural services (e.g. recreation, tourism, nature wellness); support services (e.g. species habitats, genetic diversity, biogeochemical cycles) (MEA, 2005).

Biodiversity. All the different kinds of life to be found in an area—animals, plants, fungi and microorganisms that make up the natural world. Each of these species and organisms work together in ecosystems, like an intricate web, to maintain balance and support life (adapted from <u>WWF webpage on What is biodiversity?</u>)

Introduction

limate change is a major challenge to ecosystems—and the ecosystem services on which humans rely—and to biodiversity. At the same time, biodiversity holds the key to the resilience and adaptive capacity of ecosystems in facing climate change. By restoring and safeguarding biodiversity through sustainable use of natural resources, the resilience of ecosystems can be enhanced and their ability to withstand climate change challenges improved (IPCC, 2022; Pörtner et al., 2021).

Several global initiatives recognize that the challenges of biodiversity decline, climate change and human well-being are closely connected. This recognition is reflected in the <u>Paris Agreement</u>, particularly Article 7; the <u>Kunming-Montreal Global Biodiversity</u> Framework; the Sendai Framework for Disaster Risk Reduction; and the United Nations Sustainable Development Goals—which all converge on solving the dual crises of climate change and biodiversity loss as essential to support human well-being.

Nature-based solutions (NBS) and sustainable natural resource management (SNRM) individually and in combination play a vital role in protecting and bolstering ecosystem services (figure 1). NBS have the potential to enhance the adaptive capacity of ecosystems by fostering biodiversity and increasing ecosystem resilience; through SNRM, these adaptation efforts are supported by ensuring the availability of essential resources. Moreover, these approaches have the potential to meet the goals of integrative and synergistic solutions to climate change,



Cash-for-work participants in The Gambia engage in reforestation efforts. © JSF Programme team, UNCDF-LoCAL



Figure 1.1: Key benefits yielded by applying nature-based solutions and sustainable natural resource management

and they are also designed to address multiple societal challenges through an interdisciplinary approach (Pörtner et al., 2021). Together, NBS and SNRM yield numerous environmental cobenefits, such as storing carbon to mitigate climate change and biodiversity conservation.

While specific definitions and practices vary, NBS and SNRM are in line with the Convention on Biological Diversity's criteria for ecosystembased adaptation:

(i) helps people adapt to climate change (ii) by an active use of biodiversity and ecosystem services, (iii) in the context of an overall adaptation strategy. (FEBA, 2017, p. 5)

The Local Climate Adaptive Living Facility (LoCAL) has been a strong facilitator of SNRM and NBS at the local level over the years. LoCAL is a standard, internationally recognized mechanism designed and managed by the United Nations Capital Development Fund (UNCDF). The LoCAL approach and country experience provide the basis for ISO 14093:2022, issued by the International Organization for Standardization (ISO). LoCAL was designed to help local governments in least developed countries and other vulnerable developing countries access the climate finance they need to respond and adapt to climate change in an effective way, through locally led adaptation. LoCAL combines performance-based climate resilience grants (PBCRGs), aimed to cover the additional costs of making local investments climate resilient, with technical and capacity-building support. The grants are channelled through existing government fiscal transfer systems that include minimum conditions, performance measures and a menu of eligible investments. Since its global launch in 2014, LoCAL has grown to a 38-country facility, mobilizing over \$200 million for locally led adaptation, benefiting more than 16 million people in some of the world's most climate vulnerable regions.

LoCAL can strengthen and localize an integrated, coordinated approach of climate change adaptation, SNRM action and NBS implementation. In recognition of this ability, successive LoCAL Board decisions (2019, 2021 and 2022) have encouraged LoCAL to promote NBS; the 2022 LoCAL board decision encourages the LoCAL Facility to engage with all the Rio Conventions considering the potential role of the LoCAL Mechanism for promoting Nature Based Solutions (NBS) in synergy across Rio Conventions (Convention on Biodiversity (CBD) and United Nations Convention to Combat Desertification (UNCCD) and invites the LoCAL Facility and countries to collaborate and share their experiences with the secretariat of the Conventions. This report provides a review of how LoCAL is integrating and advancing the agenda of SNRM and NBS in local climate action. The report was developed at the request of Sida in the context of support provided through the Last Mile Trust Fund of UNCDF. It complements the LoCAL annual report, which takes stock of LoCAL global progress each year; and the Last Mile Trust Fund report, which provides a summary of higherlevel results for LoCAL alongside other UNCDF initiatives.



Farmer and irrigated paddy fields in Bhutan Cédric Jancloes, © UNCDF-LoCAL

LoCAL activities

his section highlights LoCAL NBS and SNRM actions and initiatives over the 2020–May 2023 time frame; the information is presented in line with the four outputs of the LoCAL global Results and Resource Framework.

Output 1: Awareness and capacities

SENSITIZATION AND CAPACITY BUILDING

LoCAL provides support to national and local governments to increase awareness and build capacities to assess, plan and effectively respond to climate change through appropriate adaptation actions. Capacitybuilding support—in the form of training and institutional strengthening and sensitization of communities on climate change issues and risks—encourages participatory approaches to resilience building and reinforces bottom-up responses for locally led adaptation (LoCAL-UNCDF, 2023).

During the reporting period, several capacitybuilding activities were planned and/or implemented. These activities addressed both climate change adaptation and the sustainable use of natural resources in a synergistic manner. Highlights include the following.

 Together with implementing partner SOS Children Villages Ghana, UNCDF— as part of the Boosting Green Employment and Enterprise Opportunities in Ghana (GrEEn) Project—carried out training sessions for over 400 local farmers on the production of organic pesticides and of organic manure using farm waste and animal waste.

 In Mali, 35 farmers from 10 villages in the Mopti region (in the Dandougou-Fakala commune) completed training on composting and fertilization techniques for soil and crops.

DELIVERING CLIMATE DATA AND INFORMATION

LoCAL supports science-based decisionmaking using climate risk vulnerability assessments (CRVAs) to implement climate change adaptation effectively and sustainably. As implemented by LoCAL, CRVAs are meant to increase local-level understanding of risks and vulnerabilities across regions, inform the selection of target local governments, and support risk-informed planning as well as the identification of the adaptation options which can be invested in from year to year. These assessments provide an entry point to integrate SNRM and NBS.

In **Uganda**, LoCAL undertook a CRVA that provides information about current and future risks and the likely impacts of climate change across the country's districts to determine district-level exposure and vulnerability in line with key performance parameters including biodiversity areas such as wetland and forest cover (figure 2.1); as well as governance, knowledge and innovation, equity and social cohesion and ecosystem integrity.

Uganda's CRVA provides the necessary baseline to define adaptation and biodiversity actions and identify impactful areas of support for NBS, including ecosystem-based approaches relevant to the local context. Based on the CRVA, a preliminary set of adaptation options—including

b. Forest cover (% of land area)





a. Wetland cover (% of total area)

SOURCE: UNCDF, 2023, based on data from Uganda's Climate Change Downscaling Report.

NBS-were identified to guide the LoCAL investment selection process. These include:

- Bioengineering (vegetation plantation) for erosion protection around infrastructure
- Restoration of degraded water catchment areas through tree planting and agroforestry
- Ecosystem-based watershed management and rainwater harvesting
- Promotion of soil conservation and management at the catchment level

A similar CRVA report has been undertaken in Mali, providing a preliminary set of adaptation options supporting ecosystem-based approaches in the agricultural and health sectors, to guide the investment selection process. Options include the following:

- Applying organic fertilizers, changing planting dates and growing short-duration crop varieties
- Increasing soil health, improving water management (ensure water harvesting, storage and increase of efficiency), diversifying livelihoods, institutional collaboration/ networking and capacity building

- Soil and water conservation techniques, improved and diversified crop varieties and fertilizers
- Improving access to credit; reducing the distance to market and improving access to agricultural training

CRVAs have also been successfully undertaken in Ghana, Niger and São Tomé and Príncipe informing the types of investments local governments and communities undertake using LoCAL funding.

LoCAL undertook an integrated cost-benefit analysis and project finance evaluation in Niger. Undertaken in 2022, the analysis assessed the economic viability of implementing 11 specific climate adaptation investments. The resulting report covered various areas of investment, including agriculture, irrigation, forestry and infrastructure management; and considered different investment scenarios addressing the impact of climate change on land productivity. Several NBS-focused interventions were assessed, including the following:

• Promotion of agroforestry (for maize and cashew production)

- Implantation of solar-powered irrigation systems
- Cereal production using a half-moon water retention technique
- Promotion of "push-pull" companion planting techniques for resilient cropping
- Wetland restoration
- Urban and peri-urban forestry activities
- Land restoration through dune fixation techniques

The majority of interventions identified were considered effective and economically viable. With the exception of promoting agroforestry which in the case studied did not guarantee positive returns on investment—actions addressing land productivity were estimated to be profitable, regardless of the climate change scenario applied.

Output 2: Mainstreaming and investments

LoCAL has been exploring a more systematic approach to integrating SNRM and NBS in local climate adaptation for increased adaptation outcomes. LoCAL's performance-based climate resilience grant (PBCRG) system enables practices and incentives aimed at mainstreaming such efforts (LoCAL-UNCDF, 2023).

Investments made between January 2020 and May 2023 were assessed to determine the level of integration of NBS and SNRM in investments across the LoCAL portfolio. LoCAL's Assessing Climate Change Adaptation Framework (ACCAF) was used in this assessment. The ACCAF allows for reporting of investments and quantifying the extent to which LoCAL results have contributed to increased resilience through NBS and SNRM.



Half-moon water retention technique being implemented in Sokorbe, Niger; Nasser Alqatami, @ LoCAL-UNCDF

The assessment was completed through a desk review. Interventions were tagged as incorporating SNRM and/or NSB, respectively, based on application of the following questions:

- Is the investment looking at sustainably utilizing natural resources, such as protecting and/or enhancing land (e.g. agriculture, forestry, conservation), water, air, minerals, forests, fisheries, and wild flora and fauna in the target location?
- Does the investment include specific and explicit actions through natural features that protect and/or restore and/or sustainably manage natural and modified ecosystems, while addressing a adaptation/development challenges?

The review included a total of 1,062 climate change adaptation interventions in 11 countries: **Bangladesh**, **Benin**, **Bhutan**, **Cambodia**, **The Gambia**, **Ghana**, **Lesotho**, **Mali**, **Mozambique**, **Niger** and **Tanzania**. It was found that interventions in every country except Lesotho involved SNRM. In seven countries, SNRM interventions synergized with NBS (Bangladesh, Bhutan, Cambodia, The Gambia, Ghana, Mali and Niger). An overview of interventions by type is provided in figures 2.2 and 2.3; table 2.1 categorizes selected interventions by country, highlighting synergies achieved. Overall, a total of 377 adaptation interventions addressed SNRM; 88 of these included NBS synergies.

As the intervention tagging exercise revealed, a range of adaptation strategies can be leveraged to address climate change impacts through the conservation and rehabilitation of ecosystems. Moreover, SNRM supports sustainable livelihoods for communities that depend on natural resources for their survival. With LoCAL support, practices that balance resource use with conservation—such as those highlighted in table 2.1—can be promoted to enable communities to maintain their livelihoods while reducing their vulnerability to climate change impacts. Figure 2.2: LoCAL interventions by type, 2020—May 2023 (%)



Figure 2.3: Total number of SNRM and NBS interventions, 2020–May 2023

			289				88	
0	50	100	150	200	250	300	350	400

Output 3: Financing mechanism

INVESTMENT MENU

LoCAL supports countries in establishing and deploying PBCRG systems. Each country-based mechanism includes a set of minimum conditions which local governments have to meet each year to access the grants and performance measures which incentivize enhanced performance for increased resilience. Countries also use a menu of eligible investments. This menu defines areas of action that are appropriate for local government intervention-taking into account their mandates, CRVA findings, nationally determined contributions (NDCs) and national adaptation plan (NAPs). Investment menus can vary by region and ecosystem, suggesting possible local responses which take into account specific local circumstances.

In designing or updating the design of a LoCAL country-based mechanism, the definition of the minimum conditions, the performance measures and the menu of eligible investments

Intervention	SNRM-NBS synergies	Country (number of interventions)
Wildfire protection using green fire breaks and rain harvesting	Wildfires are a major cause of biodiversity loss, population declines of species adapted to grasslands, pastures and other extensive agricultural areas. Interventions implemented will protect nature and biodiversity.	• Niger (4) • Bhutan (1)
Bioengineering technologies to stabilize critical landslide areas	Soil bioengineering for slope stabilization and soil conservation uses living plant materials (thus promoting natural regeneration of native vegetation) to construct structures that perform an engineering function, such as retaining walls preventing landslides/erosion. This technique sustainably utilizes natural resources and enhances land conservation.	 Bhutan (4) Bangladesh (3) Ghana (1)
Planting of trees	Planting trees can help combat deforestation, restore degraded land and reduce the effects of floods. Increasing tree cover and improving ecosystem functions increases the capacity of forest reserves to sequestrate carbon in the face of changing climate.	 Bangladesh (6) Niger (4) The Gambia (2)
Promoting sustainable land use management	Providing training on producing organic fertilizers and organic pesticides to maintain soil and water quality helps reduce the environmental impacts of farming and safeguards surrounding ecosystems.	 Ghana (10) Bangladesh (6) Mali (3) Niger (1)

Table 2.1: Selected SNRM-NBS synergistic interventions used in LoCAL countries

can serve as entry points to reflect and address biodiversity and SNRM—including NBS—based on each country's individual circumstances. This report highlights two LoCAL countries—**Liberia** and **Burkina Faso**—to illustrate the role of the investment menu in addressing SNRM and NBS in local interventions.

In Liberia, the proposed investment menu is based on climate change-linked challenges including cyclones, floods, sea erosion, persistent droughts and heat waves, bush fires, deforestation, decrease in river flow and surface water volume, shortening of the average duration of vegetative growth periods and increased exposure of plants to water stress, reduction in the productive potential of ecosystems, and decreased arable land due to degradation. According to Liberia's NDC, the country is subject to impacts to which adaptation could offer new responses through reforestation, climate-smart agriculture, renewable energy development (thereby reducing pressure on natural resources) and modernization and implementation of traditional know-how. Liberia's investment

menu prioritizes and encourages the use of NBS for adaptation. Table 2.2 presents an extract of Liberia's investment menu illustrating this prioritization.

In **Burkina Faso**, the proposed investment menu similarly references its NDC. According to Burkina Faso's NDC, the country is subject to impacts adaptation could address through climate-smart agriculture, the development of renewable energies and implementation of traditional know-how. Thematic areas for interventions in Burkina Faso include the following:

- Sustainable agriculture adapted to climate change
- Agroforestry
- Water, sanitation and health
- Energy efficiency and renewable energy
- Bioclimatic infrastructure and construction

Table 2.3 presents an extract of Burkina Faso's investment menu, showing how issues related

Area of intervention	NAP- aligned	Action	Practical example	Advantages	Adaptation/ mitigation	NBS/EbA synergies
Energy	Yes	Promote and develop renewable energy	Solar energy collection area	With installation of solar panels on municipal land, country obtains energy for its infrastructure	Adaptation + mitigation	Yes
Fisheries	Yes	Support alternative fishery livelihoods	 Develop extension services needed to increase aquaculture production Provide aquaculture kits to smallholder fishers 	Reduce impact on marine fisheries	Adaptation + mitigation	
Fisheries	Yes	ldentify endangered and vulnerable fish species	Work with fishery communities to create multi-use conservation areas and/or marine protected areas	Improve ability of endangered species to survive impacts of climate change (link with coastal areas and biodiversity)	Adaptation + mitigation	Yes
Forestry	Yes	Sustainable management of natural forests and strengthening reforestation/ planting efforts	 Rationalize use of forest resources Promote state, municipal and private planting Promote alternative activities to exploitation of forest resources Secure boundaries of state/commune forest estate 	Increase carbon sequestration capacity of forest ecosystems through implementation of land use, land use change and forestry practices	Adaptation + mitigation	Yes
Forestry	Yes	Protection of forests and wetlands to rationalize resource exploitation	Preserve existing natural resources through active management at the local level by management committees and application of preservation/ protection techniques by local residents	Avoidance of degraded areas and conflicts	Adaptation + mitigation	Yes
Forestry	Yes	Dissemination of improved land management practices	Reforestation of degraded areas to provide grazing areas that also provide ecosystem services such as water retention, soil erosion reduction and flood protection		Adaptation + mitigation	Yes

Table 2.2: Selection from Liberia's	proposed investment menu
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NOTE: EbA = ecosystem-based adaptation. Menu has been lightly edited for consistency and clarity.

Area of intervention	NDC- aligned	Action	Practical example	Advantages	Adaptation/ mitigation
Agriculture adapted to climate change	Yes	Testing of cultural practices adapted to climate change	 Off-season crops Seeds that are resistant, short cycle and less water-intensive Implementation of these measures will affect source categories such as rice fields, agricultural soils, burning of agricultural residues, and prescribed burning of savannahs 	Increase productivity by using genotypes already adapted to local conditions, often eclipsed by the rise of commercial varieties that allow more productivity in good conditions, but lack this adaptation/resilience	Adaptation
Climate- smart forestry	Yes	Sustainable management of natural forests and strengthening of reforestation/ planting efforts	 Rationalize exploitation of forest resources Promote state, communal and private planting Promote alternative activities to exploitation of forest resources Secure boundaries of forest domains of the state/commune 	Increase carbon sequestration capacity of forest ecosystems through implementation of land use, land use change and forestry practices	Adaptation + mitigation
Climate- smart forestry	Yes	Protection of forests and wetlands to rationalize resource use	Preserve existing natural resources through active management at the local level by management committees and application of preservation/protection techniques by local residents	Avoidance of degraded areas and conflicts	Adaptation + mitigation
Climate- smart forestry	Yes	Dissemination of improved land management practices	Reforestation of degraded areas to provide grazing areas that also provide ecosystem services such as water retention, reduced soil erosion and flood protection		Adaptation + mitigation
Agroforestry	Yes	Grazing area management and ecosystem- based adaptation	 Plant trees for fodder and ecosystem protection Establish grazing capacity of livestock in a territory to avoid overgrazing Provide physical protection of trees against livestock 	Uncontrolled grazing has highly negative effects on landscape and depletes it. A specific terrain can support a certain amount of livestock before it degrades. This amount of livestock varies depending on the type of terrain, weather conditions and time of year. Respecting this carrying capacity makes for the difference between having productive and degraded land. This capacity changes with the effects of climate change. Creating a mosaic landscape and interspersing fodder trees increases the productivity and resilience of the agricultural system, making it less vulnerable to climate change.	Adaptation + mitigation

Table 2.3: Selection from Burkina Faso's proposed investment menu

to biodiversity, SNRM and NBS are embedded in this investment menu.

PARTNERSHIPS

LoCAL has been exploring means and methods of leveraging the PBCRG and other LoCAL tools for greater adoption of SNRM and NBS throughout its portfolio. These efforts are reflected in dialogues with donor partners and LoCAL member countries.

Complementing support at the global level from Sida addressing SNRM and NBS, UNCDF has signed an agreement with the Government of Denmark to support LoCAL in Africa. The \$14.4 million (2022–2026) Danish support is primarily aimed at climate-specific and climatesmart actions and at climate change adaptation capacity and awareness building. It will focus on access to water, climate-smart agriculture and NBS, ensuring that interventions are implemented in harmony with the protection of valuable natural resources and ecosystems.

In South Asia, LoCAL has developed a partnership with the International Centre for Integrated Mountain Development (ICIMOD). UNCDF has signed a memorandum of understanding with ICIMOD for technical assistance and support targeting Hindu Kush Himalaya regional member countries on climate change adaptation and mountain development, particularly at the local level. ICIMOD focuses on sustaining the Hindu Kush Himalaya as an important biodiversity hotspot, significant ecological buffer zone and source of resources and services for people living there and in the lowlands. ICIMOD and UNCDF are planning coordinated actions on adaptation to the impacts of climate change in the highly vulnerable region. An initial action is to support first **Bangladesh**, and then other countries, in accessing the Adaptation Fund.

At the country level, UNCDF has been working closely with the Government of Uganda. The

aim here is to advance the SNRM-NBS agenda and develop a LoCAL programme which seeks to contribute to increasing the resilience of ecosystems, communities and local economies in target districts of Uganda (e.g. the Elgon and Kigezi subregions, and the Rwenzori region). The effort will support NDC- and NAP-aligned locally led adaptation and biodiversity protection actions in the country. Forestry will be addressed as a key ecosystem for climate change and biodiversity in Uganda.

Output 4: Outreach and learning

LoCAL serves as a unique mechanism to support and promote adaptation efforts at the local level to enhance and protect ecosystem services and community livelihoods. This subsection highlights outreach and awareness-raising activities focused on SNRM and NBS undertaken from January 2020 to May 2023.

As part of its outreach and learning agenda, LoCAL makes regular submissions to United Nations Framework Convention on Climate Change (UNFCCC) bodies. For example, UNCDF-LoCAL submitted a case study summary to inform the 2021 annual forum on NBS conducted by the UNFCCC's Standing Committee on Finance. The submission (included in the <u>annex</u> to this report) proposed LoCAL's PBCRG as a viable and proven financial instrument to implement NBS.

LoCAL and its member countries engaged at COP26, held in Glasgow 2021; and COP27, held in Sharm el-Sheikh in 2022. LoCAL organized/ co-organized side events, bringing together representatives to share their experiences on locally led adaptation in synergies with biodiversity conservation and SNRM.

LoCAL partnered with the International Centre for Climate Change and Development (ICCCAD) at COP26 and COP27 to host the Locally Led Adaptation (LLA) pavilion. The LLA constituency



GrEEn training promoting sustainable farming in Ghana. Abdul Rahman Ashraf, © UNCDF-LoCAL

hosted 50 events at the pavilion, as well as various LoCAL-specific events. Many of these LLA events highlighted the importance of local and traditional knowledge and of addressing local adaptation together with nature; they include the following:

- Can Renewable Energy Be the Catalyst of Community-Owned Sustainable Agriculture? (Practical Action)
- Locally Led Adaptation with Scotland's Young People's Forest (Young Scot and NatureScot)
- Putting Nature at the Heart of the Principles for Locally Led Adaptation: A Celebration of Endorsers (BirdLife International, Fauna and Flora International, IIED)
- Blending People's Participation and Nature-Based Approaches for Enhancing Community Resilience (ICCCAD, Center for Natural Resources Studies, Center for Climate

Justice–Bangladesh; funding support from Climate Justice Resilience Fund)

 Fight against Salinity: How Locally Led Actions for Drinking Water and Mangroves Restoration Are Building Resilience (WaterAid Bangladesh, FRIENDSHIP)

At **COP 26**, the Government of **Niger** and LoCAL organized an event focused on LoCAL as a financing mechanism for funding Niger's NAP. The event highlighted Niger's directions for long-term adaptation planning, with increased resilience of the population and ecosystems and the promotion of SNRM among its key priorities.

LoCAL also hosted an event with the Asian Development Bank that touched on working with community groups to build on local knowledge and traditional practices that work with nature. At **COP 27**, LoCAL organized an event on the Costs and Benefits of Nature-Based Solutions for Local Adaptation. The event brought together representatives from academia, development organizations and subnational governments to discuss the economies of NBS for adaptation. It showcased approaches, case studies and evidence on how least developed and developing countries can harness nature to drive the resilience of local communities.

LoCAL supported the UNFCCC official event on Climate Resilience in the Food System: Why Act Now? by facilitating the participation of the Minister of Karamoja Affairs. Karamoja is a region of **Uganda** whose ecosystems and livelihoods are highly affected by climate change. The event highlighted the interlinkages between climate change and food systems, and sought to raise awareness of nature's ability to provide viable solutions to reduce the anticipated negative effects of climate change on food systems.

On the sidelines of the 58th session of the Subsidiary Bodies to the UNFCCC in Bonn in June 2023, LoCAL made a presentation on its work at a workshop sponsored by the Food and Agriculture Organization of the United Nations and the Center for International Forestry Research–World Agroforestry on Forests and Trees for Adaptation. The workshop brought together diverse stakeholders to discuss opportunities for adaptation through and for forests and trees. They also explored avenues to increase adaptation finance to enhance the climate-biodiversity linkages.

Lessons learned

number of lessons can be derived from LoCAL experience over the years and from the SNRM-NBS tagging exercise described in <u>section 2</u>.

Climate change poses significant risks and uncertainties, making it essential to rely on robust evidence to inform decision-making processes. By gathering and analysing relevant data through CRVAs, stakeholders can gain a deeper understanding of the specific risks and vulnerabilities faced by their ecosystems and livelihoods and craft adaptation options accordingly. By utilizing the findings from CRVAs, decision makers can allocate resources more efficiently and effectively, ensuring that adaptation efforts are directed towards areas of specific need. Integrating CRVAs with NBS and SNRM, as undertaken in Mali and Uganda, is an important tool in planning for a sustainable and resilient future.

Indigenous communities often possess extensive SNRM knowledge and practices. Incorporating such traditional knowledge into adaptation strategies—as in Niger with its application of the ancient half-moon technique-can enhance the effectiveness and sustainability of adaptation efforts, while respecting cultural diversity and traditional ways of life. The cost-benefit analysis undertaken for Niger showed that the technique was indeed effective and economically viable. Across LoCAL countries, traditional and local knowledge can advance adaptation (i) through integration in the investment menu and (ii) by incentivizing the active engagement of local communities and traditional leaders in the PBCRG planning, budgeting and execution cycle and through the of performance measures.

Natural ecosystems offer a range of adaptation strategies that can be leveraged to address climate change impacts. For example, water catchments provide a natural buffer against flooding. With LoCAL support, conservation and rehabilitation interventions have been implemented in Bhutan and Tanzania and are planned in Uganda to manage soil erosion and excess water runoff, among other issues. In The Gambia and Niger, efforts to reduce deforestation and promote reforestation have been initiated; this effort not only provides a natural buffer against flooding and landslides, but also contributes to climate change mitigation.

By promoting practices that balance resource use with conservation—as with LoCALsupported interventions in Benin, Mali and Niger—communities can maintain their livelihoods while reducing their vulnerability to climate change impacts. The menu of eligible investments offers a clear entry point to advance SNRM and NBS by integrating responses that address those issues, combined with awareness raising and capacity building.

LoCAL is exploring leveraging its PBCRG system to further promote the above-noted approaches throughout its portfolio. The tagging exercise revealed that the LoCAL portfolio has good integration of SNRM and NBS overall, but more sensitization and capacity building across the LoCAL countries are needed to continue to advance the agenda.

Way forward

o advance LoCAL's agenda of sustainable natural resource management and nature-based solutions for climate change adaptation, several efforts are envisaged:

- Continue to support countries and integrate SNRM and NBS in existing programmes and in new LoCAL countries where the design is ongoing and the pilot is about to start.
- Enhance the use of CRVA that takes ecological vulnerabilities as well as costbenefit analysis into account to promote a better understanding of NBS.
- Integrate SNRM and NBS in LoCAL investment menus aligned to NDCs and NAPs; this could include initiatives aimed at ecosystem restoration, biodiversity conservation, ecosystem-based adaptation and area-based conservation.
- Integrate NBS and biodiversity into LoCAL monitoring and evaluation and in the use of

the ACCAF. The tagging exercise discussed in <u>section 2</u> will be further piloted and introduced to strengthen monitoring and evaluation and reporting, as well as facilitate learning across and between countries. Case studies will be developed to qualitatively complement these efforts.

 Foster collaboration and partnerships to accelerate efforts on this agenda, share knowledge and expertise, and promote collective action. Partnerships will be further operationalized and developed; and communications and outreach, in the form of articles and events at selected climate conferences, will be implemented.

Through these efforts, LoCAL aims to further advance its agenda of SNRM and NBS for climate change adaptation, fostering resilient ecosystems and communities that can withstand the impacts of climate change.

Annex

his annex consists of LoCAL's 2020 submission on behalf of UNCDF to the call from the UNFCCC's Standing Committee on Finance (SCF) for submissions

for the SCF Forum on Finance for Nature-based Solutions. UNCDF-LoCAL's submission can also be found online in the UNFCCC <u>Information</u> <u>Repository</u>.

31 July 2020

The Local Climate Adaptive Living (LoCAL) Facility of the UN Capital Development Fund (UNCDF) welcomes the opportunity to submit its view on the call by the SCF for the next forum on the financing nature-based solutions. The LoCAL is pleased to share its views and experience on its projects on the nature-based solutions through the use of performance-based climate resilient grants as case studies to inform the next SCF Forum. The submission also proposes the LoCAL's performance-based climate resilience grants (PBCRGs) as financial instrument to implement nature based solutions under the Sub- theme of the forum: *Paragraph 2 (e) NBS as a driver of the NDCs and NAPs, and Paragraph 3 (d) Facilitating access to climate finance for adaptation and mitigation actions and measures that utilise NBS.*

The UNCDF makes public and private finance work for the poor in the world's 47 least developed countries. With its capital mandate and instruments, the UNCDF offers finance models that unlock public and private resources, especially at the domestic level, to reduce poverty and support local economic development.

LoCAL was established in 2011 to promote climate change-resilient communities and local economies by establishing a standard and internationally recognized country-based mechanism to channel climate finance to local government authorities for building verifiable climate resilience. LoCAL aims to integrate climate change adaptation into local governments' planning and budgeting systems, in a participatory and gender-sensitive manner, increase awareness of and response to climate change at the local level, and increase the amount of finance available to local governments for climate change adaptation.

LoCAL combines performance-based climate resilience grants (PBCRGs), aimed to cover the additional costs of making local development climate resilient, with capacity building and technical assistance to local governments to help them better assess climate risks and vulnerabilities and integrate climate change adaptation into their planning and budgeting processes – thus improving preparedness for, awareness of and resilience to climate change.



LoCAL is overseen by the LoCAL Board, which comprises representatives of governments participating in the global mechanism and development partners. The Board is co-chaired by the Chairs of the Least Developed Countries Group of the United Nations and Chair of LDCs group of the UNFCCC.

LoCAL has been supporting 293 local governments representing over 11 million people, across in 14 countries (Bangladesh, Benin, Bhutan, Cambodia, The Gambia, Ghana, Lao PDR, Lesotho, Mali, Mozambique, Nepal, Niger, Tanzania and Tuvalu), with 11 more countries having formally expressed interest to benefit from the global mechanism (Burkina Faso, Côte d'Ivoire, Liberia, Malawi, Pakistan, Palestine, São Tomé and Príncipe, Senegal, Solomon Islands, Sudan and Uganda).

Since inception, LoCAL has mobilized a total of \$94.2 million and financed 1,276 climate change adaptation interventions.





I. LoCAL for the implementation of the Nationally Determined Contributions (NDCs) of the Paris Agreement

The Paris Agreement recognized that adaptation is a global challenge faced by all with local, subnational, national and regional dimensions and emphasized the urgent need to support countries that are particularly vulnerable to adverse effects of climate change (Article7). Therefore, LoCAL focuses primarily on the least developed countries (LDCs) which are among the most exposed to the impacts of climate change.

LoCAL as an internationally recognized country- based mechanism channels climate finance to local government authorities in developing countries, in particular LDCs to support adaptation efforts. It aims to contribute to the achievement of the Paris Agreement through the local level implementation.

LoCAL also contributes to achievement of the Sustainable Development Goals (SDGs) particularly SDG 1, ending poverty; SDG 11, sustainable cities and communities; and SDG 13, combating climate change and its impacts with concrete action at the local level.

Over the years, the LoCAL Facility supported local governments to increase local resilience to climate impacts in alignment with their mandates, the Nationally Determined Contributions (NDCs), National Adaptation Plans (NAPs), local adaptation plans and the United Nations Framework Convention on Climate Change (UNFCCC).

In April 2019, the LoCAL guidelines were endorsed as <u>supplementary material to the NAP</u> <u>technical guidelines</u> by the LDC Expert Group at the UNFCCC. This publication will help LDCs and developing countries create intentional and strategic linkages between country national adaptation plans and nationally determined contributions at the subnational level in a coordinated and standard manner – bringing a financing dimension to the vertical integration of the NAP and NDC processes.



II. LoCAL's performance-based climate resilience grants (PBCRGs) for financing nature-based solutions (NBS)

The LoCAL global mechanism combines performance-based climate resilience grants (PBCRGs) - which ensure programming and verification of climate change expenditures at the local level while offering strong incentives for performance improvements in enhanced resilience - with technical and capacity-building support and monitoring and quality assurance functions.

LoCAL applies principles of fiscal decentralization and effective local planning and public financial management to climate change. It combines performance-based climate resilience grants (PBCRG), which ensure programming and verification of climate change expenditures at the local level, with technical and capacity-building support.

PBCRG provides a financial top-up to cover the additional costs of making investments climate resilient and are channelled through existing government fiscal transfer systems (rather than parallel or ad hoc structures). International climate finance is channelled through national treasuries — right down to the local level, with special accounts ensuring traceability and additionality.

PBCRGs are channelled through existing fiscal transfer mechanisms in the countries where LoCAL is involved, thereby strengthening national appropriation and accountability. By being disbursed as part of a local government's regular budget envelope, PBCRGs can finance the adaptation element of larger projects, allowing for holistic responses to climate change. In general, the grants are a 10 to 20 % 'top up' of regular capital grant allocations. To ensure accountability and relevance, PBCRGs include minimum conditions, performance measures and a menu of eligible investments aligned with NAPs and NDCs. For local governments to be eligible for and to access the grants, they must meet and remain in compliance with a set of minimum conditions which ensure that a certain level of capacity is in place to handle the funds and that they are adequately used year to year.

Performance measures are applied through an annual assessment to incentivize local governments to meet climate change adaptation objectives. The measures selected are informed by local climate risk assessments and a menu of eligible investments (itself informed by national climate risk assessments). The performance measures are used to adjust the level of funding made available to the local government year to year as well as inform the technical and capacity-building support needed. Where local governments are found not to have met the minimum conditions, actions are undertaken to help address the identified gaps and lags.



Assessing Climate Change Adaptation Framework (ACCAF)

The performance-based climate resilience grants (PBCRGs) as an instrument to implement nature-based solution also benefits from its own M&E framework, to review the effectiveness of the performance-based grant mechanism in producing the adaptation investments.

The ACCAF comprises a guidance document and a complementary data tracker. The data tracker that accompanies the ACCAF manual enables country programs to report their achievements in a simple, straightforward way that the facility can directly use. The data tracker is integrated into LoCAL's existing M&E reporting systems to minimize country program's additional data collection and management burden, and it enables the Facility to gather information presented in a consistent manner. The ACCAF also proposes a series of periodic (every three years) adaptation- oriented evaluation of the country programme. The ACCAF also introduced a standard set of primary output indicators. The output indicators measure activities for example, meters of irrigation channel repaired.



III. LoCAL Projects: Case studies for NBS

The following two case studies are example of among the 14 LoCAL countries. The case studies identified below could be considered as a nature-based solution project provide background information, major achievements, implemented and planned adaptation interventions and lessons learned.

Ghana

Achievements	 A technical assistance mission commissioned by UNCDF in partnership with the Korea Environment Institute, was organized in 2016 to review climate information (risks, vulnerability and adaptation assessments) to inform adaptation planning and mainstreaming into local development planning and make recommendations to strengthen local capacities. This resulted in the 2019 preparation of a LoCAL country report on climate risk and vulnerability assessment which incorporates the local dimension, identifying and mapping climate risk, exposure and vulnerability hotspots at subnational and local/community levels and prioritize climate change adaptation actions and investments based on quantified and evidence-based analysis, and may serve to update nationally determined contributions and define main adaptation targets and actions in synergy with boosting and accelerating SDGs achievement, particularly SDG 13.
	 LoCAL supported the efforts of the Fiscal Decentralization Unit of the Ministry of Finance in fine-tuning its District Functional Organizational Assessment Tool (FOAT) of the DDF; this has been renamed the District Assembly Performance Assessment Tool (DPAT) and is being mainstreamed into national monitoring and evaluation systems. UNCDF commissioned two technical assistance missions in 2017 and 2018 to design LoCAL Phase II in a consultative manner. The performance assessment system under Phase II, particularly the minimum conditions, has been further aligned with the FOAT and renamed the District Assemblies Common Fund Responsiveness Factor Grant. The design note for Phase II was endorsed by the partners and the Government of Ghana, and the country is ready to move to Phase II.
	• This approach led to the inclusion of climate indicators in the country's performance-based grant system of the decentralization sector as well as to the inclusion of climate change considerations in the forthcoming National Decentralization Policy and National Decentralization Strategy (2020-2024).
	 UNCDF, in partnership with SNV, a Netherlands development agency, has secured funding from the European Union Trust Fund for Africa to implement the Boosting Green Employment and Enterprise Opportunities in Ghana (GrEEn) Programme beginning in 2020. The GrEEn Programme will be LoCAL Phase II, building on the experiences of LoCAL-Ghana Phase II. It will deploy PBCRGs with a focus on creating jobs locally – through cash-for-work programmes and procurement to local micro, small and medium-sized enterprises (MSMEs) –



	while promoting climate resilience. Under the GrEEn Programme, MMDAs will receive funding under the DACF RFG system based on the minimum conditions already in the DPAT. GrEEn will make use of existing performance measures and complement them with targeted climate-related performance measures and cash-for-work indicators.
Adaptation	Since inception, 16 climate change adaptation investments, benefiting
measures and investments:	PBCRG cycle; another 9 are planned to be implemented in 2020. These interventions included the following:
<u>Nature Based</u> <u>Solution</u> <u>Project</u>	 Reforestation/afforestation, such as reforestation of degraded reserve forest land along the Akrum and Osubin Rivers and planting of different tree species along streams Roads or schools and public gardens as a mean of protecting against soil erosion and flooding in the Fanteakwa North DistrictSensitization activities on climate change and specific trainings on bush fire prevention and early warning systems were held in two of the three MMDAs, reaching approximately 2,200 people.
Lessons learned	 It is critical to design the flow of funds and the PBCRG operational mechanism to fully align with the existing system of intergovernmental transfers and to follow the regular public expenditure management cycle. In this way, funds are fully fungible with other resources available locally. In Ghana, PBCRGs are fully aligned and linked with the former DDF and its FOAT. Because the PBCRG is now to be integrated into the District Assemblies Common Fund, it is critical to ensure that LoCAL is aligned and mainstreamed with the new fund and with the Performance Assessment Framework for the Decentralization Sector Wide Approach.
Way forward	 A country report on climate risk assessments recently undertaken in Ghana with Korea Environment Institute support is expected to help participating local government authorities strengthen their adaptation planning with a view towards prioritizing interventions yielding greater impacts in terms of climate change adaptation and increased resilience of target communities. Transfer of additional funds to the MMDAs will take place in the first half of 2020 to 6 MMDAs to commence investments under LoCAL Phase II. The LoCAL component of the GrEEn Programme will be launched in the regions, and the mechanism will be gradually rolled out in a total of 13 MMDAs by 2023. In close collaboration with the MMDAs, LoCAL will assist local governments in developing and implementing green and climate resilientlocal investments which foster the employability for returnees, youth and women through cash for work and procurement to local MSMEs. National roll-out is envisaged from 2024 onwards (Phase III); preparing for this is an integral part of Phase II. Policy advice, readiness support, support for accreditation and adjustment to project design as needed are foreseen to ensure that the country can transition to Phase III and initiate national roll-out after the four-year GrEEN Programme ends.
More information	https://www.uncdf.org/local/ghana



Achievements	 Since LoCAL inception in 2016, the mechanism has been piloted in two communes in the Dosso region, Sokorbé (Department of Loga) and Dogon Kyria (Department of Dogondoutchi), benefitting a population of 101,569. Between 2016 and 2019, three PBCRG cycles have been implemented and performances of communes evaluated, showing progressive improvements in terms of climate change adaptation mainstreaming in planning and budgeting systems, project cycle management and public financial management, as result of capacity building efforts with relevant local stakeholders. Niger has begun piloting localized climate risk assessments and established systems to enable local governments to collect, archive and analyse meteorological, climate and socioeconomic data and to undertake local climate projections to inform their planning. In collaboration with the NDC Partnership, LoCAL is complementing and expanding this work by developing a Country Report on Climate Risk and Vulnerability, which through a climate downscaling model and vulnerability analysis will provide localized climate risk maps at district and commune levels. The three-year pilot phase paved the way for LoCAL Phase II to fully integrate the PBCRG model into the treasury's fiscal transfer system. LoCAL Phase II design was finalized in 2019, in consultation with Government's counterparts, sub-national stakeholders and development partners. Through NDC Partnership and the Italian Fund for Migration, LoCAL-Niger secured funding for implementing its Phase II in 2020. Through this support, LoCAL is bringing the total number of target communes to 9 in the regions of Dosso, Zinder and Tahoua. Niger is one of the West African countries (along with Burkina Faso, Côte d'Ivoire and Mali) included in the joint UNCDF-LoCAL-West African Development Bank (BOAD) funding proposal aims to help identified local authorities increase their access to funding for adaptation through a combination of dedicated grants and technical assistance thr
Adaptation measures and investments [:] <u>Nature Based</u> <u>Solution</u> <u>Projects</u>	 Over the three-year pilot phase, LoCAL-Niger financed 41 adaptation investments, directly benefiting more than 42,000 people in the two communes. In Sokorbé, 95 hectares of degraded land was rehabilitated using semi-circular bunds to combat erosion. This technique allowed for greater soil infiltration and for the repurposing of arid areas. The site was sown with locally available herbaceous species and planted with 28,533 trees. These activities were implemented through cash for work schemes, benefitting local communities. A management committee was established to protect and maintain the site and ensure equitable benefits for beneficiaries. Similarly, in Dogon Kiria, 60 hectares of degraded land was rehabilitated using the same technique and replanted by local communities under cash for work schemes.



	 Two 14-tonne millet banks were built in two villages and 1.5 tonnes of improved seed was delivered to 13 villages suffering from food shortages, thus improving the availability and accessibility of millet during the lean season. Some 703 households, including 33 female-headed households, were supported. 14 wells were excavated and/or rehabilitated, improving access to safe drinking water and reducing water collection time considerably. Capacity-building activities targeting elected leaders, community agents and civil society were conducted: (i) training and equipping 50 pest control volunteers, (ii) establishing five community workers in climate change–related issues.
Lessons learned	 As the impact of climate change is local and affects multiple sectors, it is important to allow local authorities to choose the priority activities to be funded by LoCAL grants on a consultative basis. A local adaptation action programme, informed by a climate risk assessment, must therefore follow on from the list of indicative investments developed when the programme was first established. It is essential to design a funding channel for LoCAL grants which is fully aligned with the existing system of inter-governmental transfers. Funds must be fully integrated with other resources available locally. An intermediate funding channel has been established in Niger for the first two years. LoCAL is suing the National Treasury System for its Phase II. Capacity building provided to LoCAL pilot communes enabled them to plan and implement climate resilience actions from their annual investment plans and ensure their sustainability, thus demonstrating the importance of capacity-building support to ensure impactful and effective climate change adaptation measures at local level.
Way forward	 The fourth cycle of PBCRGs for 2020 benefitting nine communes is under way. Work around climate risk assessments will be further developed in 2020 to ensure adequate inclusion of climate change considerations in national and sub-national planning. In collaboration with the NDC Partnership, LoCAL is producing a Country Report on Climate Risk and Vulnerability, which will help prioritizing climate change adaptation actions and investments based on quantified and science-based analysis and updating nationally determined contributions, while defining main adaptation targets and actions in synergy with boosting and accelerating Sustainable Development Goal (SDG) achievement, particularly of SDG 13. LoCAL will continue pursuing resource mobilization efforts with the GCF through the funding proposal submitted, while exploring additional sources of climate finance to support the expansion of its Phase II. LoCAL may provide technical assistance support to Niger's NIE to pursue their accreditation efforts to the GCF and pave the way for more stable sources of climate finance to the country to realize its adaptation objectives.
More information	https://www.uncdf.org/local/niger



IV. Potential institution and event to partner with, in the organization of the Forum

The LoCAL Facility wishes to partner with the SCF under the Sub- theme of the forum: Paragraph 2 (e) NBS as a driver of the NDCs and NAPs, and Paragraph 3 (d) Facilitating access to climate finance for adaptation and mitigation actions and measures that utilise NBS. The LoCAL can share its views and experience on its projects on the nature-based solutions through the use of performance-based climate resilient grants, and country experiences.

The LoCAL facility of the UNCDF welcomes other opportunities to work together with the SCF and stands ready to share its experiences further and provide detailed information.

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UNCDF (United Nations Capital Development Fund) (2023). Uganda: Climate Risk and Vulnerability Assessment for Subnational Adaptation. Kampala: UNCDF-LoCAL. The impact of climate change is acutely experienced at the local level—where we work, go to school and live our lives. In the world's most climate-vulnerable nations, adaptation is critical and, all too often, under-resourced. The United Nations Capital Development Fund (UNCDF) designed the LOCAL CLIMATE ADAPTIVE LIVING FACILITY (LoCAL) in 2011 as a way to channel finance to local government authorities and their communities to cover the additional costs of mitigating and adapting to the impacts of climate change—thereby minimizing and addressing potential loss and damage. Managed by UNCDF, the Facility supports LoCAL country-owned mechanisms for climate finance delivery that have realized adaptation solutions for more than 16 million people around the world. More than 30 countries across Africa, Asia, the Caribbean and the Pacific have engaged with LoCAL to deliver resilience-building solutions for climate-vulnerable populations. The LoCAL approach provides the basis for international standard ISO 14093:2022, which contributes to Sustainable Development Goals 1, 11 and 13.

The **UNITED NATIONS CAPITAL DEVELOPMENT FUND (UNCDF)** is the United Nations' flagship catalytic financing entity for the world's 46 Least Developed Countries (LDCs). With its unique capital mandate and focus on the LDCs, UNCDF works to invest and catalyse capital to support these countries in achieving the sustainable growth and inclusiveness envisioned by the 2030 Agenda for Sustainable Development and the Doha Programme of Action for the least developed countries, 2022–2031.

UNCDF builds partnerships with other UN organizations, as well as private and public sector actors, to achieve greater impact in development; specifically by unlocking additional resources and strengthening financing mechanisms and systems contributing to transformation pathways, focusing on such development themes as green economy, digitalization, urbanization, inclusive economies, gender equality and women's economic empowerment.

A hybrid development finance institution and development agency, UNCDF uses a combination of capital instruments (deployment, financial & business advisory and catalysation) and development instruments (technical assistance, capacity development, policy advice, advocacy, thought leadership, and market analysis and scoping) which are applied across five priority areas (inclusive digital economies, local transformative finance, women's economic empowerment, climate, energy & biodiversity finance, and sustainable food systems finance).

