ND-GAIN Adaptation Brief

ND-GAIN
Notre Dame Global Adaptation Initiative

Somalia //
Sub-Saharan Africa

Enhancing Climate Resilience for Vulnerable Communities and Ecosystems in Somalia/ Least Developed Countries Fund 1 (LCDF 1)



UNIVERSITY OF NOTRE DAME

Country Information

Population

18.1 Million

(United Nations World Population Prospects, 2022)

UNFCCC National Adaptation Plan

Yes, 2022

Intervention Information

$64 Million (USD)

Cost

2014-2019

Timeline

Inequality adjusted HDI

(Scale of 0-1)



(UNDP, 2023)

ND-GAIN Vulnerability Score

(Scale of 0-1)



(ND-GAIN, 2023)

Rationale for Selection

Cases were selected for review based on general screening criteria, including timeframe of intervention, location of implementation, and evidence-based outcomes, as available. The project stood out for its adaptability and strategic allocation of funds, ensuring wider outreach and a reduction in financial costs. The increase in total available project resources by 19% is a testament to the commitment and additional support from stakeholders, particularly UNDP, ensuring the project's objectives were not just met, but exceeded, offering a more sustainable future for the communities it served.

Outcome Area(s)

Water Security, Livelihoods, Government Capacity-Building

Funding Sources

United Nations Development Program (UNDP), Global Environment Facility (GEF), Least Developed Countries Fund (LCDF)

Implementation

Federal Republic of Somalia, Ministry of National Resources (Somalia), United Nations Development Program, Global Environment Facility (GEF), Ministry of Environment and Rural Development (Somaliand), Ministry of Environment, Wildlife and Tourism (Puntland), Humanitarian AID and Disaster Management Agency (HADMA), and National Environment Research and Disasters

Context of Intervention

Somalia, a least developing country in the Horn of Africa, faces severe vulnerability to climate change, exacerbated by its largely arid and semi-arid terrain.[2] More than 70% of the population depends on climate-sensitive sectors like agriculture, livestock, and fisheries, heightening susceptibility to climate risks.[1] Amid ongoing conflict and reconstruction of state institutions, climatic disasters further strain investment in crucial sectors, aggravating poverty and endangering sustainable governance.[3]

Persistent droughts have heightened water and pasture shortages, intensifying the burden on women and youth and escalating conflicts over scarce resources.[2] Land degradation due to overgrazing, deforestation, and inadequate land-use planning amplifies drought impacts. The altered rain patterns further limit freshwater accessibility, leading to increased water costs and heightened vulnerability, especially for women and girls, who bear the brunt of fetching water and food, thereby missing out on educational opportunities and reinforcing their vulnerability to climate change impacts.[3]



Description of Intervention

The *Enhancing Climate Resilience of Vulnerable Communities and Ecosystems* in Somalia project was a key, wide-reaching initiative implemented from 2015-2019 across various regions of Somalia, including the autonomous regions of Puntland and Somaliland, aimed at alleviating adverse climate impacts for vulnerable Somali communities. This pioneering project was led by the United Nations Developing Fund (UNDP) and co-financed by the Global Environment Facility (GEF) through its Least Developing Countries Fund (LCDF), commonly referred to as LCDF 1. The project actively assisted various sectors – ministries, districts, NGOs, and community-based organizations (CBO) – to integrate climate change risks into their natural resource planning, management, and implementation processes. This was an essential step given the absence or limited scope of key policies and strategies at the time of project design. The outcomes of the project were divided into two distinct major focuses. The first centered on capacity building and the second focused on implementing effective strategies to reduce vulnerability to demonstrate at the community level ways to enhance both employment and livelihoods for the Somali population.[4]

For capacity development, the project primarily aimed to enhance the skills of government officials in climate change adaptation to mainstream it into national policy-making. Aligning with the creation of Somalia's 4-year National Development Plan, the project provided timely, extensive training and scholarships for Somali government employees. To bridge the disaster risk planning and mitigation gap in Somalia, the project supported 20 districts to establish an additional 8 Disaster Management and Contingencies plans, along with two specific Response Plans in Puntland. The project also supported updating and creating essential policies and tools at various levels of governance. Through implementation partnerships and training, authorities like the Disaster Management Agency (HADMA) were empowered to provide early warnings and timely implementation of emergency drought interventions by the project's conclusion.[5] Furthermore, with the aim to enhance future graduates' qualifications who will later serve in the government, a collaboration between the government and the UNDP progressed curriculums for climate change at the university level. Bringing in professors from around the world, the partnership fostered both institutional and individual growth.[4]

The second aim of the project was to develop and implement, in consultation with the Somalian government, climate-resilient approaches to essential infrastructure for water security and livelihoods. These approaches included implementing more than 150 community water harvesting systems and over 750 ecosystem-based structures, benefitting over 108,000 households with more than half of these women-headed households.[4] In Somaliland and Puntland, the project built a combination of 12 water diversions, 10 earthen dams, 7 shallow wells, 5 water catchments and 85 berkads, which is a man-made reservoir and type of traditional rainwater harvesting system. The project also responded to deforestation and erosion resulting from years of charcoal production[4] by reforestation efforts on 520 ha of rangelands (400 in Somaliland; 120 in Puntland) to restore ecosystem services and enhance community resilience. Additionally, the project focused on reducing the vulnerability of women to climate shocks. Women were trained on climate change adaptation technologies and supported in establishing businesses and marketing these technologies. Training included fodder production, value-chain analysis, and environmentally friendly business modeling. This initiative led to the establishment and revival of women's cooperatives in Puntland and Somaliland, which strengthens and promotes women's businesses centered around solar power, Liquefied Petroleum Gas (LPG), and drip irrigation.

Intervention Funding

The project was collaboratively funded through the United Nations Development Program (UNDP), Global Environment Facility (GEF), and the Least Developed Countries Fund (LCDF), with $8 million USD from GEF/LDCF and $1.5 million USD from UNDP in the initial budget of $9.5 million USD. The total project resources eventually expanded by 19% to reach $11.27 million USDby completion time. This increase was largely due to UNDP's additional contribution of $1.16 million USD in 2019, earmarked for necessary operational expenditures, including staffing and rent to meet the needs of working in challenging, conflict-prone areas.



Outcomes from the Intervention and Dissemination

Improved Water Security

The project markedly bolstered water security, pioneering new water management infrastructure approaches. Substantial support was directed toward the construction and rejuvenation of critical water infrastructures such as earth dams, water diversion structures, canals, and boreholes.[5] The Puntland's largest water reservoir notably served an estimated 200,000 individuals, including local communities, internally displaced people, and pastoralists during the 2016 drought.[5] The Biyo Gudud dam in Somaliland also provided vital support to vulnerable communities during the 2017 flood. This project has drastically improved water accessibility for pastoralists, women, youth, and the elderly in pilot districts, through the creation of innovative medium-scale water infrastructures and has ensuring sustained water availability for human, livestock and agricultural needs.[6] Additionally, the project's investments in medium and large-scale water infrastructure, reforestation, flood-control infrastructure, and watersheds have collectively improved the ecosystem resilience of critical watersheds, rangelands, and forested areas.[4]

Enhanced Government Role and Efficiency in Project Implementation

In the LDCF I project, a shift from the UNDP's traditional Direct Implementation Method enabled selected government agencies in the autonomous regions to become Implementing Partners (IPs). This transition was based on a thorough Harmonized Approach to Cash Transfers (HACT) principles review, ensuring the involvement of only moderate-risk agencies. The UNDPs collaborations were solidified by Letters of Agreement (LOAs), defining detailed, activity-based, and time-bound commitments closely monitored by the Project Implementation Team.[4] This strategic move expanded the project's reach and strengthened government agencies' project management capabilities. By allowing Implementing Partners to align greater control over strategic planning, subcontractor selection, decision-making, and monitoring, it also aligned more with local needs and reduced the Monitoring and Evaluation burden of the project.[4]

Improved Livelihoods and Community Resilience

This project played a significant role in empowering women to take charge in the marketing and dissemination of adaptation technologies, leading to an enhanced asset base. Training on adaptation technologies was provided to 625 individuals, with women making up most of the trainees. In addition, the initiative generated short-term employment opportunities for over 4,000 individuals, with more than 300 them women.[5] At the organizational level, 10 CBOs were revitalized and provided with start-up grants to launch eco-friendly businesses.[5] The local infrastructure improvements such as irrigation canals, water harvesting systems, and solar system installations led to improved water access and livelihoods, and supported environmental-friendly communal businesses such as irrigation, food and fodder production, and marketing of LPG while increasing resilience.[6]

Enhanced Government Capacity in Climate Change Policy

The project substantially strengthened climate change adaptation capacity within the Somali government, which was virtually non-existent at the time of its inception.[4] In doing so, it facilitated climate-compatible policies to reinforce sustainable natural resources management – e.g., National Climate Change Policy and Disaster Management Policy.[1] Institutions in the government, civic and academic spheres have been strengthened to efficiently tackle the impacts of climate change. This work enabled Somalia to submit its inaugural communication on climate change adaptation to the UNFCCC.[1] It has laid a robust foundation for Somalia to enhance its successes by acquiring additional funds from the Global Environment Facility (GEF), Green Climate Fund (GCF) and the World Bank.

Considerations

Ensuring A Theory of Change (TOC)

With a broad undertaking, a clear Theory of Change (TOC) for the initiative is a critical element for fostering cohesion and synergy in project implementation. This project lacked a TOC in project formulation to completion, leading to a fragmented approach in the project's various elements, resulting in weakly linked activities and lost opportunities for synergies between different components. For example, implementation activities could have naturally stemmed from national policies and district disaster management plans; instead, these elements were implemented and independently and concurrently.[4]

Project Stakeholder Coordination

Aside from a clear TOC, establishing transparent and consistent communication channels for all stakeholders is necessary to implement projects effectively. For example, the establishment of regional committees can serve as platforms for increased stakeholder interaction and coordination. This can rectify coordination issues and help to eliminate operational silos and overlapping activities. In the South-Central regions, where the direct implementation method was used, there was minimal involvement from the Directorate of Environment under the Prime Minister's office, highlighting gaps in information exchange and project planning participation.[4] Somaliland and Puntland saw similar coordination failures. Future project implementation should show improved, inclusive, and holistic stakeholder coordination, especially concerning government officials.[4]

Improved Community Partnerships

Future community-based projects should develop a community partnership strategy to ensure sustainability plans are integrated into infrastructure schemes' feasibility studies. These strategies should explore alternatives like community ownership, public-private partnerships, and support for private sector resilience-based businesses. Communities must be informed of and educated in key technical project activities to equip them with the knowledge to ensure the projects' long-term success. Despite being designated as long-term custodians of the new schemes, communities are often not sufficiently consulted about sustainability plans, including financial, ownership, and technical aspects for ongoing operations and maintenance. This oversight can threaten the sustained operation of these schemes.

Citations

[1] UNFCCC (2022) "Somalia's First Adaptation Communication to the UNFCCC":Somalia Adaptation Communication.pdf (unfccc.int)

[2] World Bank, (2021). Somalia Climate Knowledge Portal: https://climateknowledgeportal.worldbank.org/country/somalia/vulnerability

[3] Hodges et al. (2021). Risk and Resilience of Somali Children in the Context of Climate Change, Conflict and Famine. Journal of Applied Research on Children: Risk and Resilience of Somali Children in the Context of Climate Change, Famine, and Conflict (tmc.edu)

[4] Global Environmental Facility (2019) "Enhancing Climate Resilience of Vulnerable Communities and Ecosystems in Somalia" Terminal Evaluation. Retrieved from gefieo.org

[5] United Nations Development Programme (n.d.). Enhancing Climate Change Resilience for Vulnerable Communities in and Ecosystems in Somalia: https://www.undp.org/somalia/projects/enhancing-climate-resilience-vulnerable-communities-and-ecosystems-somalia

[6] United Nations Department of Economic and Social Affairs (n.d.)., Enhancing Climate Resilience of Vulnerable Communities and Ecosystems in Somalia: Enhancing Climate Resilience of the Vulnerable Communities and Ecosystems in Somalia

[7] Harmonized Approach to Cash Transfers (HACT) (2023) socialprotection.org

