



LESOTHO

Improvement of Early-Warning System to Reduce Impacts of Climate Change and Capacity Building to Integrate Climate Change into Development Plans

LEAST DEVELOPED COUNTRIES FUND	
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Other executing partners	Ministry of Natural Resources; Ministry of Planning, Economic and Manpower Development; National Curriculum Development Centre (NCDC); Ministry of Communications, Science and Technology; Disaster Management Authority; Ministry of Agriculture and Food Security

Lesotho is one of the chronically poverty-stricken landlocked LDCs. It is prone to natural disasters, drought, and desertification, has a fragile mountainous ecosystem, and is particularly vulnerable to the impacts of climate change. In its Initial National Communication (INC) to the United Nations Framework Convention on Climate Change (UNFCCC), Lesotho predicts warmer future climatic conditions and changing precipitation patterns in such a way that good seasonal rains that characterize the summer season could shift to late autumn. This is likely to have serious implications for agro-ecological conditions in the country, as the growing season is pushed forward and perhaps shortened. An increase in precipitation in winter may result in heavier snowfall occurrences and strong winds.

Meanwhile, the country is already paying the high costs of global warming. The natural phenomena that have potential for disastrous effects are tornadoes, droughts, strong winds, hail storms, and heavy snowfall. These events leave large numbers of people perilously vulnerable to life-threatening situations and crop/animal damage, wreaking havoc with food security. The fragile soil/terrain characteristics add to the list urging the country to actively engage in measures and policies addressing climate change.

Among key priority needs identified in the National Adaptation Programme of Action (NAPA) were the improvement of early-warning systems to reduce the impacts of climate disasters and hazards, and capacity building and policy reform to integrate climate change into sectoral development plans.



Project Activities and Expected Impacts

The project also seeks to integrate climate change issues into national policy development debates and legislative frameworks by building capacity at both institutional and systemic levels to bring climate change into national planning.

Climate change monitoring and prediction: The project aims to improve the existing meteorological observation network and develop a sound climate-observing system for monitoring climate change. This is achieved through upgrading existing observation equipment and installing new equipment to cover all essential climate parameters.

The project also improves infrastructure and technical capacity for climate prediction, including impact studies at the national level. This is realized through upgrading and capacitating the operational forecasting office to better simulate the local climate and evolution of extreme events at a resolution fine enough to allow accurate spatial and temporal forecasting. The enhanced system is designed to complement and support the needs of an integrated risk communication system described below. The project also devises and implements a system for tailor-made products for sectors like agriculture, water resources, forestry, and social well-being.

Monitoring climate change requires mechanisms for monitoring socioeconomic and environmental vulnerabilities, particularly the impacts on livelihoods. A socioeconomic database linked to the climate database is established to provide interlinkages between climate and various sectors and essential inputs for climate change impact analyses. The database is designed as part of a broader system aimed at modeling and monitoring the indicators in livelihood vulnerabilities.

Climate change risk communication systems: An effective early-warning communications strategy is developed to encourage the population to actively respond to climatic changes. Appropriate and effective communication channels including communication networks for the transmission of data from stations to monitoring centers and from monitoring centers to local communities are developed.

Climate change policy: Existing national initiatives to develop climate change policy frameworks and institutional mechanisms focusing on integration of

climate change into national development plans are strengthened. These frameworks ensure increasing levels of climate change integration, awareness, and education.

Training: The project develops and implements a training program aimed at capacitating technical and operational staff for climate change early warning. This includes building capacity within the national early-warning unit, focusing on preparedness, and management of climate induced disasters.

Public awareness and education: The project seeks to enhance existing public awareness and education strategies and materials in affected communities in support of the climate change risk communication system described above. This creates a core buy-in from the policy makers and public in support of integrating adaptation into development and encouraging public engagement. This is meant to ensure the sustainability, communication, and replicability of the project.

Synergies and Coordination

The Disaster Management Act of Lesotho recognizes the importance of strengthening early-warning systems for disaster management and prevention, and a National Capacity Self Assessment (NCSA) exercise prioritized strengthening the institutions responsible for the implementation of Multilateral Environmental Agreements (MEAs). Lesotho is currently engaged in the Second National Communication (SNC), and the time is right to initiate formulation of a national climate change policy, as the project seeks to accomplish.

The country periodically reviews its national curriculum to meet the present-day requirements in the education system. It is hoped that the project builds awareness in the national education system concerning the need to include climate change information in the national curriculum, particularly at the primary and high school levels. The project also seeks the inclusion of climate change subjects in the curriculum for the tertiary institutions, including sensitization for design of research work on climate change, with a focus on agriculture, water resources, land-use management, and vulnerability assessments. The research work is coordinated in partnership with other established centers in the region, such as the University of Cape Town, South Africa, and the Southern Africa Forest Fire Network.

For More Information

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