

3.0 Lesotho

GOL	Government of Lesotho
DFID	Department for International Development (United Kingdom)
LDCF	Least Developed Countries Fund
NAPA	National Adaptation Programme of Action
PRSP	Poverty Reduction Strategy Paper
MNR	Ministry of Natural Resources
SADC	Southern African Development Community
SIDA	Swedish International Development Agency
START	Global Change Systems for Analysis, Research and Training
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
USDS	United States Department of State

Lesotho is a small country surrounded by the country of South Africa. Often referred to as the “mountain kingdom,” its small territory of 30,000 square kilometers is dominated by craggy mountains and some plateaus (USDS, 2010). Its climate can be characterized as temperate, with a rainy season in the austral summer and dry winters (USDS, 2010).

A. Adaptation Needs and Priorities

Lesotho’s National Adaptation Program of Action (NAPA) was submitted to the United Nations Framework Convention on Climate Change (UNFCCC) in November 2008, outlines the projected changes to Lesotho’s climate in the decades to come, increased frequency and severity of droughts, heat waves, wind storms, dust storms, early frost, extreme cold spells, heavy snowfall and a shortened rainfall season (MNR, 2007). The NAPA also identifies a number of future adaptation needs—to address these projected changes, and provides a list of priority adaptation options that also aim to support and improve livelihoods—especially in the livestock and agriculture sectors where impacts are expected to be the most severe. The priority adaptation options identified are as follows:

- Improving the resilience of livestock production systems;
- Promoting sustainable crop-based livelihood systems;
- Capacity building and policy reform for climate change integration in development plans;
- Improvement of early warning systems against disasters and other hazards;
- Securing village water supply in the Southern Lowlands;
- Management and reclamation of degraded and eroded land in flood prone areas;
- Conservation and rehabilitation of degraded wetlands;
- Improvement of community food security; and
- Strengthening and stabilizing eco-tourism based rural livelihoods.

Lesotho has also highlighted its adaptation technology needs through a report submitted to the UNFCCC (MNR, 2004). The needs it identifies include agricultural technologies to improve productivity in light of climatic changes as well as measures/strategies to enhance soil quality in Lesotho's rangelands.

B. Policy Level Actions

Development activity in Lesotho is currently guided by the document *Lesotho Vision 2020*. Completed in 2005, this document identifies climate change as a critical factor in achieving Lesotho's environmental goals (GOL, 2005). Implementation of *Lesotho Vision 2020* is presently being guided by the "Interim National Development Framework", which covers the period of 2009 to 2011. The document is meant to serve as a bridge between the end of Lesotho's Poverty Reduction Strategy Paper and publication of the National Development Plan, which is anticipated to be released in 2011. The National Development Plan will guide future implementation of *Vision 2020* (GOL, 2009).

Table 1: Key Government Policies and Reports reflecting Adaptation Needs, Priorities and Planned Actions

Name of Policy Action		Government Division Responsible	Status	Sector(s) of Focus	Summary description
1.	First National Communication to the UNFCCC ⁹⁵	Ministry of Natural Resources	Submitted in April 2000	Multi-sectoral	Discusses the impact of climate change on Lesotho, current circumstances, and its greenhouse gas profile, as well as mitigation and adaptation needs.
2.	National Vision 2020	Government of Lesotho	2005	Multi-sectoral	Under the environment section, the document notes climate change as a critical factor in achieving the goal of a “well managed environment.”
3.	National Adaptation Programme of Action ⁹⁶	Ministry of Natural Resources, Lesotho Meteorological Services	Submitted in November 2008	Multi-sectoral	The NAPA outlines future adaptation needs to address the expected impacts of climate change on Lesotho.

C. Current Adaptation Action

A low number of current adaptation projects are underway in Lesotho when compared to other countries in southern Africa. These projects address some of the adaptation priorities identified in Lesotho’s NAPA, including promoting sustainable crop-based livelihood systems, capacity building and policy reform for climate change integration in development plans, improvement of community food security, and the improvement of early warning systems against disasters and other hazards. The latter of these projects was the fourth prioritized project in Lesotho’s NAPA and is implemented with funding provided by the Least Developed Countries Fund (LDCF).

Current projects in Lesotho mainly focus on the agriculture sector and improving governance capacity. In addition, certain projects aim to enhance ecosystem resilience, disaster risk management, and understanding of climate risks. By type, the majority of projects involve capacity building and research, with a minority focused on field implementation (mostly through national projects).

⁹⁵ UNFCCC, http://unfccc.int/essential_background/library/items/3599.php?rec=j&preref=2621#beg

⁹⁶ UNFCCC, <http://unfccc.int/resource/docs/napa/lso01.pdf>

Table 2: Current Adaptation Projects and Programs active in Lesotho

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)	
National Action								
1.	Strengthening Capacity for Climate Change Adaptation in the Agricultural Sector ⁹⁷	The major expected outcome would be strengthened capacity of national, district and local stakeholders and rural communities to achieve household food security and ecosystem resilience through climate change adaptation.	FAO Budget: US\$372,000	Lesotho Government; One World Sustainable Investments, possibly others	Capacity building; Assessment; Field implementation	2009 – 2011	Agriculture; Biodiversity	Lesotho
2.	Impacts and Adaptation to Climate Change for Subsistence Farming Communities ⁹⁸	The study will look at impacts of climate change on livelihoods of subsistence farming communities in Lesotho and current coping strategies and mechanisms that communities employ to adapt to climate change. Capacity building to make communities less vulnerable is also part of the project.	START through a grant from the US National Science Foundation	UNEP	Research; Capacity building	2010 – ?	Agriculture	Lesotho
3.	Improvement of an Early Warning System to Reduce Impacts of Climate Disasters and Hazards ⁹⁹	Development of an early warning system and technical capabilities to monitor and issue warnings on climate and weather extreme events.	LDCF Budget: US\$1.8 million	UNEP with various government ministries ¹⁰⁰	Capacity building; Field implementation	2011 – 2015	Disaster risk management	
Participation in Regional and Global Actions								
4.	Strategies for Adapting to Climate Change in Rural Sub-Saharan Africa:	“Promote adaptation among vulnerable populations through developing comprehensive systems for assessing global	BMZ Budget:	IFPRI (lead); ASARECA; FANRPAN; PIK;	Capacity building; Community	2008 – 2011	Rural areas; Agriculture; Government	African: Angola, Botswana,

⁹⁷ One World, <http://www.oneworldgroup.co.za/projects/climate-change/strengthening-capacity-for-climate-change-adaptation-in-the-agricultural-sector-of-lesotho/> and FAO, <http://www.fao.org/docrep/014/i2228e/i2228e00.pdf>

⁹⁸ START, <http://start.org/programs/africangec/caxton-matarira.html>

⁹⁹ UNFCCC, http://unfccc.int/files/adaptation/application/pdf/lesotho_napa_proj.pdf and GEF, http://www.thegef.org/gef/sites/thegef.org/files/documents/document/5-17-2011%20ID3841%20%20%20Council%20letter_0.pdf

¹⁰⁰ These ministries are: Ministry of Planning, Economic and Manpower Development; National Curriculum, Development Centre; Ministry of Communications, Science and Technology; Disaster Management Authority; and the Ministry of Agriculture and Food Security.

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
Targeting the most vulnerable ¹⁰¹	changes and the changes of these impacts across disaggregated systems, groups, and factors influencing initial state of vulnerability. Provide regional organizations, policy-makers and farmers in sub-Saharan Africa with tools to identify and implement appropriate adaptation strategies.”	US\$91,241	ZALF	based adaptation; Policy formation and integration			Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, South Africa, Tanzania, Zambia and Zimbabwe
<i>In Lesotho: Further information required.</i>							
5. Supporting Integrated and Comprehensive Approaches to Climate Change Adaptation in Africa (or Africa Adaptation Program –AAP) ¹⁰²	Under this program, UNDP will assist 20 African countries in implementing integrated and comprehensive adaptation actions and resilience plans. The projects will ensure that national development processes incorporate climate change risks and opportunities to secure development gains under a changing climate. UNDP will help countries establish an enabling environment and develop the capacity required to design, finance, implement, and monitor long-term and cost-effective adaptation policies and plans.	Japan International Cooperation Agency Budget: US\$92 million	UNDP	Capacity building; Policy formation and integration; Knowledge communication	2008 – 2011	Government	African: 20 African countries ¹⁰³ including: Lesotho, Malawi, Mauritius, Mozambique, Namibia
<i>In Lesotho: The project is focused on: Focused on strengthening: (1) adaptive long-term planning capacities (2) institutional and human resource capacities, (3) policies and measures, (4) a sustainable financing strategy (5) knowledge management activities. Implementation is being led by the Ministry of Natural Resources.</i>							
6. Southern Africa Regional Climate Change Program ¹⁰⁴	The program aims to synthesize relevant climate change science, develop strategic	DFID, SIDA	OneWorld Sustainable	Policy formation and	2009 – 2014	Government; Climate	African: Angola,

¹⁰¹ FANRPAN, <http://www.fanrpan.org/themes/eachproject/?project=2> and http://www.fanrpan.org/documents/d00539/BMZ_Climate_Change_Adaptation_Jun2008.pdf

¹⁰² ALM, <http://www.adaptationlearning.net/program/africa-adaptation-programme> and UNDP-APP, <http://www.undp-aap.org/>

¹⁰³ These countries are Burkina Faso, Cameroon, Congo, Ethiopia, Gabon, Ghana, Kenya, Lesotho, Malawi, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome et Principe, Senegal, Tanzania and Tunisia.

¹⁰⁴ Southern Africa Regional Climate Change Program, http://www.rccp.org.za/index.php?option=com_content&view=article&id=68&Itemid=61&lang=en

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
	research and strengthen the science-policy-governance-finance dialogue. The program will aim to build an evidence base for transboundary responses to climate change, strengthen the region’s voice in international platforms, and enhance its ability to access necessary finance for climate change adaptation.		Investments	integration; Research		information services	Botswana, DRC, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe
<i>In Lesotho: Further information required.</i>							

D. Proposed Adaptation Action

Lesotho’s NAPAs identifies eleven projects in order of priority to help it address its urgent and immediate adaptation needs. These projects are presented in Table 3 below. Following completion of the NAPA, the government of Lesotho invited the UNDP to support implementation of two projects: “Improvement of Crop Production Systems to Reduce Food Insecurity in the Lowlands of Lesotho” and “Improve Resilience of Livestock Production Systems under Extreme Climatic Conditions in various Livelihood Zones in Lesotho.”¹⁰⁵ Neither of these projects appears to have received funding as of yet. However, the LDCF financed project “Improvement of an Early Warning System to Reduce Impacts of Climate Disasters and Hazards” does respond to the fourth priority identified in Lesotho’s NAPA.

¹⁰⁵ UNDP, <http://www.undp.org/ls/energy/napa.php>

Table 3: Proposed Adaptation Projects and Programs in Lesotho's NAPA

Name		Objectives	Type of project	Priority Sector(s)	Geographic focus (if any)
1.	Improve Resilience of Livestock Production Systems Under Extreme Climatic Conditions in Various Livelihood Zones in Lesotho	To improve agriculture's resilience to climate change, in particular to: (a) promote conservation agriculture technologies and drought resistant crop varieties to support dryland farming in the Lowlands and Senqu River Valley; (b) improve horticultural production of fruits and vegetables in the lowlands and foothills; and (c) promote water conserving irrigation systems in the southwestern lowlands and Senqu River Valley.	Capacity building	Agriculture; Freshwater supply	Lowlands, Senqu River
Notes:					
2.	Promoting Sustainable Crop Based Livelihood Systems in Foothills, Lowlands and Senqu River Valley	To address and mitigate the effect of prolonged droughts on Lesotho's livestock industry (including sheep and goat wool production as well as dairy production). Two objectives are to (a) stabilize wool and mohair production systems against climate change in the mountain zone, and (b) improve the state of dairy enterprises in the lowlands and foothills livelihood communities.	Capacity building; Research; Community based Adaptation	Agriculture	Lesotho
Notes:					
3.	Capacity Building and Policy Reform to Integrate Climate Change in Sectoral Development Plans	To mainstream the issues of climate change into the national dialogue, policy development, planning and program implementation.	Capacity building; Policy formation and integration	Government	Lesotho
Notes:					
4.	Improvement of an Early Warning System Against Climate Induced Disasters and Hazards	Development of an early warning system and technical capabilities to monitor and issue warnings on climate and weather extreme events.	Capacity building; Field implementation	Disaster risk management	Lesotho
Notes: This project is currently being funded through the LDCF.					
5.	Securing Village Water Supply for Communities in the Drought Prone Southern Lowlands	To improve community access to clean and optimal water supply; increase a network of water collection systems and points for the affected communities; and improve community capacity to manage the demand and usage of water.	Capacity building; Community based development	Freshwater supply	Lesotho
Notes:					
6.	Management and Reclamation of Degraded and Eroded Land in the Flood Prone Areas	Objectives identified as follows: (a) to implement soil erosion combatting measures; (b) to build the capacity in communities for participatory land use planning; (c)	Capacity building; Policy formation and integration	Agriculture; Coastal zone management	Western lowlands

Name	Objectives	Type of project	Priority Sector(s)	Geographic focus (if any)	
	to implement integrated catchments management systems.	Notes:			
7.	Conservation and Rehabilitation of Degraded Wetlands in the Mountain Areas of Lesotho	To rehabilitate degraded and eroded wetlands in the mountain areas; protect and conserve wetlands ecosystems; and raise public awareness about the important of wetlands.	Capacity building; Knowledge communication	Ecosystem restoration	Mountain regions
		Notes:			
8.	Improvement of Community Food Security through the Promotion of Food Processing and Preservation Technologies	To expand the food processing industry by: (a) enhancing availability and accessibility of food processing and preserving technologies; and (b) reinforcing commercialization in agricultural products.	Capacity building	Agriculture	Lesotho
		Notes:			
9.	Strengthening and stabilizing eco-tourism based rural livelihoods		Capacity building	Tourism	Lesotho
		Notes:			
10.	Promote Wind, Solar and Biogas Energy Use as a Supplement to Hydropower Energy		Knowledge communication; Field implementation	Energy	Lesotho
		Notes:			
11.	Stabilizing Community Livelihoods which are Adversely Affected by Climate Change Through Improvement of Small Scale Industries		Community based adaptation	Private sector	
		Notes:			

E. Assessment

Despite its low number in adaptation projects, Lesotho has made progress in identifying and responding to many adaptation priorities as described in the country's NAPA. In particular, the country has made progress in securing funding for projects focused on resilience to climate change in the agriculture sectors, which is noted as particularly critical to livelihoods and economic activity in Lesotho. It is also enhancing the capacity of its national government to develop and implement adaptation strategies through its participation in projects such as the Africa Adaptation Programme.

Even with this progress, gaps in Lesotho's adaptation action persist. At present, there is weak integration of climate change considerations in the Interim National Development Strategy and *Vision 2020*, although this may be resolved with the release of the National Development Plan in 2011. In addition, certain NAPA projects remain unfunded, including those focused on capacity building and public education measures to address soil erosion and degraded lands, wetlands, food security, and water resources management. Of note, however, is that some of the objectives of these unfunded NAPA projects are being at least partly addressed through projects currently underway in the country.

Based on the priority adaptation areas identified in Lesotho's NAPA, the following gaps persist:

- Securing village water supply in the southern lowlands: implementation of the proposed project "Improvement of Crop Production Systems to Reduce Food Insecurity in the Lowlands of Lesotho" might address this need through a focus on water conserving irrigation systems in the south-western lowlands.
- Management and reclamation of degraded and eroded land in flood prone areas: There are no current projects that address this priority.
- Conservation and rehabilitation of degraded wetlands: There are no current projects that address this priority.
- Strengthening and stabilizing eco-tourism based rural livelihoods: There are no current projects that address this priority.

In addition, gender concerns related to climate change due not seem to have been clearly articulated through existing reports, and are presently not directly addressed in ongoing projects.

References:

Ministry of Natural Resources [MRN] (2004). *Adaptation to Climate Change: Technology Needs in Lesotho: Energy and land use change and forestry*. Accessed in April 2011 from: <http://unfccc.int/ttclear/pdf/TNA/Lesotho/TNA%20report%20lesotho.pdf>

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