THE KINGDOM OF LESOTHO

National Climate Change Policy Implementation Strategy

CCPIS

Ministry of Energy and Meteorology

2017

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ABBREVIATIONS

AMCEN:	The African Ministerial Conference on Environment
AR5:	Fifth Assessment Report of the IPCC
AWS:	Automatic Weather Stations
BECCS:	Bioenergy with Carbon Capture and Storage
BEDCO:	Basotho Enterprises Development Corporation
BOS:	Bureau of Statistics
BUR:	Biennial Updated Report
CBO:	Community Based-Organizations
CCPIS:	Climate Change Policy Implementation Strategy
CCS:	Carbon Capture and Storage
CDM:	Clean Development Mechanism
CDR:	Carbon Dioxide Removal
CAN:	Capacity Needs Assessment
COMESA	Common Market for Eastern and Southern Africa - East African Community
COP:	Conference of Parties
CRM:	Climate Risk Management
CSM:	Crop Stress Management
DNA:	Designated National Authority
DoE:	Department of Energy
DoW:	Department of Water
DWA:	Department of Water Affairs
EIB:	European Investment Bank
ESCF:	Energy Sector Coordination Forum
EU:	European Union
FAO:	Food and Agriculture Organization
FDI:	Foreign Direct Investments
GCF:	Green Climate Fund
GCM:	General Circulation Model
GDP:	Gross Domestic Product
GEF:	Global Environmental Facility
GHG:	Greenhouse Gases
GoL:	Government of Lesotho
HFA:	Hyogo Framework for Action
HIV/AIDS:	Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome
ICM:	Integrated Catchment Management
ICT:	Information Communication Technology
IFF:	Investment and Financial Flows
IPP:	Independent Power Producers
INDC:	Intended Nationally Determined Contribution
IPCC:	Intergovernmental Panel on Climate Change
KPI:	Key Performance Indicators
LAA:	Land Administration Authority
LEC:	Lesotho Electricity Company
LENAFU:	Lesotho National Farmers Union

LEWA:	Lesotho Electricity and Water Authority
LHWP:	Lesotho Highlands Water Project
LMS:	Lesotho Meteorological Services
LNDC:	Lesotho National Development Corporation
LRA:	Lesotho Revenue Authority
LSPP:	Land Use Planning Unit
LTDC:	Lesotho Tourism Development Corporation
LWSC:	Lesotho Water and Sewage Corporation
MEM:	Ministry of Energy and Meteorology
MFI:	Multilateral Finance Institutions
MRV:	Measurement, Reporting and Verification
NAMA:	Nationally Appropriate Mitigation Action
NAP:	National Adaptation Plan
NAPA:	National Adaptation Programme of Action
NDC:	National Determined Contribution
NCC:	National Curriculum Centre
NCCC:	Climate Change Coordination Committee
NCCP:	National Climate Change Policy
NCDC:	National Curriculum Development Centre
NGO:	Non-Governmental Organization
NSDP:	National Strategic Development Plan
NUL:	National University of Lesotho
PF:	Petroleum Fund
PPP:	Public Private Partnership Programme
REDD:	Reducing Emissions from Deforestation and Degradation
REU:	Rural Electrification Unit
RFCs:	Reasons For Concern
SADC:	Southern African Development Cooperation
SDGs:	Sustainable Development Goals
SES:	Sustainable Energy Strategy
STI:	Science, Technology and Innovation
TNA:	Technology Needs Assessment
UNCBD:	United Nations Convention on Biological Diversity
UNCCD:	United Nations Convention to Combat Desertification
UNDP:	United Nations Development Programme
UNCDF:	United Nations Capital Development Fund
UNFCCC:	United Nations Framework Convention for Climate Change
WCDR:	World Conference on Disaster Reduction
WMO:	World Meteorological Organization

EXECUTIVE SUMMARY

This document is premised on the National Climate Change Policy (CCP) of the Kingdom of Lesotho. It presents a five-year Implementation Strategy (CCPIS) of the National Climate Change Policy.

The overall objective of the CCPIS is to affect the implementation of the Climate Change Policy. It identifies action guidelines to build a climate resilient society and promote green development pathways by mainstreaming and integrating climate change into key national socio – economic and environmental sectors.

The strategic objectives of the CCPIS are:

1. To increase resilience of Lesotho to the impacts of CC by reducing climate risks to people, ecosystems and built environment while restoring and ensuring the rational use and the protection of natural resources;
2. To identify and make use of opportunities to reduce GHG emissions that simultaneously contribute to the sustainable and affordable use of natural resources and access to finance and technology and reduce pollution and environmental degradation; and
3. To strengthen the governance, institutional and human capacity enabling access to technological and financial resources for the implementation of the CCP with the equal participation of women, men, youth, vulnerable groups, the civil society and the private sector.

The Strategy is based on the 22 policy statements identified in the CCP. It identifies adaptation and climate risk reduction as issues of national priority. It also recognizes the need and potential to mitigate climate change through low carbon development pathways without prejudice to sustainable development. The strategy further identifies cross-cutting issues of pivotal importance in ensuring sustainable implementation of the climate change policy.

The strategic actions are presented first by policy statement, covering adaptation and risk reduction and/or mitigation and low carbon development, or by the cross-cutting issue. They are referred to the Statements defined in the Policy:

1. Strengthening climate early warning systems and improvement of climatic information, including Research and Systematic Observation (RSO)
2. Enhancement of the resilience of water resources by promoting the integrated catchment management, ensuring access, supply and sanitation
3. Development/promotion of climate-smart agriculture and food security systems
4. Development/promotion of renewable energy sources and increasing energy efficiency
5. Promotion of climate resilience in the mining sector
6. Adaptation and reduction of greenhouse emission in manufacturing
7. Climate proofing and increasing the efficiency of the tourism sector
8. Enhancement of best practices for forestry and rangelands to mitigate and adapt to climate change
9. Increasing of the resilience of environment, ecosystems and biodiversity
10. Addressing of impacts on human health
11. Promotion of low-carbon and climate change resilient transport systems and infrastructures
12. Climate-proofing human settlements and infrastructures
13. Enhancing the resilience of natural and cultural and heritage
14. Promotion of Agro-ecological/Districtal/Local approaches to addressing climate change
15. Strengthening of climate change governance framework
16. Promotion of the participation of women and men, youth and other vulnerable groups
17. Promotion of the participation of the civil society
18. Promotion of the participation of the private sector
19. Implementation of Educational, Training and Public Awareness programmes
20. Promotion of Research and Development, Innovation and Technology Transfer and

21. Mobilization financial and technological resources and
22. Climate resilient security and migration.

A separate Action Plan, Capacity Development and M&E Plans accompany this strategy.

1 INTRODUCTION

The Climate Change Policy Implementation Strategy (CCPIS) is a five-year implementation framework of the National Climate Change Policy. Guided by principles and pillars of: a) adaptation and climate risk reduction; b) mitigation and low carbon development pathways; c) governance d) Climate finance and investment framework as well as e) cross-cutting issues. The strategy establishes action guidelines for mainstreaming climate change into key socio-economic sectoral plans and programmes while safeguarding environmental integrity and sustainable development in Lesotho.

For the effective implementation of the Policy, the Strategy recognises institutional framework for coordination, Monitoring and Evaluation (M&E) as key implementation arrangements. Furthermore, the CCPIS includes targets, responsibilities and estimated costs. The CCPIS is aligned with the second National Strategic Development Plan (NDSP II), the Ministerial Strategic Plan, the Intended National Determined Contribution (INDC), the National Adaptation Programme of Actions (NAPA) and the national Communications (NC).

2 CLIMATE CHANGE POLICY IMPLEMENTATION STRATEGY

2.1 VISION

The vision of the Climate Change Policy and its Implementing Strategy is to build climate change resilient, low-carbon society and prosperous economy and environment in Lesotho.

2.2 MISSION,

Increase climate change resilience and improve the wellbeing of Basotho through mainstreaming and implementing concrete measures for adaptation and climate risk reduction, mitigation and low-carbon development focusing on the most vulnerable, aiming at sustainable development, with active participation of all stakeholders in the social, environmental and economic sectors.

2.3 PRINCIPLES

The Strategy is based on the guiding principles of Policy which emanate from the UNFCCC, Sendai Framework on Risk Reduction and the Paris Agreement African Union Agenda 2063 as well as National Development Policies, Plans and Programmes.

2.4 STRATEGIC OBJECTIVES

The strategic objectives of the CCPIS are:

1. To increase resilience of Lesotho to the impacts of Climate Change by reducing risks to people, ecosystems and built environment while restoring and ensuring the rational use and the protection of natural resources;
2. To identify and make use of opportunities to reduce GHG emissions that simultaneously contribute to the sustainable and affordable use of natural resources and access to finance and technology and reduce pollution and environmental degradation; and
3. To strengthen the governance, institutional and human capacity enabling access to technological and financial resources for the implementation of the CCP with the equal participation of women, men, youth, vulnerable groups, the civil society and the private sector.

2.5 PILLARS

The Strategy is supported by five pillars, namely: (a) adaptation and risk reduction, (b) mitigation and low-carbon development pathways (c) governance (d) Climate finance and investment framework as well as (e) cross-cutting issues. On the basis of these pillars and subsequent policy statements, the strategy identifies respective strategic actions as outlined below.

2.5.1 ADAPTATION AND CLIMATE RISK MANAGEMENT ACTIONS

Lesotho is highly vulnerable to the negative impacts of climate change. In this regard, the strategy recognizes adaptation and risk management actions as the most important point of intervention towards building a climate resilient Lesotho. **Erreur ! Source du renvoi introuvable.** and Figure 4, respectively, show various approaches for managing climate change risk and indicators for climate change adaptation.

The strategic adaptation actions were defined based on these approaches and examples and organized by sector or cross-cutting issues. These intend to answer to the main vulnerabilities of the country by increasing the resilience of the Basotho and its activities.

Table 1: Approaches for managing climate change risks

Overlapping Approaches	**Category**	**Selected examples**
Vulnerability and exposure reduction Adaptation Transformation	1. Human development	Nutrition; health facilities; social support structures.
	2. Poverty alleviation	Disaster risk reduction.
	3. Livelihood security	Livelihood diversification; increased decision-making power; changed cropping.
	4. Disaster risk management	Early warning systems; building codes and practices.
	5. Ecosystem management	Maintaining wetlands; watershed and reservoir management; maintenance of generic diversity.
	6. Spatial or land-use planning	Provisioning of adequate housing, infrastructure, and services.
	7. Structural/physical	**Technological:** Indigenous, traditional and local knowledge; efficient irrigation; conservation agriculture. **Ecosystem based:** Soil conservation; afforestation and reforestation; seed banks; gene banks; community-based natural resource management. **Services:** Essential public health services; enhanced emergency medical services. Engineered & built environment.
	8. Institutional	**Economic options**: Financial incentives; insurance; microfinance. **Laws & regulations:** Building standards & practices; laws to support disaster risk reduction. **National & government policies & programs**: Ecosystem-based management; community based adaptation.

	9. Social	**Educational options**: Awareness raising & integrating into education; knowledge sharing & learning platforms. **Informational options:** Hazard & vulnerability mapping; early warning and response systems. **Behavioural options:** Migration; soil & water conservation; changed cropping, livestock & aquaculture practices.
	10. Spheres of change	**Practical:** Social & technical innovations **Political:** Supporting adaptation and mitigation **Personal:** Influencing climate change responses and assumptions

Source: IPCC, 2014a

Table 2: INDC Indicators for Climate Change Adaptation

	Indicator for adaptation	Data source	Responsible entity
1	Changes in vulnerability	LVAC annual vulnerability assessments	LVAC/ LMS supported
2	a) Share of climate relevant measures mainstreamed in sectoral policies and plans b) Share of Government's budget allocated to climate relevant measures	GoL's annual development plans Government''s annual budgets	Min of Dev Planning/ LMS supported
3	Number of people benefiting from adaptation activities;	Proposals and monitoring reports from the climate relevant projects in the different sectors providing disaggregated data on beneficiaries	Min of Dev Planning/ LMS supported

2.5.2 MITIGATION AND LOW-CARBON DEVELOPMENT ACTIONS

Despite the low Level of GHG emissions, Lesotho is willing to mitigate GHG emission by leveraging on opportunities presented by low-carbon development pathways. In this regard, sectors such as energy, transport, AFOLU and waste management are identified as catalytic in propelling the transition to low-carbon development pathways and green economy.

According to the INDC (GoL, 2015) Lesotho has already undertaken several actions to support a low carbon development trajectory. Such include extensive investment into hydro, solar and wind power potential, embarking on rural electrification and afforestation projects. However, for the country to

realize her full potential in contributing to global mitigation efforts, substantial support from the international community is imperative.

2.5.3 GOVERNANCE

Governance refers to the Policy, legislation and institutional or organisation framework which should be put in place in order to guide the implementation of all climate change activities in the country.

2.5.4 CLIMATE FINANCE AND INVESTMENT FRAMEWORK

Building a climate change resilient, low-carbon society and prosperous economy and environment requires substantial and additional financial resources to enhance the implementation of the proposed actions. In addition to existing funding mechanisms from the UNFCCC, the Strategy identifies various means through which financing may be obtained including: Dedicated Climate Funding from Bilateral and Multilateral Sources; The National Budget; Private Sector Finance and Foreign Direct Investments (FDI) and Funding from Carbon Markets

2.5.5 CROSS-CUTTING ISSUES

Cross cutting issues entail the following: (a) capacity building (education, training and public awareness); (b) research and systematic observation; (c) scientific innovation and technology development and transfer; (d) gender; (e) youth; and (f) vulnerable groups. These themes enhance effective, efficient, and sustainable implementation of proposed climate change mitigation and adaptation interventions.

2.5.5.1 CAPACITY BUILDING

The need for capacity-building to assist parties to respond to climate change has long been recognized. Capacity building is needed at community, district, national and regional levels across all sectors in order to appropriately respond to climate change. Communication actions are an important tool for ensuring that Basotho know and understand the concept of climate change and they are aware of the necessary measures and actions they have to take to ensure that the changing climate does not affect them negatively. This can be done through Education, training and public awareness raising.

2.6 IMPLEMENTATION ARRANGEMENTS AND RESOURCE MOBILIZATION

Implementation arrangements include **institutional frameworks (Legal)** and **resource mobilization framework** for coordination of the implementation of the Policy as well as mobilizing necessary financial resources. Climate change is a cross – cutting issues which affects all socio-economic sectors. This necessitates active engagement of all sectors of the society in implementing various mitigation and adaptation measures, the ultimate goal being to mainstream climate change into national strategic planning frameworks such as the NSDP and annual sectoral plans, programmes and budgets.

2.6.1 Institutional Framework

The strategy recognises the need for an appropriate institutional and organisational framework for coordinating and mainstreaming climate change in all sectors of the economy. As highlight in the section below, MEM, LMS and NCCC are proposed as main components of the main institutions that undertake the coordination and mainstreaming of climate change in respective socio-economic sectors.

Ministry of Energy and Meteorology

Due to the existence of a department (with expertise and technology) specifically dedicated to climate and climate change issues, the Strategy identifies the Ministry of Energy and Meteorology (MEM) as the lead organ to oversee the advancement of the National Climate Change agenda.

Lesotho Meteorological Services

LMS is identified as the leading agency in the generation and dissemination of weather and climate information. The LMS is also the country's scientific authority in climate and climate change issues. Furthermore, LMS is the focal point for the planning and execution of activities pertaining to Lesotho's commitments under the UNFCCC and the Paris Agreement. However, while the LMS is a well-renowned scientific institution, it is not a managerial entity.

With the view to enhance its effectiveness and efficiency in undertaking the above, the strategy recommends the following strategic interventions:

Strengthening of the LMS though:

- Human Resources Capacity building
- Recruitment of more personnel (Staffing)
- Institutional Strengthening (establishment of other departments/units such as a Climate Change Unit and Project management Unit) ;
- Introduction of modern technology.

The National Climate Change Committee

The NCCC is a national multi-sectoral climate change coordinating body with the responsibility to coordinate development and implementation of policies, plans and measures to address climate change issues in Lesotho. Albeit this huge mandate, the NCCC has not being legally instituted. The strategy therefore recommends:

- The NCCC should be legally established through relevant national processes and procedures. This will enhance its full recognition and regulatory capacity to legally coordinate and safeguard the implementation of climate change Policy by various role players.
- The NCCC should be restructured by inter alia, increasing its human resources.
- Appointment of climate change Focal points in each Ministry. The main roles of the focal point is to ensure and oversee the mainstreaming of climate change in respective Ministries plans and programme and provide a feed-back loop mechanism between ministry, LMS and the NCCC.

- Furthermore, the work plans of the sub-committees should be guided by the climate change policy, strategy and action plans. The sub-committees should liaise with each other to ensure synergy on all issues under the guidance of NCCC Chair.
- Strengthen LMS capacity to function as Secretariat to the NCCC.

Roles of other institutions

Whilst MEM, LMS and NCCC are proposed as main institutions responsible for the coordination, and mainstreaming of climate change in respective socio-economic sectors, the strategy recognises the need to engage other institutions in building climate change resilient, low-carbon society and prosperous economy and environment in Lesotho. Appendix II, provide a list of institutions and respective roles and responsibilities in the implementation of the CCPIS

2.6.2 Resource Mobilization

The strategy recognises that responding to climate change requires substantial, predictable and additional financial resources. This calls for the Government to undertake innovate measures aimed at ensuring the sustainable availability of the required financial resources to implement the policy. These measures should ensure inclusive participation of all relevant stakeholder such as the private sector, civil society including NGOs and development partners. Recommended strategic action are articulated in Section 3: Policy statement 21.

3 STRATEGIC ACTIONS

3.1 STRATEGIC ACTIONS TABLE

In line with respective 22 Policy statements, Table 3 presents Strategic actions. The activities respond to the urgent need for action in the five-year planning period of the strategy.

Table 3: strategic actions

	Policy objective	**Strategic activities**
Policy statement 1 Strengthening climate early warning systems and improvement of climatic information, including Research and Systematic Observation (RSO)	▪ Provide the ability to monitor climatic changes and changes in climate variability; ▪ Improve the existing meteorological observation network and develop a sound climate observing system for monitoring climate change;	• Establishment of necessary infrastructure and human capacity in Lesotho Meteorological Services (LMS) to enable functional national EWS • Creation of institutional mechanisms for coordination and implementation of EWS in Lesotho and for use of climate information generated in Component 1 in

	Policy objective	Strategic activities
	▪ Improve infrastructure and technical capacity for climate prediction, including impact studies at the national level. ▪ Ensure cost-effective monitoring; ▪ Improve local long-term climate forecasts; ▪ Observe additional parameters; ▪ Ensure that the climate system continues to be monitored in order to improve communication of the state of the climate.	policy making and sector planning • Pilot testing of EWS protocols and response strategies and sustainability plan • Increase the Automatic Weather Stations network. Strengthen the technical capacity on maintenance of AWS.
Policy statement 2 Enhancement the resilience of water resources by promoting the integrated catchment management, ensuring access, supply and sanitation	▪ Build capacity required to facilitate the integration of climate change into water resource development and utilization plans and programmes; ▪ Develop and strengthen infrastructures and technologies related to water development and use; and ▪ Mobilize the necessary resources required to realize water security and supply.	• Review of water related strategies and policies for climate mainstreaming • Strengthening monitoring of surface and ground water data for catchment areas and link these to climate models • Increase resilience through water harvesting, water reuse practices • Support programmes of constructing multipurpose dams to enhance water storage • Operationalisation of Integrated Catchment Management Framework • Protecting the wetlands of the highlands (GEF proposal) • Increasing rural water supply
Policy statement 3	▪ Build capacity required to facilitate the integration of climate change into water resource development and	• Conservation Agriculture: advocacy, extension/ training, research, integration into formal curricula

	Policy objective	Strategic activities
Development/promotion of climate-smart agriculture and food security systems	utilization plans and programmes, and, ▪ Develop and strengthen infrastructures and technologies related to water development and use.	• Sorghum breeding for high yield and draught tolerance • Increasing capacity for Climate Change Adaptation in the Agriculture Sector • Lesotho Block Farming Initiatives • Promote innovation in post-harvest storage and food processing • Promotion of science and technology to enhance food security, productivity and resilience • Updating sector policy and food security strategy to mainstream climate smart agricultural approaches • Expanding climate smart agricultural practices to smallholder's farmers • Developing irrigation systems and capacity for small holder farmers to produce high value crops • Develop local seed breeding and multiplication programme for food crops • Scaling up soil and land conservation in crop lands
Policy statement 4 Development/promotion of renewable energy sources and increasing energy efficiency	▪ Promote renewable energy systems across the country; and ▪ Develop human resource capacity for sustainable energy sources and technology.	• Develop clean and sustainable energy sources • Reduce biomass consumption through adoption of energy efficient cook stoves • Reduce electricity consumption through increasing energy efficiency at consumer level • Increased local availability of biomass through

	Policy objective	Strategic activities
		reforestation and afforestation • Adoption of biogas for households and institutional users
Policy statement 5 Promotion of climate resilience in the mining sector	▪ Encourage conducive environmentally friendly and socio-economic sustainability in the mining sector and ▪ Promote climate conscious and informed governance of the mining and mineral sectors.	• Early warning system for mines to reduce flood risks and other climate sensitive risks • Improve EE in mining processes
Policy statement 6 Adaptation and reduction of greenhouse emission in manufacturing	▪ Examine issues relating to international co-operation and sectoral competitiveness; ▪ Assess both current and potential future risks. The assessment should include economic valuation of the climate risks, which can help make the business case for investments to increase climate resilience; and ▪ Outline lessons learned and implications for future trends such as technology innovation	• Improve resource efficiency in manufacturing processes
Policy statement 7 Climate proofing and increasing the efficiency of the tourism sector	▪ Develop and promote climate adapting business strategies that will protect the industry from adverse impacts on climate change and climate variability; ▪ Establish environmentally responsible practices to protect the natural environment including biodiversity;	• Develop methodology to climate proof current and future tourism investments • Improve resource efficiency in tourism sector • Include resource efficiency criteria in the grading of tourist facilities

	Policy objective	Strategic activities
	▪ Put in place tourist environment policies in community-based tourist businesses; ▪ Promote and strengthen awareness on ecotourism and climate; and ▪ Set clear protocols and procedures to involve other sectors and communities in promoting adaptation to climate extreme events within the local industry.	
Policy statement 8 Enhancement of best practices for forestry and rangelands to mitigate and adapt to climate change	▪ Reduce vegetation degradation; ▪ Promote ecosystem balance by improving and maintaining productivity of rangeland resources at optimum level using ecologically sound rangeland management practices; ▪ Protect forests, grasslands and other vegetative plant species against climate induced hazards; and ▪ Promote efforts to Reduce Emissions from Deforestation and forest Degradation (REDD+) and conservation, sustainable management of forests and enhancement of forest carbon stocks.	• Support review and implementation of National Forest Policy • Develop and maintain a frequent forest inventory system to facilitate monitoring of forest status and initiate a research programme on a range of climate change-related topics • Support community based agro-forestry programs • Promote growing of Draught tolerant and fast growing tree species • Community based afforestation and reforestation to reduce soil erosion and increase carbon sinks • Upscale integrated rangeland management project (watershed management) • Rangeland managed in climate smart way (WAMPP/MAFS)

	Policy objective	Strategic activities
Policy statement 9 Increasing of the resilience of environment, ecosystems and biodiversity	▪ Increase biodiversity resilience against impacts of climate change; ▪ Mainstreaming of biodiversity sustainable use and conservation with climate change mitigation, adaptation and sustainable development; and ▪ Enhance public participation and ownership in environment and climate change programmes	• Enhance regulatory protection for species potentially at risk due to climate change • Mainstreaming climate change into the national environmental management systems, tools and practices • Update the biodiversity report • Promoting conservation and regeneration of biodiversity, focusing on indigenous species • Management and reclamation of degraded and eroded land in the flood prone areas
Policy statement 10 Addressing of impacts on human health	▪ Identify and improve data recording, reporting, analysis and storage of climate-sensitive diseases at all levels of service delivery; ▪ Enhance knowledge and sensitize the health sector on the impacts of climate change; ▪ Minimize the impacts of climate change on health in communities whilst encouraging, strengthening of public health care delivery and preventive care; and ▪ Reduce GHG emissions from health sector.	• Implement the National Plan for Libreville declaration 2013; Improve national resilience to CC and CC governance in health • Construct more health centres to improve access to health facilities within walking distance, with special focus on vulnerable areas
Policy statement 11 Promotion of low-carbon and climate change resilient transport	▪ Develop clean energy-efficient transport systems; ▪ Develop human resource capacity on governance	• Strengthen standards to ensure that roads and critical public infrastructure are climate proof.

	Policy objective	Strategic activities
systems and infrastructures	and technologies related to efficient transport systems; and ▪ Develop climate proof road infrastructure. ▪	• Reduce GHG emissions through enforcing national vehicle emission standards and control systems combined with import restrictions of high emission vehicles • Develop transport master plan for urban areas encouraging low carbon transport systems
Policy statement 12 Climate-proofing human settlements and infrastructures	▪ Establish mechanisms for disaster management and preparedness such as relocation programmes/schemes to facilitate relocation from disaster prone to safer climate areas; ▪ Develop climate change awareness programmes involving all stakeholders; ▪ Enhance proper planning of urban settlements including ensuring that they have proper housing structures, and adequate waste disposal facilities as well as piped water infrastructure, ▪ Devise/Revise the building codes to factor in climate change; ▪ Introduce changes in the design of infrastructure (e.g. enhancement of the designs of roads, bridges and drainage systems to suit different climatic conditions); and ▪ Establish a strategic fund (either a separate Fund or	• Develop codes for low carbon and Climate resilient buildings • Develop climate vulnerability maps for human settlements to guide urban and rural development plans, including sustainable land use planning and management

	Policy objective	Strategic activities
	as a component of the National Road Fund Agency) for responding to infrastructural (roads and other infrastructure) damages caused to by extreme weather events (floods).	
Policy statement 13 Enhancing the resilience of natural and cultural and heritage	▪ Preserve and maintain local indigenous knowledge and community practices in environmental management in relation to building national resilience to climate change; and ▪ Promote climate change mainstreaming and capacity-building in culture at all levels of development of a dynamic cultural and creative sector, specifically also increasing creativity, innovation and entrepreneurship.	• Develop a framework for protecting cultural artefacts and indigenous knowledge in the country against climate hazards • Training heritage professionals to plan for climate change
Policy statement 14 Promotion of Agro-ecological/District/Local approaches to addressing climate change	▪ Develop harmonized mechanism at the local level on climate change adaptation and mitigation; and ▪ Create climate change focal points at local level and develop human resource capacity.	• Capacity building of local government and chieftainship on climate change issues • Piloting Climate Change Resilient and Low Carbon Communities, LAPAs in the 4 agro-ecological zones
Policy statement 15	▪ Improve climate change governance and institutional frameworks; ▪ Effect legal and regulatory frameworks governing the	• Strengthen the governmental institutions in formulating the NAP • LMS to develop capacity across all sectors to mainstream CC and to

	Policy objective	Strategic activities
Strengthening of climate change governance framework	climate change undertakings; and ▪ Ensure effective climate change coordination mechanisms within relevant institutions.	mobilize resources to support climate projects • Review existing national and sectoral development policies, strategies and plans to mainstream climate change issues • Improve the capacity of each ministry level planning units to manage climate change issues in coordination with LMS and NCCC • Mobilising institutional resources for mainstreaming climate change issues across sectors
Policy statement 16 Promotion of the participation of women and men, youth and other vulnerable groups	▪ Promote equitable participation in climate change programmes; ▪ Encourage information and experience sharing with other climate smart partners; and ▪ Increase climate change advocacy to all levels of society	• Create awareness among women, youth and other vulnerable groups through the elaboration and implementation of a targeted communication campaign • Develop and implement gender and social inclusion program • Develop policy and guideline guidelines for Government projects to encourage affirmative action in favour of women, men, youth and vulnerable groups • Encourage adaptation of climate relevant technologies in favour of gender, youth and vulnerable groups
Policy statement 17 Promotion of the participation of the civil society	▪ Encourage the participation of civil society in climate change related initiatives in the country ▪ Promote climate change awareness and education	• Engage civil society in the implementation of Government adaptation programmes through strategic partnerships

	Policy objective	Strategic activities
	to civil society in the country; and ▪ Introduce innovative incentives to enhance the interest for civil society active participation in climate change programmes.	
Policy statement 18 Promotion of the participation of the private sector	▪ Encourage the participation of private sector in climate change related initiatives in the country; ▪ Promote climate change awareness and education to private sector in the country; and ▪ Introduce innovative incentives to enhance the interest for private sector active participation in climate change programmes.	• Engage PS in the implementation of Government adaptation programmes through PPPs • Deliver trainings and capacity building programme for private sector on climate related issues, including climate finance, proposal formulation, threats and opportunities • Encourage alternative livelihoods to reduce pressure on land and rangeland resources through SME and cooperative development • Pilot investments into alternative sustainable livelihood projects (focus on biodiversity based products and eco-tourism)
Policy statement 19 Implementation of Educational, Training and Public Awareness programme	▪ Fully integrate climate change into education curricula and develop a continuous program for training of trainers on climate change issues; ▪ Enhance climate change education, public awareness and communication; and ▪ Create platform for capacity building and information sharing on	• Public awareness programme • Review of the tool kit integrating CC in the national curriculum and upscaling to all schools • Design and implement education, research and study program on climate change at primary, secondary and tertiary levels • Information and Communication Technologies (ICTs) play an important role

	Policy objective	Strategic activities
	climate change issues with media community.	in climate change monitoring, information sharing and advocacy. The available ICTs in Lesotho include radios, television, mobile phone and internet networks, of these cell phones and radios being the most commonly used • Establishing a National Climate Change Awareness campaign • Using print and electronic media to pass climate change information in various articles and programmes on climate change in the media • Education-based entertainment, i.e. "edutainment": educating the citizens on climate change while entertaining them at the same time through e.g., theatrical performances • Creating climate change training material and programmes for target groups of stakeholders and specific groups, i.e. women, men children, youth, people with disabilities, religious groups • Promotional activities and sponsorship of events with climate change themes, e.g. a reward scheme for pupils or individuals who plant trees and maintain them, • Schools or colleges' competitions where students perform drama, poetry, essays and music with climate change themes and the best get rewarded • Formation of youth, women's and men's groups, CBOs, as forums for outreach, and including existing youth groups and initiatives in

	Policy objective	Strategic activities
		ongoing climate change and decision making activities • Documenting climate change impacts and linking them to community livelihoods • Online blogging on sites such as Facebook, Twitter, Google Groups, and Yahoo Groups through which various topics on climate change could be discussed • Using graphical images to pass climate change information • Eco-tournaments – using sporting events (athletics, football, etc) to raise awareness • Encouraging individual voluntarism in raising awareness • Involving the corporate sector, especially the mobile telephone industry e.g. to display 'airtime top-up messages' on climate change the following measures should be pursued: • Curricula review to integrate climate change into education systems: The Ministry of Education should incorporate climate change into school curricula at all levels as part of education and public awareness. The expected outputs should include: - Updated school curricula with climate change content, - Updated textbooks and other learning material with climate change content, - Better educated pupils/students in the field of climate change, and -

	Policy objective	Strategic activities
		Updated or new courses incorporating climate change issues, • Develop, strengthen and harmonise national education, research institutions and programmes on issues regarding the impacts of, adaptation to and mitigation against climate change. This in turn should lead to the development of technological capacity in various climate change fields • Involvement of local administration and community leaders: Educating and training development workers, local authorities, community leaders on climate change results in committed mutual understanding and concerted action against climate change • Developing and disseminating climate change literature in local languages for the benefit of marginalised populations and the general public, thereby encouraging their involvement in adaptation and mitigations programmes. Scientific data and terminologies should be well explained and simplified in literature, which could be in the form of brochures, illustrated pamphlets, billboards and journals.
Policy statement **20** Promotion of Research and Development,	▪ Encouraging imbedding climate change themes into research and development initiatives; ▪ Introduction of incentives to encourage innovations related to climate change	• Incorporate Climate Change in the Science & Technology policy and Act for approval by Parliament • Allocate share of funding for CC mitigation and adaptation

	Policy objective	Strategic activities
Innovation and Technology Transfer	initiatives; and ▪ Encouragement of the participation at both technical and policy level in regional and international climate change related forums to enhance technology transfer and cooperation.	of proposed Science and Innovation Fund • undertake enhanced action on technology development and transfer to support action on mitigation and adaptation by exploring opportunities from: The Kyoto Protocol's CDM or its future successor; the United Nations Industrial Development Organization (UNIDO); South-South transfer of technology; development partners' initiatives (e.g. Nordic Climate Facility (NCF)); • Establishment and capacity enhancement of local technological innovation centers; and technology transfer within a future climate change agreement framework
Policy statement 21 Mobilization financial and technological resources and	▪ Mobilize of financial resources required to implement the climate change programmes; and ▪ Encourage investments in technologies responsive to climate change programmes.	• Elaboration of strategy and plan for the mobilization of financial resources • Capacity building programme in MF/ MDP and line ministries to formulate project proposals for climate funding • Implementing GCF readiness programme for establishing DNA capacity and NIE
Policy statement 22 Climate resilient security and migration.	▪ Preventing forced migration resulting from environmental factors to the extent possible ▪ Providing assistance and protection to affected populations forced	• Establish frameworks (institutional and regulatory) for the management of climate related national and cross - border migration

	Policy objective	Strategic activities
	migration due to climate change; ▪ Facilitating migration as an adaptation strategy to climate change; ▪ Ensuring equal opportunities for migrants, to economic and social amenities at destination areas; ▪ Promoting development and resilience/adaptation in areas of origin and destination; ▪ Ensuring stability and national security.	• Conduct climate related National Migration Assessment Mapping • Develop a climate related National Migration Data Management system • Establish resilience building programmes in areas of high migration threat and resettlement programmes (access to services and infrastructure, livelihood and income generation diversification, safety nets, microfinance schemes, vocational training)

3.2 MONITORING AND EVALUATION

Monitoring and Evaluation Framework for the CCIS

The Ministry of Energy and Meteorology shall be responsible for tracking, coordinating and overseeing the implementation of this strategy.

Monitoring Plan

In principle, monitoring is seen as a management process which systematically seeks to supply information to the stakeholder on the progress of implementation of the activities to facilitate timely decision making and to generate evidence and arguments that test and alter beliefs and assumptions so as to influence mainstreaming of climate change into development programs. This monitoring plan has been designed to ensure collection of information for use by coordinating agencies and key stakeholders.

The Information shall be collected through reports submitted by the key sectors to the Climate change Unit once every six months. In additional the following method shall also be applied;

1. Stakeholder analysis
2. Documentation review
3. Biophysical measurements

4. Direct observation
5. Cost Benefit Analysis
6. Questionnaires and surveys
7. Semi-structured interviews

Evaluation Plan

Given the number of strategic objectives, it is recommended that MTENR, MoFNP and OVP undertake a mid-term independent evaluation at the middle of the plan period and a terminal evaluation just before the end of the strategic plan period. Both exercises should be conducted after the evaluation terms of reference have been drafted and agreed upon by all the major stakeholders.

A detailed M&E logic framework is elaborated in Annex 2

4 ANNEXES

4.1 ANNEX 1: LIST OF TABLES

4.2 ANNEX 2: GLOSSARY

Adaptation actions: to put in practice physical or management arrangements that respond to the opportunities or threats posed by climate change (CC), such as: resettling people or goods in safer locations, relocating installations to avoid the risk of flood or changing crop varieties to those better able to cope with the climate. Enterprise associations and professional bodies, as well as central and local governmental departments, should assist in this task.

Adaptation: the process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects.[1]

Adaptive capacity: the potential capacity or ability of a system, region or community to adapt successfully to the effects or impacts of climate variability or change.

Adverse effects of climate change: changes in the physical environment or biota resulting from CC, which have significant deleterious effects upon the composition, resistance or productivity of natural and managed ecosystems; the functioning of socioeconomic systems; and/or human health and welfare.

Carbon sequestration: the process of removing carbon dioxide from the atmosphere that occurs mainly in the oceans, forests and other systems in which organisms capture the gas through photosynthesis.

Climate Change (CC): to a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcings such as modulations of the solar cycles, volcanic eruptions, and persistent anthropogenic changes in the composition of the atmosphere or in land use. The UNFCCC, in its Article

[1] IPCC, 2014a

1, defines climate change as: “a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.” The UNFCCC thus makes a distinction between climate change attributable to human activities altering the atmospheric composition, and climate variability attributable to natural causes.[2]

Climate-resilient pathways: are sustainable-development trajectories that combine adaptation and mitigation to reduce climate change and its impacts. They include iterative processes to ensure that effective risk management can be implemented and sustained.[3]

Climate sensitivity: the degree to which a system is affected (adversely or positively) by climatic stimuli.

Climate vulnerability: the degree to which human and environmental systems react when experiencing a disturbance or stress. Usually it is described as a function of three main characteristics: degree of exposition to climate phenomena, climate sensitivity, and adaptive capacity.

Exposure: the presence of people, livelihoods, species or ecosystems, environmental functions, services, and resources, infrastructure, or economic, social, or cultural assets in places and settings that could be adversely affected.[4]

Global Warming Potential (GWP): a relative measure of how much heat is trapped in the atmosphere by specific greenhouse gases (GHG), compared to the same quantity of carbon dioxide (which has a GWP of 1). GWP is calculated for a specific time interval, and the values to use are de ned by IPCC. The GWP of emissions/reductions are expressed in units of carbon dioxide equivalent (CO_2e).

Green economy: improvement of people’s living conditions, well-being and social equity while significantly reducing environmental risks and ecological scarcities. At its simplest, a green economy can be thought of as one which is low carbon, resource efficient and socially inclusive[5]. In a green economy, growth in incomes and employment result from public and private investments that reduce carbon and other GHG emissions and pollution, enhance the efficient use of energy and other resources, and prevent the loss of biodiversity and ecosystems. The green economy is a vehicle for achieving sustainable and low-carbon development.

[2] IPCC, 2014a

[3] IPCC, 2014a

[4]IPCC, 2014a

[5]http://www.unep.org/greeneconomy/AboutGEI/WhatisGEI/tabid/29784/Default.aspx

Greenhouse effect: GHGs in the atmosphere absorb a portion of the infrared radiation emitted by the Earth's surface. As a consequence, heat is trapped instead of being released into space. The greenhouse effect – within a certain range – is vital; it keeps the planet warm and ensures the maintenance of life. However, a stronger greenhouse effect could become catastrophic if it destabilizes the balance on the planet and gives rise to a phenomenon known as 'global warming' – an increase in the average temperature of the Earth's surface. The Intergovernmental Panel on Climate Change (IPCC), established by the United Nations and the World Meteorological Organization in 1988, in its latest report notes that most of the warming observed over the last 50 years, has most likely originated from the increase in the concentration of GHGs in the atmosphere.

Greenhouse gases (GHG): gaseous constituents of the atmosphere, both natural and synthetic, that absorb and re-emit infrared radiation. Examples include CO_2, CH_4, N_2O, HFCs, PFCs, SF_6 and NF_3.

Hazard: the potential occurrence of a natural or human-induced physical event or trend or physical impact that may cause loss of life, injury, or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems, and environmental resources. In this report, the term *hazard* usually refers to climate-related physical events or trends or their physical impacts.[6]

Impacts: effects on natural and human systems. In this report, the term *impacts* is used primarily to refer to the effects on natural and human systems of extreme weather and climate events and of climate change. Impacts generally refer to effects on lives, livelihoods, health, ecosystems, economies, societies, cultures, services, and infrastructure due to the interaction of climate changes or hazardous climate events occurring within a specific time period and the vulnerability of an exposed society or system. Impacts are also referred to as *consequences* and *outcomes*. The impacts of climate change on geophysical systems, including floods, droughts, and sea level rise, are a subset of impacts called physical impacts.[7]

Informal settlements: the peripheral areas of cities in which inhabitants live in housing that is substandard in terms of both the construction materials used and the state of preservation. These areas are also characterized by an almost total absence of ventilation; a lack of streets and, consequently, systems for water supply and sewerage; insufficient lighting; lack of clean water, sanitation and drainage ditches, which results in the accumulation of water in rainy periods, lea- ding to increased exposure to infectious and water-borne diseases.

Low-carbon development: any intervention that promotes development and increases prosperity without compromising the environment. In other words, it involves the decoupling of in- creases in

[6]IPCC, 2014a

[7]IPCC, 2014a

GHG emissions from economic development. This approach redefines the paradigm of development, and enhances resilience through innovative solutions.

Mitigation: any anthropogenic intervention that can reduce or control/prevent GHG emissions as well as increase the sink capacity for removing GHG from the atmosphere.

Resilience: The capacity of social, economic, and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity, and structure, while also maintaining the capacity for adaptation, learning, and transformation.[8]

Reasons for Concern: illustrate the implications of warming and of adaptation limits for people, economies, and ecosystems. They provide one starting point for evaluating dangerous anthropogenic interference with the climate system. Five integrative reasons for concern (RFCs) provide a framework for summarizing key risks across sectors and regions: (1) unique and threatened ecosystems, (2) extreme weather events, (3) distribution of impacts, (4) global aggregate impacts and (5) large-scale singular events.[9]

Risk: the potential for consequences where something of value is at stake and where the outcome is uncertain, recognizing the diversity of values. Risk is often represented as probability of occurrence of hazardous events or trends multiplied by the impacts if these events or trends occur. Risk results from the interaction of vulnerability, exposure, and hazard. In this document, the term *risk* is used primarily to refer to the risks of climate-change impacts.[10]

Sink: any process, activity or mechanism that removes GHGs from the atmosphere.

Sustainable development: commonly defined as development that satisfies current needs without compromising the welfare of future generations.

Transformation: A change in the fundamental attributes of natural and human systems. Within this summary, transformation could reflect strengthened, altered, or aligned paradigms, goals, or values towards promoting adaptation for sustainable development, including poverty reduction.[11]

[8] IPCC, 2014a

[9] Adapted from IPPC, 2014

[10] IPCC, 2014a

[11]IPCC, 2014a

Technology transfer: A wide range of processes that include the movement of knowledge, experience and equipment for the purposes of climate change adaptation and mitigation among different parties, such as the government, the private sector, financial, educational and research institutions and NGOs.

Vulnerability: The propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.[12]

4.3 ANNEX 3: BLIBLIOGRAPHIC REFERENCES

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[12] IPCC, 2014a

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4.4 ANNEX 4: COSTED CCPIS ACTION PLAN