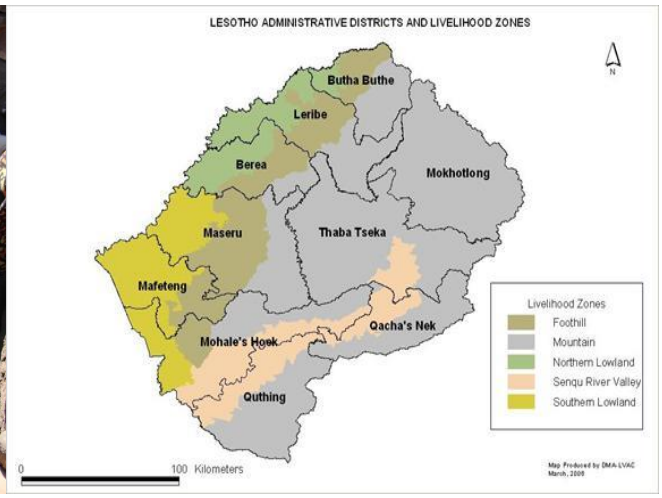
# Terminal Evaluation of the Lesotho NAPA Project titled "Improvement of Early Warning System to Reduce Impacts of Climate Change and Capacity Building to Integrate Climate Change into Development Plans"




**Evaluation Office of UN Environment**
**June 2018**

**Evaluation Office of UN Environment**

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Lesotho NAPA Project
GEF ID: 3841
June 2018

# ACKNOWLEDGEMENTS

This Report documents the findings of the Terminal Evaluation of the Lesotho NAPA Project titled "Improvement of Early Warning System to Reduce Impacts of Climate Change and Capacity Building to Integrate Climate Change into Development Plans". Nyawira Muthui of Athari Resilient Development Advisory Services prepared the report for the Evaluation Office of UN Environment. The report benefits from a peer review conducted within the Evaluation Office of UN Environment.

The Evaluation Office of UN Environment would like to thank the Lesotho NAPA project teams and in particular Mrs Mabafokeng Mahahabisa, the Director of Lesotho Meteorological Services and the National Project Director, and Mr Mosuoe Letuma, Principal Meteorologist and Project Manager, for their contribution and collaboration throughout the Evaluation process. The Evaluation Office of UN Environment would also like to thank the Government of Lesotho.

The author acknowledges the generous contributions of the many people who participated in the evaluation, willingly contributing their time and generously sharing information and their project experiences. In particular, I thank the following: Ms Mela Shah of the UN Environment Evaluation Office for her tireless facilitation of many aspects of the evaluation; Ntate Mape Mohlomi for the interpretation in the field; Mme Mmamokhomo Mabote and Ntate Teboho Kojoana for the logistics of the fieldwork; and the Project Steering Committee for the lively discussions of the evaluation findings. I would also like to thank Nina Raasakka of the UN Environment and former Task Manager for the project, Mr. Dirk Snyman, the Chief Technical Advisor of the Project, and his colleagues at C4ES Consulting Company for their willingness to dig deep into forgotten files to find information relevant to the evaluation. I also thank Jessica Troni of the UN Environment for taking on the role of the Task Manager (the previous Task Manager, Nauman Haque,moved on from UN Environment ), and making the necessary linkages to the sources of information. I especially thank Ms. Zahra Hassanali of UN Environment Evaluation for her patience, professionalism and valued mentoring throughout the evaluation process. Lastly, I thank the more than 300 men and women who braved the sun and rain to attend the evaluation meetings in village squares, and the lively debates we had.

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Joint Evaluation: No
Report Language(s): English
Evaluation Type: Terminal Project Evaluation

# ABOUT THE EVALUATION[1]

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## BRIEF DESCRIPTION

This report is a Terminal Evaluation of a Government of Lesotho Project, funded by the Global Environment Facility and Executed by the United Nations Environment. The project was implemented between 2011 and Q4 2017, spending US$ 1,650,801.51 against a budget of US$ 1,735,000.00 (95.1 percent), taking seven years against a planned time frame of four years. The project's overall objective was to develop and strengthen technical and human capacity required for proper monitoring and forecasting of climate change impacts, to enable timely prediction of extreme weather events and to improve planning for climate change adaptation. The evaluation assessed project performance along the OECD criteria of relevance, effectiveness and efficiency, impacts (actual and potential) and sustainability. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among the Government and communities involved in the project, the United Nations Environment, and the Global Environment Facility and its network of Implementing Agencies.

The evaluation was undertaken by Ms Muthui, a senior natural resources management professional, with 20 years' experience facilitating African governments and local communities to mainstream environment, natural resources management and climate risks into Development Planning programs, projects and policies, gathered from United Nations, International Non-Governmental Organizations, Academic Institutions and Civil Society (CV in Annex 8). From 2006 to October 2014, Ms. Muthui was a Technical Advisor on Land/Forest Management, Ecosystems and Biodiversity at the UNDP-GEF, a unit that assists African governments to program and access resources from the Global Environment Facility, Least Developed Country Fund for Adaptation, the Green Climate Fund and other international and bilateral funds. Before that she managed a consulting company that primarily developed and supervised implementation of environmental projects in Eastern and Southern Africa (2004-2006). Prior to that, she worked for the International Union for Conservation of Nature (IUCN) at regional and global levels (1997-2003). Ms Muthui worked with the University of Nairobi between 1993 and1995, and was a member of a UNESCO Research Team in Northern Kenya between 1987 and 1992 (including two years of study for an MSc). Ms Muthui has therefore formulated, supervised the implementation of, and evaluated numerous projects throughout Africa, many of them addressing climate change adaptation, biodiversity conservation, sustainable land and forest.

**Key words**

trials, pilots, policy, weather stations; climate information; early warning systems; adaptation technologies; climate risk; climate sensitive sectors; public participation; failed trials on adaptation technologies; Global Environment Facility; GEF; vulnerability mapping; Quthing; Thaba Tseka; Mafeteng; project evaluation; Terminal Evaluation; TE; trust fund, NAPA, climate change, climate change adaptation, CCA

[1] *This data is used to aid the internet search of this report on the Evaluation Office of UN Environment Website*

# TABLE OF CONTENTS

## LIST OF TABLES

## LIST OF FIGURES



## LIST OF BOXES

ACRONYMS

| Acronym | Definition |
|---|---|
| AAP | Africa Adaptation Programme |
| AWS | Automated Weather Stations |
| CA | Conservation Agriculture |
| CC | Climate Change |
| CCA | Climate Change Adaptation |
| CEO | Chief Executive Officer (for the Global Environment Facility) |
| CI | Climate Information |
| CTA | Chief Technical Advisor |
| DRM | Disaster risk Management |
| DRR | Disaster Risk Reduction |
| EWS | Early Warning System |
| GEF | Global Environment Facility |
| GIS | Geographic Information Systems |
| GoL | Government of Lesotho |
| LDCF | Least Developed Country Fund |
| LMS | Lesotho Metrological Services |
| MAFS | Ministry of Agriculture and Food Security |
| M&E | Monitoring and Evaluation |
| MEMWA | Ministry of Energy, Metrology and Water Affairs |
| MoFLR | Ministry of Forestry and Land Reclamation |
| MOU | Memorandum of Understanding |
| MSP | Medium Size Project |
| MTR | Mid Term Review |
| MTS | Medium Term Strategy |
| NAPA | National Adaptation Plan of Action |
| NCCC | National Climate Coordination Committee |
| NPC | National Project Coordinator |
| PIR | Project Implementation Report |
| PM | Project Manager |
| PMU | Project Management Unit |
| POW | Program of Work |
| PSC | Program Steering Committee |
| RMRP | Rangeland Management and Rehabilitation Plans |
| RToC | Reconstructed Theory of Change |
| SADC | Southern African Development Community |
| TE | Terminal Evaluation |
| TM | Task Manager |
| TORs | Terms of Reference |
| UNDP | United Nations Development Programme |
| UN ENVIRONMENT | United Nations Environment Programme |
| UNFCCC | United Nations Framework Convention on Climate Change |

**Terminal Evaluation of the UN Environment/GEF project "Improvement of Early Warning System to Reduce Impacts of Climate Change and Capacity Building to Integrate Climate Change into Development Plans"**

# 1 INTRODUCTION

| | | | |
|---|---|---|---|
| UN Environment PIMS ID: | LDL/00398 | IMIS number: | LDL/2328-2724-4C21 |
| Sub-programme: UN Environment-Medium-term Strategy: 2010–2013 | Climate Change | Expected Accomplishment(s): | • Adaptation planning, financing and cost effective preventative actions are increasingly incorporated into national development processes, supported by scientific information, integrated climate impact assessments and local climate data<br>• Improved technologies are deployed and obsolescent technologies phased out, financed through private and public sources including the Clean Development Mechanism;<br>• Country policymakers and negotiators, civil society and the private sector have access to relevant climate change science and information for decision-making. |
| UN Environment approval date: | 29 August 2011 | PoW Output(s): | **Output a)** Adaptation, including an ecosystem based adaptation approach, is incorporated into country development planning and policymaking based on scientific assessments, policy and legislative advice and lessons learned from pilot projects supported by UN Environment and adaptation experiences, including an ecosystem-based approach, showcased at the global level;<br><br>**Indicator a)** Increased number of countries that integrate adaptation, including an ecosystem-based approach, into their national development plans with the assistance of UN Environment;<br><br>**Output e)** climate change assessments and information for decision-making and long-term planning;<br>**Indicator (e)(**i) Increased number of sector specific local, national and regional development plans that incorporate climate-related assessment with the assistance of UN Environment |
| GEF project ID: | 3841 | Project Type: | Medium Size Project (MSP) |
| GEF OP #: | LDCF | Focal Area(s): | Climate Change Adaptation |
| GEF approval date: | April 2009 | GEF Strategic Priority/Objective: | Least Developed Country Fund - Adaptation |
| Expected Start Date: | June 2011 | Actual start date: | September 2011 |
| Planned completion date: | October 2015 | Actual completion date: | 31st December 2017 |

| | | | |
|---|---|---|---|
| Planned project budget at approval: | US$ 4,456,500 | Total expenditures reported: | Expenditure as of June 2013 – US$ 139,927.25<br>Expenditure as of June 2014 – US$ 763,763.76<br>Expenditure as of June 2015 – US$ 1,236,345.49<br>Expenditure as of March 2017 - US$ 1,559,307.90<br>Expenditure as of December 2017 –<br>US$ 1,650,801.51 |
| GEF Allocation: | US$ 1,735,000 | GEF grant expenditures reported as of [Dec 2017]: | US$ 1,650,801.51 |
| PPG GEF cost: | US$ 50,000 | PPG co-financing: | N/A |
| Expected MSP/FSP co-financing: | US$ 2,721,500 | Secured MSP/FSP co-financing: | Co-financing as of June 2014 – US$ 318,000<br>Co-financing as of June 2015 - US$ 676,000<br>Co-financing as of Dec 2017 - US$ 1,999,000 |
| First Disbursement: | 29 September 2011 | Date of financial closure: | December 2018 |
| No. of revisions: | Three budget revisions | Date of last revision: | April/May 2016 |
| Date of last Project Steering Committee (PSC) meeting: | August 2015 (Ad hoc PSC - November 2015) | | PSC has to meet to approve the Final Project Report and the Terminal Evaluation report, once these are finalized. |
| Mid-term review/ evaluation (planned date): | September 2013 | Mid-term review/ evaluation (actual date): | May 2014 |
| Terminal Evaluation (planned date): | November 2015 | Terminal Evaluation (actual date): | Nov 2017 to April 2018 |

## *EVALUATION OVERVIEW*

1. This Terminal Project Evaluation was undertaken by the Evaluation Office of UN Environment to assess the effectiveness of the Lesotho adaptation project and the likely future impact on the country's adaptive capacity, in particular the use of climate information to ensure continued and resilient development in the country in spite of threats from erratic weather and changing climatic conditions. The project objective was to develop and strengthen technical and human capacity to facilitate proper monitoring and forecasting of climate change impacts, to enable timely prediction of extreme weather events and to improve planning for climate change adaptation. Building adaptive capacity in Lesotho is important to safeguard current and future Development Planning and reduce vulnerability of livelihoods. This is because the effects of climate change are manifesting in the country, and their impacts are being felt on the economy and livelihoods.

2. In 2011, the Government of Lesotho secured funding from the Global Environment Facility's Least Developed Country Fund to implement the Medium-Sized project, *Improvement of Early Warning System to Reduce Impacts of Climate Change and Capacity Building to Integrate Climate Change into Development Plans*. The United Nations Environment Programme is the Implementing Agency, while the Lesotho Meteorological Services is the Executing Agency, in partnership with the Ministries of Agriculture and Food Security, Forestry and Land Reclamation, and Education and Training. The Global Environment Facility approved the concept in April 2009 and endorsed the Project Document in June 2011. A rapid mobilization followed and full project implementation started in September 2011, with an inception workshop held in December 2011. The project was expected to be implemented in 48 months, to end in July 2015. However, slow implementation in 2015 necessitated two cost neutral extensions. The project closed in December 2017. The total project cost was US$ 4,456,500, which included a US$ 1,735,000 grant from the Global Environment Facility Least Developed Country Fund (LDCF) and co-finance (grant and in-kind) from the Government of Lesotho, totaling US$ 3,042,000. The UNDP-Africa Adaptation Project (AAP) pledged co-finance of US$ 830,000. The Global Environment Facility had earlier provided US$50,000 to finance the Project Preparation (Project Preparation Grant). The original project had targeted a much larger allocation which was unavailable due to limited funds at the Least Developed Country Fund at the time. Although the project was supposed to be scaled back to fit the available budget allocated, it still retained a highly ambitious programme of work.

3. The Project had four components. Component 1 focused on improving the reliability of hydro-climatic data and the capacity of hydro-metrological networks to provide accurate and timely climate information to relevant stakeholders. Component 2 focused on mainstreaming climate considerations into the policies of climate-sensitive sectors[2] to build a stronger basis for resilient[3] development planning. Component 3 piloted adaptation technologies in six most climate-vulnerable villages in three districts; aimed to distill lessons to inform the other components. Component 4 focused on increasing public awareness and engagement and endogenous capacity to manage climate change impacts.

[2] For the purpose of this review, mainstreaming is the concept that brings marginal, sectorial issues into the centre of discussions, thereby attracting attention of politicians, economic resources, and intellectual capacities. Mainstreaming climate risk into climate sensitive policies here means a process of considering the implications of climate risks for all aspects of national development and adjusting development processes and disaster and climate change measures to address these risks. The objective is that these sectors include provisions in their policies to prevent harmful events of climate variability and change by encouraging adaptive planning to be anticipatory rather than reactionary.

[3] Resilience means the capacity of a dynamic system to withstand or recover from significant challenges that threaten its stability, viability. Its ability to rebound or spring back after disturbance. Climate-resilient development means ensuring that people, communities, businesses, and other organizations are able to cope with current climate variability as well as adapt to future climate change, preserving development gains, and minimizing damages.

*EVALUATION METHODOLOGY*

4. The Terminal Evaluation was undertaken in a participatory manner using a mix of desk reviews, in-depth interviews (face-to-face, and by Skype) and physical observation of results on the ground. Disregarding staff of the Project Management Unit and UN Environment, the evaluation held discussions with 282 informants, 171 (61 percent) women, 111 (39 percent) men: 23 of these were technical officers at the ministerial level – 12 (52 percent) men, 11 (48 percent) women. The evaluator visited the six villages piloting adaptation technologies and held in-depth discussions with 256 people (62 percent women, 38 percent men). Youth (men and women below the age of 35) constituted 28 percent of the total number of people interviewed. Although the structured interviews took place in open forums with groups containing men, women and youth, facilitation methods applied ensured that all three groups had the opportunity to respond to each of the discussion questions. During the course of the visits, the consultant visually verified, as far as possible, written and physical project outputs such as results of the trials on the technologies, construction of water tanks, water holes and awareness materials.

*SUMMARY OF THE MAIN EVALUATION FINDINGS:*

5. The overall rating for the project is Moderately Satisfactory. The project delivered 92 percent of the outputs and registered significant results in three components. It made a significant contribution to mainstreaming climate risk into development processes, by responding to the opportunistic rise in demand for climate information generated by the Ministry of Economic Planning-led formulation of National Climate Change Policy, approved by Parliament and Cabinet in December 2017. It provided policy briefs with recommendations for mainstreaming climate risk into ten climate sensitive sectors: among them the Ministries of Forestry, Range and Soil Conservation, Water, Agriculture and Food Security, Local Government and Chieftainship Affairs, Defense and National Security, and Development Planning. The National Climate Coordination Committee established by the project provided an effective mechanism for coordinating the climate change formulation process broadly. The Committee continued to coordinate the now approved policy formulation process and has mobilized resources to finance its operations post the NAPA project.

6. Although there was no baseline assessment of the levels of awareness of climate change issues at the beginning of the project, or during the implementation, it is likely that the project made significant contributions to increasing public engagement in the climate change debate in the country. Although it could not influence the modification of university education curricula, it developed a protocol for integrating climate issues into the curricula of primary and secondary schools; this protocol is being tested in 56 schools and has already been adopted by the Ministry of Education and Training, via a Memorandum of Understanding, which will continue its application post the NAPA project. Debate on climate change issues among the public has increased, driven by the increased reporting on climate change by journalists trained by the project, and driven by the response of the government to the drought of 2015 to 2016, and the formulation of the national climate change policy. Although no assessment of changes in levels of awareness of climate change issues was undertaken at the national level, 95 percent of respondents in the six villages reported being more aware of risks and opportunities of climate change, and receiving regular weather forecasts and early warning messages.

7. The project delivered six fully automated weather stations, supported by 20 trained individuals in weather related techniques. While this has increased capacity of the meteorological services to access more accurate climate information, six weather stations are too few to make significant change in the country's weather monitoring system. Indeed, 60 percent of those receiving early warning messages in the six villages still find the information inaccurate for their localities and do not yet use it in decision-making. The project also developed vulnerability maps and assessment reports of the three district councils. It piloted a wide range of adaptation technologies with the most vulnerable communities in six villages from the three most vulnerable Districts. However, despite early success with the trials, the majority of the technologies have

failed and the lessons from the experiences are yet to be analyzed and shared. Lessons from most of these trials did not inform the climate change policy formulation process or content.

8. The project aligns closely with the Climate Change objective of UN Environment's 2010 – 2013 Medium Term Strategy, contributing to three of the six thematic areas of the 2010-2011 Program of Work. It aligns closely with the three Global Environment Facility -Least Developed Country Fund Climate Change Adaptation Focal Area Objectives 1 (reducing vulnerability), two (increasing capacity), and three (technology transfer). It has relevance to regional climate change issues, closely aligning with the objectives of the COMESA Climate Change Programme and the Southern Africa Development Community led climate change adaptation and early warning options for the region. Nationally, it implements the third and fourth priorities of the National Adaptation Plan of Action and contributes to the objectives of the country's Vision 2020 and the National Disaster Management Plan. The Terminal Evaluation finds that while the 2015-2016 drought affected achievement of results for Component 3, it increased public engagement in the national debate on climate change.

9. The Terminal Evaluation finds that although the sustainability of project outcomes is highly dependent on social/political factors and sensitive to institutional support, there is strong ownership, interest and commitment among stakeholders and government, which extends to the levels of government with the mandate and power to sustain outcomes. These conditions are likely to secure sustainability, unless there is change in the current government policy and political will to mainstream climate risk into development. In addition, the National Climate Change Committee provides a mechanism to continue advocating and coordinating climate change initiatives, within the implementation of the recently approved National Climate Change Policy. In addition, sustainability of the outcomes is highly dependent on securing funding in the future. Fortunately, the National Climate Change Policy formulation process absorbed the outcomes of Component 2, the Ministry of Education and Training has absorbed outcomes of Component 4, and the government has formulated a concept for Phase II (submitted to the Global Environment Facility) to secure funding to further improve climate information institutions and practices in the country. However, an exit strategy is needed for handling the outcomes of Component 3.

10. The project design was informed by lessons from many projects, including the Africa Adaptation Programme and the National Adaptation Programme of Action. The project design was however highly ambitious for the timeframe and budget; each component could easily constitute a project. This was exacerbated by a mismatch between the approved budget period (three years) and work programme (four years). Important outputs of Components 1 and 2 had no budget allocation: expected to be financed through co-finance. The strategy for implementation of the components needed a rewrite during the inception period of the project to provide clarity. Risks and their mitigation measures had been identified: however, two important assumptions left out of design affected achievement of results: occurrence of droughts for Component 3 and ability of the Lesotho Meteorology Services to influence other powerful Ministries to change their policies.

11. Project financial management followed UN Environment guidelines although procurement followed government procedures. The PMU revised the budget several times, with the approval of the PSC and UN Environment, to cater for refinements made to the logframe activities and outputs. This enabled adaptive management, necessary to cope with implementation challenges as they unfolded, over the course of the project. The project experienced excellent financial management until end of 2014, which evidently facilitated speedy and smooth implementation. However, staff turnover in all the institutions involved in the project caused a change in management style after 2014. Errors in the third and fourth quarterly financial reports of 2015 caused delayed disbursements in 2016, which contributed to the necessity of two cost neutral extensions requested in February and November 2016. The project underwent independent audits in 2012, 2013, 2014, and 2015, without any adverse findings. However, the 2014 audit report highlighted the lack of co-finance, and recommended that the project management pursue the necessary co-finance to enable the project to meet its financial obligations. Consequently, only 43.6 of the Grant co-finance was mobilized, all of it from government. The Grant co-finance from

Africa Adaptation Programme was not provided. Overall, 73.5 percent of total (Grant and in-kind) co-finance was mobilized (Table 13 and Annex 8).

12. The project stakeholders applied the following measures to ensure cost-effectiveness: Project Management Unit sat in the Lesotho Meteorological Services and was supervised by the Director, who was also the National Project Director. This guaranteed the project had the direct attention of senior management. It piggybacked on the Ministry of Development Planning-led national climate change policy formulation process to mainstream climate risk into sectors who the Meteorological Services would otherwise not have influenced. The project engaged the Ministry of Education and Training in the post project pilot testing of the Protocol for mainstreaming climate change into the education curriculum, securing the sustainability of results of Component 4 at minimal cost to the project. This notwithstanding, efficiency of project management was low. Although the Global Environment Facility approved a 36-month budget with a 48-month work schedule, implementation took 72 months following two cost neutral extensions, granted in February and November 2016. This necessitated spreading the budget for fixed costs over 72 months, instead of 36. Delayed implementation can be attributed to inadequate clarity of the implementation strategy at design stage, ambitious project design, critical grant co-finance not availed in accordance with the overall project work plan, high staff turnover in all the institutions supporting the project, and financial reporting errors in 2015, which caused delayed disbursement in 2016.

13. The project monitoring and evaluation followed UN Environment standard procedures, which are in line with those of the Global Environment Facility. Although the project had no monitoring and evaluation action-plan, the six-monthly reports captured project progress until 2014. Together with the annual Project Implementation Review reports, they provided a platform for stakeholders to discuss progress and implementation challenges, and to find solutions. The project has produced a number of good quality technical reports, in which data is gender disaggregated to the greatest extent possible. With the exception of reports relating to Component 3, the content of the technical and monitoring reports largely confirm the state of achievements by the project reported to the evaluator by the respondents to the evaluation questions. The Mid- Term Review conducted in 2014 recommended an exit strategy, among other things. Although the original M&E plan was relatively basic and at times difficult to use, it was adequate, especially because the inception period provided for its revision. However, the monitoring function was under funded in the project budget (at under three percent of the budget instead of three to five percent), with the expectation that it would be funded via co-finance.

14. The project was not subjected to a gender scoring: however, if it had been it would most likely have been a score of zero – meaning gender relevance is evident but not at all reflected in the project document. Project formulation was not informed by a specific gender assessment and it did not have a specific strategy for mainstreaming gender into project implementation. Although some reports provide statistics on men and women, especially on training, reporting along gender lines is not systematic because the indicators and targets are not gender disaggregated. There are high levels of country ownership and driveness and adequate level of communication and public awareness.

15. The Terminal Evaluation process identified several lessons and recommendations, detailed in the sections below.

## LESSONS

16. **Lesson 1:** Although the NAPA project did not achieve the exact target on delivering a National Policy on Adaptation, it did provide inputs for Lesotho's climate change policy, which include both adaptation and mitigation. Adaptation is a cross cutting challenge which needs to be mainstreamed in all the ministries responsible for climate sensitive sectors. While the parent ministry of the Lesotho Meteorological Services could review policies of other ministries, it does not have the political wherewithal to enforce mainstreaming in larger ministries such as Finance, Development Planning, etc. Indeed, while all these ministries can collaborate and develop a draft

policy, the Cabinet has the mandate for approving all policies in the country, and allocating budgets for implementation. It is wiser for a project to set a target of an approved policy with finances to implement the policy provision. Nevertheless, the NAPA project was timely, as the country started a process of developing a National Climate Change Policy soon after project implementation started, spearheaded by the powerful Ministry of Development Planning. This created a demand for climate information as all the ministries had to review their policies to identify measures to integrate climate risk into the policies. Timing of a critical input into a national process can be a key determinant of success for a project. While it would have been difficult for the project to deliver a national adaptation policy due to the limited budget and influence over policy changes of other ministries, the support it provided to the review of the policies of other ministries played a catalytic role in increasing public engagement in the policy and climate change discourse.

17. **Lesson 2:** Three important outputs had no project budget allocated and were expected to be financed by co-funding, yet the project did not have a specific strategy of mobilizing the co-finance in tandem with the project work plans. Although about 25 percent of co-funding was realized, including the three additional automated weather stations, there was shortage of funds for designing and implementing a targeted early warning system, which was supposed to be piloted in six villages. It is therefore risky to allocate co-finance budgets to important project interventions without a specific strategy for mobilizing the co-finance in synchronicity with the project workplans.

18. **Lesson 3:** Closely related to the issues outlined in Lesson 2 – this project was only part of a larger project first designed for a much larger budget; which had to be scaled back to fit the available budget allocated by the Least Developed Country Fund at the time. However, the process of scaling back led to a program of work that was not adequately funded. Indeed, the Global Environment Facility approved a four-year work project with a budget for three years. The project components therefore required further interpretation and re-write to identify practical implementation strategies and actions. It is critical to align a project strategy with the available resources.

19. **Lessons 4:** Under Component 3, the project expected to pilot test adaptation technologies, learn lessons, and distil them in the form of policy recommendations, which would influence the content of the Adaptation Policy (Component 2) and the awareness raising strategy (Component 4). This was highly ambitious given that the project had to start by identifying project sites, mobilize communities, and implement the trials, while the processes of policy formulation and awareness raising were on going in parallel. It is important to synchronize project results that build on each other adequately. Failure to do so weakens project design. A review of adaptation best practices from the region and globally might have been more appropriate given the scope and budget of the project, and the fact that such measures need to be proven successful over a period of time before they qualify as best practices for upscaling.

20. **Lesson 5:** The adaptation trials under Component 3 were conducted under very difficult conditions, targeting the most vulnerable households in the six most vulnerable villages of the three most vulnerable districts. No control trails were implemented under less difficult conditions to provide a counterfactual. Despite showing early signs of success, most of the initiatives had failed by the TE. The failure can be attributed to a combined effect of weakness in the design of the trials, the drought of 2015-2016 and the lack of project funds to follow up in 2016, occasioned by disbursement delays. The cost benefit analysis proposed in the project, but not yet undertaken, should provide clarity on the cause of the failure and provide recommendations for further adaptation work in Lesotho and globally. The lesson here is that when adaptation technologies are trialed in extreme conditions without control trials, it is difficult to determine what drives failure or success.

21. **Lesson 6:** The communities and civil society were not involved in planning the trials of the adaptation technologies, a fact they recognized as contributing to the limited success of these

trials (Component 3). Community involvement in all aspects of planning adaptation technologies is critical for achievement of results and sustainability.

22. **Lesson 7:** Although the project attempted to report along gender lines wherever possible, this was made difficult by the fact that the project design was not informed by a gender analysis, the project did not have a strategy to mainstream gender in its implementation, monitoring and evaluation. It is recommended that the Phase II design be informed by a specific gender strategy which should be used to systematize gender mainstreaming in both project implementation and M&E.

23. In summary, although the project design was ambitious for the budget available and implementation took twice as long as the original plan, the project delivered significant results, especially in policy and advancing public engagement in climate change debate. The project implementation arrangement was largely suitable; however, involving civil society based in the three districts would have increased the cost effectiveness of Component 3. Although the adaptation technologies trialed by the component failed, the project should still undertake the planned cost benefit analysis and generate conclusions to inform further planning of adaptation projects and programs. The Phase II project should provide further support to improving capacity for climate information and early warning systems. Further funding should be mobilized to support the roll out of the program of implementing integration of climate change issues in the curricula of primary and secondary education.

## RECOMMENDATIONS

24. **Recommendation 1:** The Terminal Evaluation finds that there was inadequate understanding of the capacity required in the partner ministries for effective implementation, because no formal capacity assessment was undertaken during project design. Although most Ministries with the mandate for project related activities are willing to lead implementation of relevant components, they do not always have the capacity to do so within the constraints of a project. A formal capacity assessment, using standard Capacity Score Cards, provides an opportunity for internal reflection by the partners (such as the Ministries and others) and identification of a capacity-building program for the project. The Terminal Evaluation therefore recommends that institutions involved in the Phase II project go through a formal capacity assessment during the design of the project, to allow those to be involved to understand their capacity gaps in relation to the project, in addition to providing baselines for monitoring capacity development components.

25. **Recommendation 2:** The six automated weather stations delivered and the 20 technical staff whose skills were upgraded by the delivered by the project are too few to make significant improvements in the capacity of the Lesotho Meteorological Services to monitor weather and provide accurate and timely early warning services and other climate information. The Phase II Project (currently being designed) should build on the successes of the NAPA project to expand the coverage of automated weather stations in the country. The number of the necessary stations should be determined through an assessment of the minimum coverage (as well as the budget). It should also include a skills development component (via co-finance), at both technical and community levels, preceded by capacity assessments of potential partners. This should include increasing the number of climate change scientists in the country, at the Bachelors and Master's Degree levels.

26. **Recommendation 3:** The project has entered into an agreement with the Ministry of Education to continue the piloting of the protocol for integrating climate change issues into primary and secondary school curricula. The 2016 delay in disbursement affected the timely testing of the protocol. While the Ministry of Education has a budget for the piloting Phase, it may not have adequate resources to roll out of the results of the testing nationally. If the Phase II project cannot support the education component, both the government and the UN Environment should mobilize further funding to support the integration of climate change into the education curriculum. Further work on the issue should include an assessment of the levels of awareness and engagement of education sector stakeholders on climate change debate.

27. **Recommendation 4:** The project monitoring and evaluation plan was both simple and underfunded. The project did not have a monitoring action plan, which limited the use of monitoring information for adaptive management. This may have contributed to the failed trials of adaptation technologies. The Phase II project should allocate an adequate budget to monitoring and evaluation (between three and five percent of total budget) and develop a project-performance monitoring plan during project design. This action plan should map out actual monitoring processes for each indicator. It should show what data would be needed for each indicator (indicating gender disaggregation where necessary), data collection methods, frequency of data collection and the budget needed, person responsible for collecting this data and how the information would be processed and utilized. When applicable, additional gender specific indicators should be developed.

28. **Recommendation 5:** Despite showing early signs of success, many of the adaptation technologies faltered, and had failed by the time of the Terminal Evaluation. More than 90 percent of the trees and fruit seedlings died, more than 80 percent of the higher value grass died, more than 70 percent of the chickens died, and 75 percent of the drought tolerant seeds lost due to the 2015-2016 drought. Two out of the six villages reported using the grazing plans or having an active Grazing Association; however, their use was suspended following the 2015-2016 drought. Construction of the water tanks is yet to be completed in three (of four) villages. The two waterholes desilted by the project had silted back, with community members reporting that they stored water for only a few months in a year. There was evidence of re-emerging bush in the previously cleared grazing areas and no evidence of uptake of stone lining demonstrated by the project. However, the keyhole gardens were thriving in all six villages and only two rams had died (from the original herd of ten), although challenges of circulating the offspring as well as sharing the original rams have emerged. Although lessons from previous projects informed the choice of adaptation technologies to be trialed, there is no mechanism of sharing this information with the projects/institutions that generated the lessons, losing a chance for debate about the circumstances under which such technologies can succeed, curtailing opportunities for incremental learning by the broader adaptation stakeholders.

29. The Terminal Evaluation argues that: i) the failure of the adaptation technologies trialed is not necessarily a failure of the project; trials, by nature, can go either way. However, the failure to capture the lessons to inform future adaptation programs and policy process is a project failing. The adaptation technologies were trialed with the most vulnerable members of the community in the most vulnerable villages of the most vulnerable districts. Without control trials under less harsh conditions, it is difficult to draw conclusions on what caused the failure: whether the trials failed because the adaptation tool box of Lesotho is weak; or whether the climate is getting more unreliable; or whether the technical support provided was inadequate, especially during 2016 when the project run out of funds; or whether the failure is a common occurrence once the project funding ends. The project should take this experiment to a conclusion; undertake the cost benefit analysis and provide lessons for future adaptation programming. There is also a need to assess the rate of success of trials of such adaptation technologies under similar conditions. This leads to Recommendations 6 and 7: the ministries responsible for the trials should undertake a cost-benefit analysis, draw conclusions, and disseminate lessons. This ought to be supplemented by a broader assessment of sustainability of impacts from adaptation projects closed for longer than five years, drawn from past portfolios of all the Implementing Agencies of the Global Environment Facility Adaptation projects, as well as those financed by other donors. The Phase II project design and implementation strategy should provide guidelines on how a project would formally interact with those projects providing lessons to its own design to the extent possible. This would provide practical guidance for project managers and stakeholders to continue the discussions on lessons. This is important for incremental learning and knowledge exchange, critical because the lessons do evolve and can change direction.

30. **Recommendation 6:** Related to the above – the sustainability of the adaptation trials is in doubt. Those participating gave two competing, perhaps even contradicting responses/messages regarding the sustainability of the initiatives. Perhaps colored by the failure towards the end of

the project of some of the adaptation technologies trialed, the respondents unanimously reported that they had no plans of sustaining drought tolerant crops, trees and fruit trees, poultry, range/brush clearing, water holes desilting, or stone lining for soil erosion control). However, they would continue with the keyhole garden and the breeding rams. At the same time, they sent very strong request for further assistance with adaptation technologies, stating clearly that awareness of climate risks and its opportunities is not useful unless accompanied by concrete, workable adaptation measures. Four issues came out clearly as the possible cause of this duality: a) Communities had not been involved in the choice of adaptation technologies to be trialed in their areas. For example while they recognized the potential of trees and fruits, they said they would have picked completely different varieties; b) the trials utilized a 'pay-for-work' model. While this created employment and increased household incomes for the participating members, it also created a disincentive to do further maintenance work without additional pay. This limited local level upscaling as well as long-term maintenance of, for example brush clearing, further desilting of water holes and construction works of the water tanks (the project budget catered for machinery but not the labor by local communities). This further supports the necessity and urgency of conducting the cost benefit analysis of the trials and to capture lessons to inform further adaptation programming.

31. **Recommendation 7:** While the LMS was mandated to coordinate the execution of project activities (with additional responsibilities for executing Components 1, 2 and 4), the original PMU staff members held non-permanent staff positions. While this provided the PMU great flexibility and motivation for performance, it also somewhat isolated the PMU from the rest of the Ministry. Allocating LMS staff to the PMU positions can however be a double-edged sword, if appointed staff do not have project management skills, and/or no provision is made to upgrade their skills. This was demonstrated by the change in project performance since 2015, when project management was taken up by LMS staff. The situation is exacerbated by staff turnover; the project has been managed by two different Directors of LMS (who is also the National Project Director), three Task Managers (TM) (UNEP) and two Chief Technical Advisors. The projects should provide skills development to the PMU to ensure smooth effective management and achievement of results.

# 1. Introduction

1. The Global Environment Facility Secretariat approved the Lesotho NAPA project on 15th June 2011: implementation of the four-year project (number LDL/00398) began on 29th September 2011, with a targeted closure date of 31st July 2015. However, a combination of factors[4] led to two cost neutral extensions, pushing the completion date to 31 December 2017. The project's intention was to establish enabling conditions for averting negative impacts of climate change in Lesotho. It therefore sought to mainstream climate risks into policies of climate sensitive sectors, to increase capacity for climate monitoring and early warning services and to increase public engagement into the climate change discussions. The project implemented the third and fourth priorities of the National Adaptation Programme of Action (NAPA): i) capacity building and policy reforms to integrate climate change into sectoral development plans; and ii) improvement of early warning systems against climate change induced disasters and hazards.

2. The project is in line with the Climate Change objective of UN Environment's 2010 – 2013 Medium Term Strategy (MTS), contributing directly to three of the six thematic areas: a) adaptation planning, financing and cost effective preventative actions are increasingly incorporated into national development processes, supported by scientific information, integrated climate impact assessments and local climate data; b) improved technologies are deployed and obsolescent technologies phased out; c) policymakers and negotiators, civil society and the private sector have access to relevant climate change science and information for decision making. The project contributes to the first and fifth strategy of the adaptation program of the 2012 -2013 Program of Work (POW). These are: a) an ecosystem-based adaptation approach is incorporated into country development planning and policymaking, based on scientific assessments, policy and legislative advice and lessons learned from pilot projects supported by UN Environment and adaptation experiences, including an ecosystem-based approach, showcased at the global level. Here it contributes to Indicator a, and Output e. **Indicator a states "**increased number of countries that integrate adaptation, including an ecosystem-based approach, into their national development plans with the assistance of UN Environment". Output 'e' states **"**climate change assessments and information for decision-making and long-term planning, contributing to indicator" **(e) (**i) states "increased number of sector specific local, national and regional development plans that incorporate climate-related assessment with the assistance of UN Environment". It contributes to three of the LDCF strategic objectives - Reducing vulnerability, Increasing capacity and Technology transfer.

3. Implementation is led by the Ministry of Energy, Meteorology, and Water Affairs (MEMWA) (responsible for Components 1, 2 and 4), in partnership with the Ministry of Agriculture and Food Security (MAFS) and the Ministry of Forestry and Land Reclamation (MFLR) (with joint responsibility for Component 3). The total project cost was US$ 4,456,500, which included a US$ 1,735,000 grant from the Global Environment Facility Least Developed Country Fund (LDCF) and co-finance (grant and in-kind) from the Government of Lesotho totaling US$ 3,042,000. The UNDP-Africa Adaptation Project (AAP) pledged co-finance of US$ 830,000. The Global Environment Facility had earlier provided US$50,000 to finance the Project Preparation (Project Preparation Grant). These details are captured in Table 4.

4. The mid-term review (MTR) undertaken in 2014 captured the following issues. a) It found a significant lag between project approval and actual start of the project: the project was approved in April 2009 but commenced in June 2011. b) Slow inception phase due to slow process of funds disbursement. c) Co-financing was not fully secured as anticipated at project design. d) High turnover of project staff in all the partner institutions, including UN Environment and the Project Steering Committee (PSC).

[4] The factors are ambitious design and slow implementation in 2016, caused by delayed disbursements due to inaccurate financial reports in the two last quarters of 2015.

## 1.1 OBJECTIVE OF THE EVALUATION

5. The project is undergoing a Terminal Evaluation from November 2017 to February 2018, conducted in line with the UN Environment-Global Environment Facility Evaluation Guidelines. The Terms of Reference (Annex 1) details the objectives of the Terminal Evaluation. In summary, the Terminal Evaluation aims to assess – objectively - project performance in terms of relevance, effectiveness, and efficiency; and, to determine its actual and potential outcomes and impacts, including their sustainability. The evaluation has two primary purposes: to provide evidence of results to meet accountability requirements; and, to promote operational improvement, learning, and knowledge sharing through results and lessons. In doing so, the evaluation has identified a series of lessons and formulated recommendations to assist follow-on projects and mainstreaming of project initiatives into the systems and operations of the partner institutions.

6. The evaluation therefore set out to establish whether, overall, the project has improved the reliability of hydro-climatic data; whether it has led to stronger capacity for resilient development planning; whether national policymaking is informed by best practice and local demonstration; and whether it has led to increased public engagement and endogenous capacity to manage climate change impacts. The targeted audience for the Terminal Evaluation includes UN Environment, the Government of Lesotho, Global Environment Facility-Least Developed Country Fund partners, communities who trialed adaptation technologies, and other donors who support/invest in climate change adaptation.

## 1.2 EVALUATION APPROACH AND METHODOLOGY

7. The UN Environment Evaluation Office, which has the overall responsibility for and management of the evaluation, closely supervised the Terminal Evaluation. It was undertaken in a participatory approach using a mix of desk reviews, in-depth interviews (face-to-face, and by Skype) and physical observation of results on the ground. A Theory of Change (ToC) for the project was reconstructed (RToC) using the result statements in the project document, including the logical framework from the 2016 Project Implementation Report (PIR). This RToC was subsequently validated and refined through interviews, further desk review and observations. This refined RToC was then applied to help formulate evaluation questions and to evaluate the project, particularly the assessment of effectiveness, sustainability and likelihood of impact.

8. **Document Review:** The Terminal Evaluation was informed by a review of relevant background documentation, inter alia,

9. The Lesotho NAPA Project Document including the Results Framework, Work Plan, Timetable and Budgets;

    a. The Project Preparation Grant (PPG) proposal of 17 February 2009, submitted together with the Project Information Form (PIF));
    b. Project Cooperation Agreement between UN Environment and Government of Lesotho prepared in September 2011;
    c. Project reports such as Final Report on PPG and correspondence relating to final PPG expenditures;
    d. Quarterly Expenditure Reports, Six Monthly Progress and Financial Reports, Fixed Asset Report;
    e. Mid-term Review of December 2014;
    f. Project documentation related to its activities, outputs, and deliverables such as the reports of the partner Ministries.

10. **Semi-structured Interviews:** Qualitative evaluation methods were primarily used to determine project achievements against the expected outputs, outcomes and impacts. These included the development of a standard questionnaire and discussion guide, which was used in a semi-structured

way in face-to-face and Skype interviews. The semi-structured guide was designed to provide the evaluator with information from a cross section of project stakeholders on the key evaluation questions. As far as possible information was triangulated (i.e. verified from different sources). In addition, the Evaluator worked with the Project Steering Committee (PSC) and the Project Manager to undertake a quasi-quantitative evaluation of progress achieved, measured against outputs and activities. Other respondents included the project management staff, project implementation team of the Ministries of Forestry and Land Reclamation; Agriculture and Food Security, and members of the communities that participated in the piloting of the adaptation technologies. Unfortunately, the UN Environment Task Manager and the Chief Technical Advisor (CTA) left the project just before the start of the evaluation: they were however consulted via skype and email. Annex 2 contains a list of the persons consulted for the Terminal Evaluation. While every effort was made to reach both men and women, the respondents to the evaluation were predetermined by those participating in the project. Fortunately, about 40 percent females attended the meetings with the partner ministries and the debriefing meeting with the PSC (List in Annex Two). All conversations and interviews were recorded and are available as an audio file on request.

11. **Site Visits and Physical Observations:** The evaluator visited the six villages piloting adaptation technologies and held in depth discussions with over 300 people (60 percent women, 40 percent men). Although the structured interviews took place in open forum with groups containing men, women and youth, facilitation methods applied ensured that all three groups had the opportunity to respond to each of the discussion questions (synthesis in the Table 1, List in Annex 2, and schedule of the evaluation in Annex 3). During the course of these visits, the consultant visually verified, as far as possible, written project outputs such as results of the trials on the technologies, construction of water tanks, water holes and awareness materials. At the conclusion of the country visit, the Evaluator discussed preliminary findings with the Project Steering Committee (PSC) and the key individuals involved in project management. This involved a PSC meeting and meetings with members of Lesotho Meteorological Services (LMS). The Evaluator outlined the preliminary findings in terms of the strengths and weaknesses of the project performance and received comments. This process provided yet another avenue for triangulation, generating additional information and/or validating the findings. Annex 10 summarizes the comments received and the responses, while Annex 11 presents the rating of the quality of the terminal evaluation process and report by the UN Environment.

***Table 1: Synthesis of the Terminal Evaluation respondents***

| Type of meeting | Who | Numbers | Percentage |
|---|---|---|---|
| Partner Ministries | Women | 4 | 44% |
| | Men | 5 | 56% |
| | **Total** | **9** | |
| PSC Debriefing | Women | 8 | 57% |
| | Men | 6 | 43% |
| | **Total** | **14** | |
| Six villages | women | 159 | 62% |
| | Men | 97 | 38% |
| | **Total** | 256 | |
| | Young women | 43 | 27% of women were below the age of 35 |
| | Young men | 29 | 30% of men were below the age of 35 |
| | **Youth total** | **72** | 28% of participants were below the age of 35 |

## 1.3 MAIN EVALUATION CRITERIA AND QUESTIONS

12. The evaluation assessed project performance in line with the OECD criteria of relevance, efficiency, effectiveness, outcomes and impacts (actual and potential) and their sustainability. This was guided by the UN Environment Evaluation Policy and Programme Manual. An evaluation matrix was compiled during the inception period and approved along with the Inception Report (of November 2016). The evaluation matrix contained the questions utilized in the outcome assessments section. The matrix (and the questions) were refined during the evaluation and updated using the new UN Environment Evaluation Criteria Rating Guidelines. The evaluation questions also integrated key strategic questions as outlined below.

***Improved reliability of hydro-climatic data***

a. Has the project helped Lesotho to effectively upgrade its climate-monitoring network?
b. Was this strategy effective in improving climate monitoring, prediction and early warning systems in the country?
c. Is there any early evidence that the data collected through these networks has been used in decision making including national policymaking?
d. Who were the critical actors in the process? How can stakeholders upscale the results in order for the second phase of the project to set up a successful national-level monitoring system? What were the key drivers and assumptions required to influence decision-making?

***Stronger capacity for resilient development planning***

a. Has the National Climate Coordination Committee (NCCC) set up under this project successfully contributed to Lesotho's long-term adaptation planning under the National Adaptation Plan process? What is the sustainability outlook of the NCCC, will they keep meeting once the project is over?
b. Have stakeholders developed policy documents and recommendations under the project? How did these policy documents influence local and national policy/decision making in the different sectors of the country?

***National policy-making informed by best practice and local demonstration***

a. What is the sustainability of the on-the-ground interventions – adaptation technologies being trialled on the ground? Will the villages be using these past the end of the project as well as lessons learned?
b. What strategy is capturing and disseminating best practices and lessons learned on resilient rural development?
c. Has the project communicated lessons learned from the demonstration sites to relevant local and national actors?
d. Is there any early evidence that these best practices influenced local and national policy/decision-making?

***Increased public engagement and endogenous capacity to manage climate change impacts***

a. Were the appropriate stakeholders involved in the implementation of the selected strategies?
b. Did gender play a role in the success of the project? How are women involved particularly in the on-site activities?
c. Is there any early evidence of the increased public awareness and capacity of local communities in pilot sites to identify and manage climate change impacts?

d. Were the strategies the project uses for public awareness and community engagement suitable and effective?
e. Was the integration of climate change issues into educational curricula successful, and what has been the learning outcome of this? Are there plans to roll out the strategy throughout the whole country?

13. These questions built on OECD criteria questions in the Terms of Reference outlined below.

14. **Strategic relevance:** Were the project's objectives and implementation strategies consistent with global, regional, and national environmental issues and needs? Were they in line with UN Environment's Medium Term Strategy and Program of Work?

15. **Assessment of delivery of outputs (**products and services delivered by the project itself) – Did the project deliver all the planned outputs in line with the revised theory of change; and were they of the necessary quality, as well as their usefulness and timeliness. A scale of 1 to 10 was used to capture level of delivery of outputs; 1 being very low levels and ten being fully delivered.

16. **Effectiveness:** Assessment of the attainment of Objectives and Planned Results at three levels: The extent to which the outputs have translated into outcomes – the first-level outcomes the stakeholders expect to achieve as an immediate result of utilization of the project outputs. They are reflected in changes in capacity at individual and institutional levels;

17. **The likelihood of impact:** The Terminal Evaluation adopts the definition of impact as intended and unintended long-term changes in environmental benefits and human living conditions resulting directly or indirectly from the project interventions. Normally, impact takes longer to occur than the lifetime of a project and depends on the presence of several external conditions over which the project has limited or no control. Because this project's baseline information did not include a counterfactual (a comparable situation without the project) at the time of design, and did not have a control group to establish a counterfactual during implementation, there was no reliable information to enable measurement of actual impact of its intervention. For this reason, the Terminal Evaluation only estimated the likelihood or potential for impact, using contribution analysis with the Theory of Change approach. The Terminal Evaluation raised the question of "why" and discussed lessons learned by all participants.

18. **The achievement of the formal project overall objective, overall purpose, goals, and component outcomes:** The Terminal Evaluation assessed the overall achievement using the indicators for achievement proposed in the logical framework, adding other relevant indicators as appropriate. It assessed the actual contribution (positive and negative, intended, unintended) the project intervention made to different groups of stakeholders. It also assessed whether the Theory of Change and results framework of the intervention integrated human rights and gender equity, and the degree to which participating institutions/organizations changed their policies or practices thereby leading to the fulfillment of human rights and gender equity, e.g. new services, greater responsiveness, resource re-allocation, etc.

# 2. The Project

## 1.4 CONTEXT

19. Lesotho, like many countries in the world, is experiencing the effects of climate change[5]: observed changes in the country include perennial springs running dry, recurring droughts leading to a decline in subsistence farming and an increase in seasonal mean temperatures[6]. The Ministry of Energy, Meteorology and Water Affairs (MENWA) has reported a 0.7 degree Celsius increase in seasonal

[5] Lesotho Meteorological Services, 2001. *Climate Change in Lesotho: A handbook for practitioners*. [Pdf]. Available at: http://www.lesmet.org.ls/sites/default/files/publications/cchandbook.pdf [Accessed 29 Sep. 16]
[6] Irish Aid, 2015. *Lesotho Climate Action Report*. [Pdf]. Available at: https://www.irishaid.ie/media/irishaid/allwebsitemedia/20newsandpublications/publicationpdfsenglish/Country-Climate-Action-Reports-Lesotho-FINAL.pdf [Accessed 25 Sep.16]

mean temperatures and has projected an increase of 1.78°C to 2.2°C by the year 2060, for many areas of the country[7]. The country's economy is largely dependent on climate; water is critical for the economy as both a source of energy and an export product to South Africa[8]. Agriculture is the major source of livelihood for the majority of households; therefore, the dependency of the economy on climate increases the country's vulnerability to the current climate change variability and future impacts of climate change[9].

20. Other root causes of vulnerability in Lesotho include poverty among rural communities and the growing urban-rural inequality together with behavioral, environmental, and institutional limitations that plague the agricultural industry. Poverty makes it hard for communities to recover from temporary shocks such as drought-induced crop failures. With agriculture, **environmental limitations** include soil that is prone to erosion due to erratic rainfall and a rugged mountainous terrain, limited land available for cultivation (only nine percent of land in the country is suitable for cultivation and more than 85 percent of the population depends on agriculture as a source of income). There is also limited control of livestock pests and crop diseases causing significant damage to the quantity and quality of produce thereby decreasing revenue. **Behavioral limitations** include the use of agricultural practices that fail to improve land productivity. These practices include biomass removal, poor land preparation practices, planting at the wrong time/month, delayed harvesting, mono-cropping, insufficient weeding and poor use of organic fertilizers. Many communities overstock the rangelands, leading to overgrazing and rangeland degradation. They also farm in marginal and sensitive areas such as wetlands and mountain slopes, which increase the risk of flooding, soil erosion, and deforestation. Another behavioral limitation is the construction of roads in environmentally sensitive areas, without the necessary safeguards.

*21.* Low environmental awareness and concern, poverty and poor living conditions are behind these poor agricultural and environmental behaviors, making it difficult for populations to adopt practices that promote the healthier environments while increasing the adaptive capacity. **Institutional limitations** include a system of land ownership and outdated agricultural policies that distort incentives for the adoption of proper land use practices, improved land management and sustainable management of natural resources. There is also a lack of funding and credit facilities. Inadequate uptake of technology and the dearth of climate information exacerbate the foregoing challenges.

## 1.5 OBJECTIVES AND COMPONENTS

22. The goal of the project was to meet crucial adaptation needs to build Lesotho's resilience in dealing with climate change impacts and to create the right environment to ensure continued development in the country in spite of threats from weather and climatic conditions. The project objective was to develop and strengthen technical and human capacity to facilitate proper monitoring and forecasting of climate change impacts, to enable the timely prediction of extreme weather events and to improve planning for climate change adaptation. The successful implementation of the project would deliver, among other things, a Climate Change Policy that would create a framework to enable the integration of climate change issues into national and sectoral development policies. The project would create ownership of adaptation interventions to ensure their sustained use by educating communities and the public. Finally, it was expected that the project would bridge local and national-level adaptation, in two ways; (i) providing climate information to local users as a means of promoting proactive adaptation and (ii) demonstrating best practices to enable climate-resilient rural development (Table 2). The project intended to enable the country to meet the third and fourth priorities of the NAPA, namely: a) Capacity building and revision of policies so as to reflect

[7] Ministry of Energy and Meteorology, 2015. *Lesotho's Intended Nationally Determined Contributions (INDC).* [Pdf]. Available at: http://www4.unfccc.int/submissions/INDC/Published%20Documents/Lesotho/1/Lesotho's%20INDC%20Report%20%20-%20September%202015.pdf [Accessed 25 Sep.16]
[8] Lewis, F., and Oosthuizen, S. (eds.) (2014). Adapting to a Changing Climate – Integrating Ecosystem and Community Based Adaptation for a Resilient Future. A Study in the Highlands of Lesotho. Institute of Natural Resources NPC. Pietermaritzburg.
[9] Disaster Management Authority (DMA), 2012. Lesotho Rural Livelihoods Baseline Profiles. [Pdf]. Available at: www.heawebsite.org/download/file/fid/140 [Accessed 20 Sep 2016]

the country's need to effectively deal with climate change in sectoral development plans and b) Advancement of an early warning system indicating when to manage climate induced disasters and hazards. Tables 4 to 6 provide the detailed outcomes, outputs and budget distribution.

***Table 2: Project Components, Expected Outcomes and Expected Outputs***

| Projects Components | Expected Outcomes | Expected outputs | Lead institution |
|---|---|---|---|
| 1. Climate monitoring, predicting and early warning | Improved reliability of hydro-climatic data | 1.1 Upgraded and operational climate monitoring network | Lesotho Meteorological Services (LMS), Ministry of Energy, Meteorology and Water Affairs |
| 2. Science-based Climate Change Adaptation Policy and planning | Stronger capacity for resilient development planning | 2.1 Policies or plans in vulnerable sectors integrate climate change concerns | Lesotho Meteorological Services (LMS), Ministry of Energy, Meteorology and Water Affairs |
| 3. Local adaptation | National policy making is informed by best practice and local demonstration | 3.1 Best practices for resilient rural development demonstrated and adopted | Ministry of Agriculture and Food Security/ Forestry and Land Reclamation |
| 4. Public awareness and education | Increased public engagement and endogenous capacity to manage climate change impacts | 4.1 Awareness campaign implemented<br>4.2 Climate change integrated into national education curricula | Lesotho Meteorological Services (LMS), Ministry of Energy, Meteorology and Water Affairs; with |

## 1.6 STAKEHOLDERS

**23.** Table 3 shows the project stakeholders identified during the project formulation phase. The MTR and the Terminal Evaluation processes updated the list of stakeholders. The institutions selected for participation were directly involved in areas relevant to the project strategy. These are: policy formulation, planning and implementation of adaptation programmes in the areas of food production, nutrition and household food security; adaptation of agricultural development technologies; disaster management and early warning systems; prevention and control of environmental diseases; monitoring of weather and meteorological conditions; environmental and wetlands protection and renewal; development of rural water resources; land reclamation, and natural resources management, and conservation.

24. At the local level, communities from six villages in the three most climate vulnerable districts were engaged in trialing adaptation technologies such as water harvesting, crop diversification (fruit trees), tree planting, sorghum growing, sheep breed improvements (for wool production), and poultry keeping. Students and teachers in several primary schools benefitted by participating in the process of developing a curriculum that mainstreams climate change considerations in primary and secondary school education systems. Civil society was noticeably absent from the list of stakeholders. The Prodoc and the MTR reported that the project stakeholders took a deliberate decision to exclude civil society in the implementation, due to their disregard of government procedures in their field operations. As reported in Section 2.5 (Results), the exclusion of the civil society probably compromised sustainability of the project results. This was therefore a missed opportunity because the cost of delivering technical support to communities by civil society organizations based in the districts would have been less costly than by a Maseru based government department. Civil Society Organizations based in districts would have probably have been more in tune with community realities than the Government Department of Research.

***Table 3: Stakeholders and their role in the project***

| Institution | Role and Contribution to the project |
|---|---|
| Ministry of Agriculture and Food Security – Departments of Crops, Agricultural Research, and Agricultural Planning | Executing Agent for Component 3: Lead the trials of the adaptation technologies and contribute to the vulnerability mapping, beneficiaries of training on |

| | |
|---|---|
| | climate risk management mainstreaming, research into resilient crop and livestock opportunities |
| Ministry of Health and Social Welfare – Environmental Health; | Contribution to vulnerability mapping, beneficiaries of training, |
| The Prime Minister's Office – Disaster management Authority, Food and Nutrition Coordinating Office; | Coordination, mainstreaming, participation in training, participation in vulnerability mapping, development of climate policy, revision of disaster management plans; early warning system |
| Ministry of Finance and Development Planning | Participation in training, mainstreaming and development of climate policy, coordination with other projects |
| Division of Environmental Health, Department of Rural Water Supply | Beneficiaries of training and participation in pilot site activities for health monitoring |
| The Ministry of Tourism, Environment and Culture – the National Environmental Secretariat; | Beneficiaries of training; awareness raising, participation in policy development and mainstreaming |
| The Ministry of Forestry and Land Reclamation – the Department of Soil and Water Conservation | Executing entity for Component 3: Participation in pilot activities, implementation of sustainable land management practices and anti-erosion activities and monitoring |
| The Ministry of Energy and Meteorology – Lesotho Meteorological Services | Lead executing agent for the project. Overall coordination and oversight of project activities; executing entity for Components 1, 2 and 4; provision of climate data for vulnerability mapping and research; early warning system Beneficiaries of training; |
| The Department of Water Affairs (Wetlands Unit), and Rural Water Supplies | Executing entity for Component 3; implementation of pilot activities for water management |
| Households in six villages in three districts | Beneficiaries of the pilot interventions on water harvesting, crop diversification (fruit trees), tree planting, sorghum trials, sheep breed improvements (for wool production), chicken trials |
| Students (school children) and teachers in several schools in the three districts | Beneficiaries of the process of developing a curriculum that mainstreams climate change considerations in primary and secondary schools education system |

## 1.7 PROJECT IMPLEMENTATION STRUCTURE AND PARTNERS

25. The Ministry of Energy and Meteorology (formerly Ministry of Energy, Meteorology and Water Affairs) is the National Project Executing Agency. This role is fulfilled through the Lesotho Meteorological Services (LMS), which is the lead coordinator for climate change issues in Lesotho. UN Environment provides implementation oversight, as the Global Environment Fund Implementing Agency. Actual project implementation is spread across several departments, outlined in Table 2. LMS coordinates the overall project and implements activities related to the early warning system and climate monitoring infrastructure (Component 1) as well as leadership for activities in Components 2 and 4 (in conjunction with the Ministry of Education for Component 4). The Ministry of Agriculture and Food Security, together with the Ministry of Forestry and Land Reclamation are responsible for piloting adaptation technologies, distilling lessons, and sharing them widely, to inform policy formulation (Component 3).

26. The Project Steering Committee (PSC), which is a multi-agency body, provides policy guidance to the project implementers, through decision-making support. The PSC's main purpose is to direct the implementation of various components of the project, to review progress reports on the achievement of project objectives and make appropriate recommendations, to mobilize multi-

agency support for the project and its activities, approve activity and financial plans of the project, and to support project planning by bringing in specialized information and experiences. It meets at least twice a year, and more frequently if need arises. The Project Manager (PM) provides Secretarial services to the PSC. The PSC is chaired by the LMS, and comprises representatives from the following ministries and partners:

a. UN Environment representative;
b. Ministry of Agriculture and Food Security – Departments of Crops, Agricultural Research, and Agricultural Planning;
c. Ministry of Health and Social Welfare – Environmental Health;
d. The Prime Minister's Office – Disaster Management Authority, Food and Nutrition Coordinating Office;
e. The Ministry of Natural Resources –the Department of Water Affairs (Wetlands Unit), and Rural Water Supplies;
f. The Ministry of Forestry and Land Reclamation – the Department of Soil and Water Conservation; The Ministry of Tourism, Environment and Culture;
g. The National Environmental Secretariat; and, World Vision representative in Lesotho.

27. Representatives from the Africa Adaption Project and the Disaster Risk Reduction projects have a standing invitation to participate in steering committee meetings. The Ministry of Economic Planning did not participate in the PSC, despite their collaboration with the project. This collaboration was not foreseen during the project design, hence it was not initially identified as a relevant PSC member.

28. The day-to-day management of the project is entrusted to a Project Management Unit (PMU), consisting of a Project Manager, a Chief Technical Advisor (CTA) and Administrative and Financial Officer (AFO) hired on a full-time basis. A sub-group of the PSC, comprised of the PMU and working-level representatives from ministries having responsibility for delivering key components of the project, coordinates, and oversees project activity deliveries. The sub-group meets once a month and is accountable to the PSC through the Project Management Unit. The Project Document had depicted the institutional arrangement in Figure One. However, reading through the text description of the management arrangement, complemented by respondents from the interviews during the Terminal Evaluation, the institutional arrangement is closer to Figure 2.

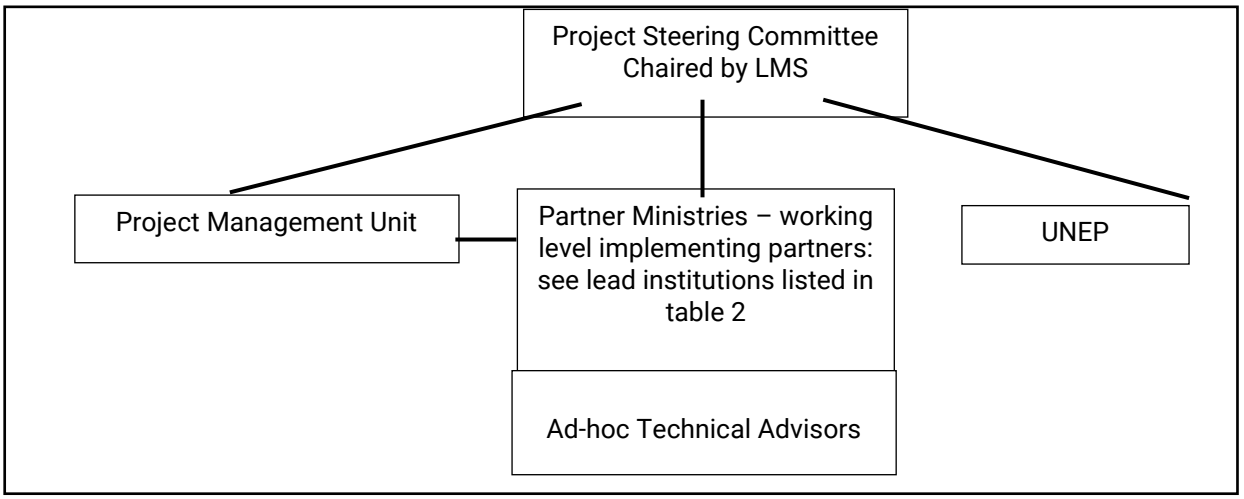



***Figure 1: Project Implementation Arrangements as Outlined in the Project Document***

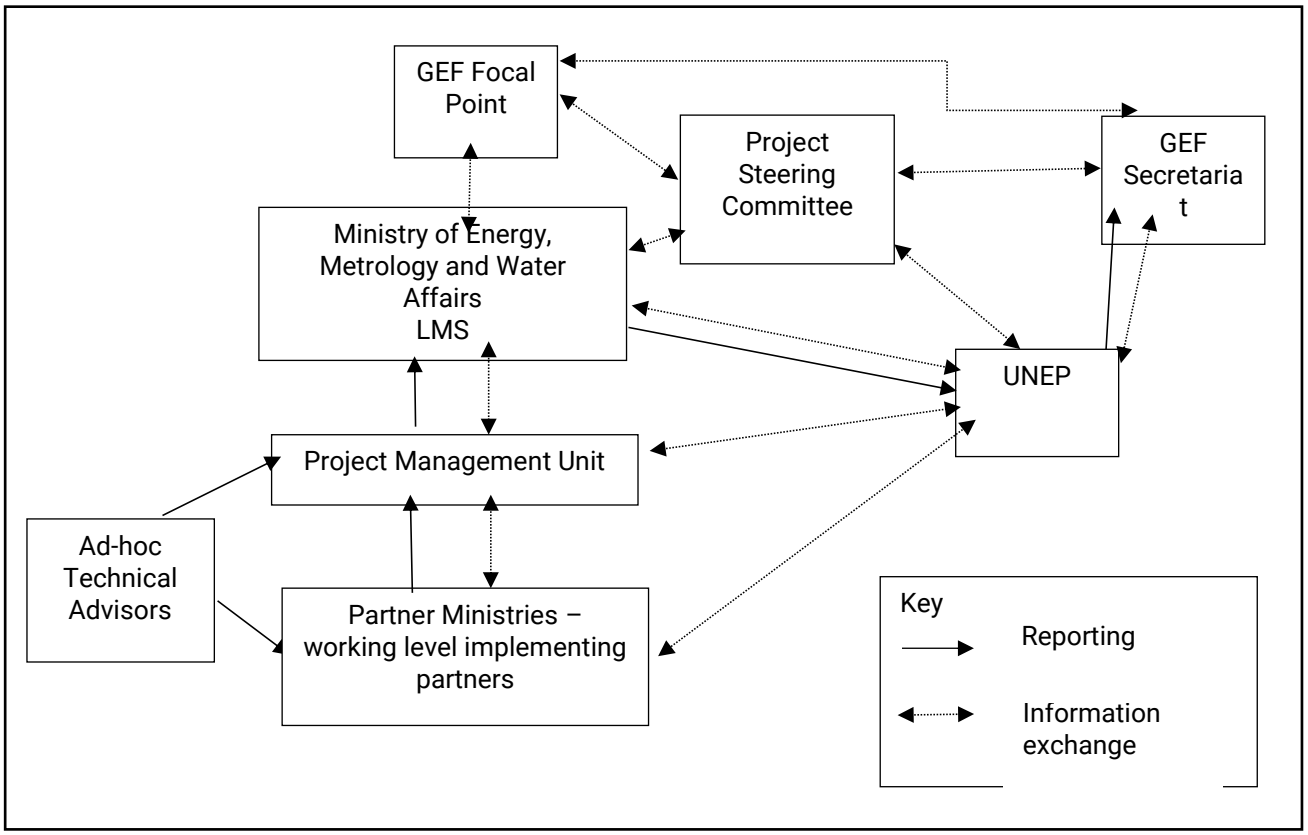



***Figure 2: Reconstructed Project Implementation Institutional Arrangement***

## 1.8 PROJECT FINANCING

29. The total project cost was US$ 4,456,500, which included a US$ 1,735,000 grant from the Global Environment Fund Least Developed Country Fund (LDCF) and co-finance (grant and in-kind) from the Government of Lesotho, totaling US$ 3,042,000 (Table 4). The UNDP-Africa Adaptation Project (AAP) pledged co-financing of US$ 830,000. The Global Environment Fund had earlier provided US$50,000 to finance the Project Preparation.

***Table 4: Project Funding Sources at Design***[10]

| Fund/Contributor | Type of contribution | Amount (US$) | Proportion |
|---|---|---|---|
| Global Environment Fund LDCF | Grant | 1,735,000 | 39% |
| Government of Lesotho | Grant | 1,307,000 | 29% |
| Government of Lesotho | In-Kind | 584,500 | 13% |
| UNDP-AAP Project | Parallel In-Kind | 830,000 | 18% |
| **Total** | | **4,456,500** | |

## 1.9 CHANGES IN DESIGN DURING IMPLEMENTATION

30. Although the project design remained fundamentally unchanged throughout the implementation phase, a parallel process initiated by the government provided an opportunity to modify Component 2, (policy processes). This was the formulation of a national climate change policy, spearheaded by the Ministry of Development Planning. This allowed the project to shift course

[10] Pro doc Pg. 61

from facilitating formulation of an adaptation policy to contributing to the process of the national climate change policy formulation. This was quite opportune because the project was unlikely to deliver a National Adaptation Policy, as argued in the Reconstructed Theory of Change section. It thus undertook a review of policies for five climate sensitive sectors and provided recommendations for mainstreaming climate risks into these climate sensitive sectors. This was perceived as highly valuable by the PSC (which is constituted by members of some of the climate sensitive ministries), as it ensured that the formulation of the national climate change policy was informed by up-to date scientific knowledge on the science of climate change.

31. In addition, the co-finance expected from two sources did not materialize: i) UNDP-Africa Adaption Project (US$ 830,000 was expected as parallel/in kind funding); ii) Government of Lesotho Disaster Risk Reduction Project (US$ 584,500, in kind/parallel funding). This meant that the project could not undertake the rehabilitation and/or acquire/purchase a telecommunication network for data transfer to end users in pilot sites, thus could not pilot test the early warning system in three pilot locations. It seems there was no detailed arrangements of how and when the pledged co-finance would be made available, hence the project did not have adequate ammunition or guidance to follow up on the co-financing pledge.

32. The Project Steering Committee realized that it would be beyond the scope of the project to influence the curriculum development of the universities. Hence, the project scaled down its contribution to only primary and secondary schools (with the approval of the PSC in 2012). In addition, the PMU refined project indicators; it amended 13 indicators, dropped two, retained seven and added 3 new ones. Some of the indicators were disaggregated along gender lines, but not adequately. A detailed report on the refinement of the indicators is in Section 2.8 (Monitoring and Reporting).

## 1.10 RECONSTRUCTED THEORY OF CHANGE OF THE PROJECT

33. The Lesotho NAPA project document does not include a Theory of Change (ToC) as this was not a Global Environment Fund/UN Environment requirement at the time the project was formulated. However, the ProDoc has a Results Framework (project logframe), which identifies the project components, anticipated outputs, and outcomes, including mid-term and end of project targets. The Theory of Change was reconstructed using the project logframe. The Reconstructed Theory of Change (RTOC) was then validated and refined through interviews, further desk review and observations, into the Theory of Change at Evaluation, which was especially useful during the assessment of effectiveness and sustainability. The reconstruction process necessitated an adjustment of the Prodoc outputs and outcomes, to match them to the definitions common to the UN Environment Evaluation process (see Table 5). Similarly, the identification of intermediate states and impact descriptors required a logical extrapolation of the project outputs' mid and end of project targets and outcomes. The identification of the project "drivers" and "assumptions" underlying the results chain logic has also required extrapolation from the Results Framework, component descriptors and the summary of risks and associated management measures.

34. The Lesotho NAPA project mobilizes funding from the Least Developed Countries Fund (LDCF) to finance the implementation of adaptation priorities and to reduce the vulnerability of the economy and livelihoods to climate risks. The project demonstrates the Government's commitment to tackling the challenge of high vulnerability to climate risk, whose negative effects are heavily interlinked with other stressors such as unsustainable use of natural resources (land and water), poverty, and insufficient policies to address climate change risk. This is in recognition of the fact that the land-locked country dominated by a fragile mountainous ecosystem is prone to natural disasters, drought, and desertification, making it particularly vulnerable to current climate variability and future impacts of climate change. Through the project, the LDCF sought to demonstrate the fact that taking early action to address adaptation concerns is cheaper than addressing the damage caused by climate change. It reflects the LDCF's twin objective of reducing vulnerability while simultaneously increasing the adaptive capacity of the country, at all the relevant levels (national, district, village), by financing the implementation of adaptation

measures as part of efforts to foster *climate-resilient development and ecosystem resiliency*. It built on the lessons generated by the LDCF: that protecting resources essential for human development that are threatened by the adverse impacts of climate change (e.g., water resources and drinking water supplies, food security, and health), is more effective and efficient when the international community, vulnerable governments and communities collaborate and define strategies for their protection. This ensures that adaptation becomes an integral part of development, and not an issue addressed in isolation. A measure of the strength of the national and international support to the initiative is the commitment of co-financing from the Japan-funded Africa Adaptation Project (US$ 830,000) and the Government supported Disaster Risk Reduction Program (US$ 584,500). This constituted a total of US$ 1,414,500, against a Global Environment Fund-LDCF Grant of US$ 1,735,000. It is unfortunate that most of the grant co-finance did not materialize. The chapters below discuss the implication of the lack of co-finance.

35. The focus of this narrative is on the results chains and impacts generated by the activities, outputs and outcomes of components and how they collectively contribute to the intermediate results and set the conditions for the eventual realization of impacts.

### 1.10.1 Project Components, Outputs and Outcomes

36. The project identified four impact pathways, each underpinned by a component, an outcome, an output, and a series of activities.

37. **Outcome/impact pathway 1:** Under Component 1 (Climate monitoring, predicting and early warning), the project expected to improve the reliability of hydro climatic data and the capacity of hydro metrological network. This was to be achieved via one output - "Climate monitoring network upgraded and operationalized". This output was to be delivered through three sets of activities, outlined below. It is noted here that when the project was split into two due to lack of funds in the LDCF, there probably was not an equivalent scaling back of the outcome or outputs or targets.

    a. provision of climate monitoring hardware and data treatment software (six new automated weather stations and rehabilitation of existing station, number not provided);

    b. Training (20 LMS technical staff on the operation and maintenance of climate monitoring stations, other technical staff on modelling applications (e.g. crop and agro-hydrological models), vulnerability mapping and downscaling methods; and community members on disaster management and adaptive responses (in cooperation with the Disaster Risk Reduction (DRR) project);

    c. Pilot testing the delivery of an early warning system that contains higher quality, more reliable weather and disaster forecasting in three villages.

38. Four important assumptions underpinned the success of this pathway:

    a. The financial resources mobilized by the project would be adequate to improve the climate-monitoring network. However, an early warning system (EWS) relies on infrastructure such as radio towers, cell phone towers, electrical lines, etc. The budget provided was not adequate to upgrade any of this core infrastructure. Lesotho had 93 weather stations; 13 of which are automated. The project provided six more automated weather stations (AWS) (three from co-finance) and 20 additional staff with upgraded skills. The additional AWS and skilled staff are unlikely to make a significant shift in the reliability of data for the national system due to the dire baseline situation; hence, the result stated in the outcome statement is overly optimistic:

    b. Co-finance would become available on time and in synchronicity with the project implementation.

    c. The procurement procedures would be efficient and deliver the equipment early enough for it to make a change within the lifetime of the project;

d. The project aimed to increase capacity by training and mentoring technical staff on advanced meteorological sciences and techniques. The assumption is that the LMS and other relevant departments have suitably qualified staff available who can absorb and retain the training provided and have the status and job security to apply their experience in the post project institutional environment. This is not a given in Lesotho, where the national budget severely restricts government staff numbers, staff have multiple responsibilities and functions and there is high staff mobility between Ministries. A corollary is the need to repeat training where staff turnover occurs leading to project delays and loss of momentum.

39. A criticism of the assumptions for all the results levels is given in section 2.3 (Quality of Project Design), 2.4 (Nature of External Context) and 2.5 (Overall Effectiveness). This is deemed necessary to avoid repetition in the report.

40. **Outcome/Impact Pathway 2:** The second component was supposed to deliver stronger capacity for resilient development planning. One output was to deliver this capacity, through which the policies of vulnerable sectors would integrate climate change concerns. The output would be produced via four sets of core activities:

    a. Production of GIS-based climate hazard and vulnerability maps (based on productive sectors such as agriculture, water, livestock and forests, to be produced in collaboration with AAP and DRR projects);

    b. Training of staff of sectoral ministries and central planning agencies on vulnerability, including economic aspects of vulnerability

    c. Creation of a climate change coordination committee, which would spearhead/coordinate review of productive sector policies to produce recommendations of integrating climate risks;

    d. Formulation and endorsement of an adaptation policy.

41. Four key assumptions underlie this results chain:

    a. Strong inter-ministerial coordination to enable a coordinated process of policy formulation; hence, a policy on climate change could be formulated within the project timeline and project budget.

    b. The Lesotho Meteorological Services would have the political wherewithal to convince other more powerful Ministries such as Agriculture and Food Security, Planning and Development Planning, Forestry and Land Restoration and others, to change their policies in order to mainstream climate risk.

    c. Policy formulation could be started and completed within 48 months (project duration), and that the project would deliver a finalized policy approved by Cabinet.

    d. Mainstreaming climate risk into policies constitutes the critical component of capacity for resilient development planning.

42. **Outcome/Impact Pathway 3:** The third component was to ensure that national policy-making was informed by the best available adaptation technology and by local demonstrations of its use. One output was to deliver the results: best practices for resilient rural development demonstrated and adopted. The output was to be achieved through a set of four core activities:

    a. Rehabilitation of pastures and rangelands in the three pilot locations using resilient species, rehabilitation of water points and introduction of participatory pasture management, including anti-erosive measures;

    b. Extension of tested and proven alternative energies in the three pilot sites at household level for reduced deforestation, including efficient cook stoves and solar energy and relevant training; and, establishment of a community-based support program for technology maintenance and repair;

c. Dissemination and distribution of available species of resilient livestock and new crops that could become productive under the changing climate change scenarios;

d. Determination of the cost-effectiveness of adaptation measures demonstrated in the pilot sites, to be done via an economic analysis and cost-benefit analysis to ascertain which activities are most suitable.

43. Actual adaptation technologies tested included drought tolerant sorghum, improved wool producing sheep, water harvesting for small scale irrigation, improved breed of chicken that would resist local poultry diseases while maintaining high productivity (eggs/meat) on locally produced feeds, increasing pasture yields through bush clearing, enrichment planting with high yielding grasses and controlling soil erosion, and, diversifying household diets and incomes from fruit trees. It was expected that the trials would be implemented, concluded and lessons generated from them, which would be shared widely at the national level, to inform the policy formulation process, raise awareness and monitor and disseminate weather forecasts (all four outcomes). This was in addition to benefitting local communities, whose resilience would increase, reducing vulnerability to climate change.

44. The key assumptions underlying the results chain here were:

a. The budget provided by the project would be adequate to roll out the testing of these technologies in the three Districts at sufficient scale to make a difference to household resilience;

b. The extension service would have adequate operational capacity to enable a rapid implementation of the pilots, and the generation of lessons, which would be communicated in advance of the policy formulation process;

c. The trials in the vulnerable areas would provide meaningful lessons for the national climate change process without control trials in less vulnerable locations:

45. **Outcome/Impact Pathway 4:** The fourth component was supposed to deliver increased public engagement and endogenous capacity to manage climate change impacts, with contributions from Outcome 3. Two outputs were to deliver these results: awareness campaign implemented and climate change integrated into national education curricula. A set of three activities were, in turn, to deliver the outputs:

a. Contribute to the national awareness campaign by providing messages informed by project activities (on climate change adaptation, adaptation options and early warning systems), including messages channeled through the climate change web-based knowledge platform of the Government of Lesotho;

b. Create a media support function for journalists to report on climate change;

c. Develop protocols for formal integration of climate change into the education curriculum of primary, secondary, university and other post-secondary institutions of learning (jointly with DRR project for primary level) and test it (through developing and launching three pilot courses with volunteer academic establishments at the primary and tertiary levels).

46. Three key assumptions underlie the logic of this impact pathway:

a. Curricular amendment at both primary and tertiary levels would be an easy and inexpensive process that could be achieved by the project with limited funds;

b. Results from Outcome 3 (piloting adaptation technologies in three districts) would be available on time to enrich the awareness raising program and contribute to curriculum amendments;

c. Awareness raising would lead to substantial endogenous capacity to manage climate change risks.

### 1.10.2 INTERMEDIATE STATES AND IMPACT

47. It was expected that the outcomes above would collectively lead to the achievement of the objective (intermediate state), which would in turn contribute to the goal (impacts). The outcomes were expected to deliver three intermediate results:

    a. Demonstrated capacity for monitoring and predicting climate change impacts;

    b. Efficient delivery of early warning for extreme events; and,

    c. Improved local and national planning for adaptation to climate change throughout the country.

48. It was therefore expected that the project would lead to the increased availability of reliable, up to date climate information, which would be delivered through a wide range of avenues. A wide-spectrum of stakeholders throughout the country would take up this information and use it in decision-making, such as farmers and herders (to determine cropping calendars) and departments of planning. The relevant authorities would allocate budgets for financing climate risks in, e.g. extension services. Five key assumptions underlie this results chain:

    a. The provision of reliable, legitimate and timely climate information constitutes the basis of sound agricultural planning, and provides the cornerstone of adaptive capacity;

    b. In order to achieve real and measurable adaptation benefits, interventions in multiple sectors are necessary;

    c. Local interventions demonstrating resilient practices that also generate development benefits can leverage spontaneous replication among communities;

    d. Adequate financial resources would be made available to replicate the successful aspects of the initiatives throughout the country; and

    e. Sharing and learning mechanisms to promote the replication could be identified, put in place and maintained:

49. In addition, the intermediate results are expected to make a significant contribution to the long-term desired change -- resilient development in Lesotho, despite the climate change challenge. Thus, the project is expected to enable the country to meet crucial adaptation needs to build resilience in dealing with climate change impacts and to create the right environment to ensure continued development in the country in spite of threats from uncertain and widely variable weather and climatic change. The key assumptions made here are that:

    a. Improvement in the quality (reliability, timeliness) of climate information and early warning messages would lead to behavioral change; thus most people would change the current mistrust of climate information, and start to use the improved information in decision-making. This is not a given in Lesotho where the translation of knowledge into changed attitudes and practices is hindered by local beliefs. Indeed, a wide variety of explanations for bad weather is believed by many, especially in the rural areas (Box 1);

    b. Climate information and early warning issues would not be politicized. In Lesotho, warnings on extreme events are supposed to be delivered by the Minister, not the technical staff of LMS. This can be easily politicized – as happened during the 2015 drought, where the opposition informed voters in some locations that God was angry with the government, hence the bad weather;

    c. Resources are available for upscaling, and that these resources effectively address non-climate related challenges and vulnerabilities, (e.g. weak extension, inadequate use of inputs in agriculture, overgrazing, human and animal health, limited infrastructure, etc.); and

    d. Short and medium-term climate related weather variability doesn't outpace acquired adaptive capacity. An important driver is that the country has a sustainability mechanism for sustaining the policy process. The National Climate Change Committee (NCCC), a multi-sectoral task

force on climate change and adaptation, is up and running and many development partners have demonstrated commitment to supporting it via the allocation of funds. This will be a critical driver of sustaining impacts at the national policy level.

***Box 1: Sample of local beliefs related to weather patterns[11]***

Sample of local beliefs held by some rural communities related to weather patterns

a. Short mourning for dead husbands brings bad weather;
b. Washing clothes and hanging them out to dry in the middle of the day can result in bad weather;
c. The bad weather is predicted as a sign of the end of times in the Bible

### 1.10.3 UPDATED OUTPUTS, OUTCOMES, INTERMEDIATE RESULTS AT TERMINAL EVALUATION

50. The process of Reconstructing the Theory of Change shows that the project outputs and outcome statements at the planning stage were highly condensed and can be simplified for the purposes of Terminal Evaluation. This assessment is presented in Table 5, followed by a summary of the simplified outputs and outcomes in Table 6 and visual representation of the Theory of Change at Evaluation, Figure 3.

***Table 5: Comparing Outputs and Outcomes at Design and Terminal Evaluation***

<table>
<tr><td colspan="4">Component 1: Indicative Activities, Outputs, Outcomes, at Design with analysis justifying changes at Terminal Evaluation</td></tr>
<tr><td>Indicative activities</td><td>Output</td><td>Outcome</td><td>Analysis</td></tr>
<tr><td>Identification of specific software, hardware equipment, and associated training to use procured equipment.</td><td rowspan="8">Upgraded and operational climate monitoring network</td><td rowspan="8">Improved reliability of hydro-climatic data and capacity of hydro metrological network</td><td rowspan="8">Output: The output is at a short-term result level, rather than a deliverable from the implementation of the activities. It needs to be unpacked. It has been split into five outputs shown in the Table 5<br><br>Outcome statement: Depicts changes in two areas; reliability of hydro-climatic data; and, improvement in capacity of the hydro metrological network. There was no budget to boost the infrastructure on which early warning systems depend on such as radio towers and cell phone towers. Hence, the outcome cannot be delivered as stated. It has been split into two outcomes showed in Table 5.<br><br>Adequacy of products – Lesotho has 93 weather stations; 13 of which are automated. The project provided six more AWS (three from co-finance) and 20 additional staff with upgraded skills. The challenge of manual weather stations is the reliability of their data.</td></tr>
<tr><td>Rehabilitation and/or acquisition and installation of climate monitoring equipment</td></tr>
<tr><td>Recruitment and training of climate observers and station managers for successful operation and maintenance of climate monitoring stations (20 staff, of which 10 are local personnel)</td></tr>
<tr><td>Acquisition of data treatment software and modelling capacity</td></tr>
<tr><td>Training of Lesotho Met Service and relevant sectoral staff in modelling applications (e.g. crop and agro-hydrological models), vulnerability mapping and downscaling methods</td></tr>
<tr><td>Rehabilitation or acquisition of telecommunication network for data transfer to end users in pilot sites (in cooperation with DRR project)</td></tr>
<tr><td>Pilot test of the early warning system in 3 pilot locations</td></tr>
</table>

[11] Source: Interviews with the local communities during the filed mission: November 2017.

| | | | |
|---|---|---|---|
| Local community training on disaster management and adaptive responses (in cooperation with DRR project) | | | Although the six additional AWS are too few to make significant change in reliability, the outcome statement suggested at Terminal Evaluation is still "improved reliability of hydro-climatic data". |

| Component 2: Indicative Activities, Outputs and Outcomes at Design with Analysis Justifying Changes at Terminal Evaluation | | | |
|---|---|---|---|
| **Indicative activities** | **Output** | **Outcome** | **Analysis** |
| Production of GIS-based hazard maps focused on project zones, sectoral risk and vulnerability maps focused on key productive sectors such as agriculture, water, livestock and forests, including relevant socio-economic data (in collaboration with AAP and DRR projects). | Policies or plans in vulnerable sectors integrate climate change concerns | Stronger capacity for resilient development planning | Output: The output is at a short-term result level, rather than a deliverable from the implementation of the activities. It needs to be unpacked. It has been split into three outputs shown in the Table 5.<br><br>Outcome statement: The outcome statement refers to a much higher level of result that would require intervention in other areas related to capacity building – see Box 2 – that the project had no plans to address. To change capacity significantly for resilient development planning, the country needs to develop capacity in many other sectors. Using the Standard Capacity Assessment Template to indicate areas which require capacity, shows that capacity would be required in five strategic areas, across three institutional and geographic levels (Box 2). The budget provided and the outputs produced would not make significant capacity changes. However, implementation of the four components and delivering results from the four outcomes would contribute to increased capacity for resilient development in the country. Therefore the Outcome 2 is revised to reflect a more realistic level of achievement and the current statement be upgraded to the medium term result – as refined in the Table 5 (comparing Outputs and Outcomes at Design and Terminal Evaluation) |
| | | | |
| | | | |
| Training of sectoral ministries and central planning agencies on vulnerability, including economic aspects of vulnerability | | | |
| Development of policy documents on the sectoral and economic impacts of CC and analyses of potential maladaptation in key sectoral policies (agriculture, forests, water) | | | |
| Creation and coordination of a multi-sectoral task force on climate change and CCA policy making (in conjunction with AAP) | | | |
| Development of policy recommendations on adaptation and particularly proactive adaptation (Adaptation Policy Frameworks) including input into potential policies and planning frameworks | | | |
| Local and regional consultations forums | | | |
| Integration of CC issues into key sectoral policies (agriculture, water…) and planning frameworks | | | |
| Endorsed Climate Change Adaptation Policy for Lesotho and planned implementation budget | | | |

| Component 3: Indicative Activities, Outputs and Outcomes at Design with Analysis Justifying Changes at Terminal Evaluation | | | |
|---|---|---|---|
| Indicative Activities | Outputs | Outcome | Analysis |
| Rehabilitation of pastures and rangelands in the three pilot locations using resilient species, rehabilitation of water points and | Best practices for resilient rural | National policy making is informed by | Output statement: This is a compound output that needs to be unpacked for the Terminal |

| | | | |
|---|---|---|---|
| introduction of participatory pasture management, including anti-erosive measures | development demonstrated and adopted | best available technology and local demonstration | Evaluation purposes. It has been split to two outputs shown in Table 6.<br><br>Outcome statement: in addition to informing national policy-making processes, implementation of the adaptation technologies would have increased options for addressing/ coping with climate variability at local level.<br><br>It is suggested that the outcome be retained for Terminal Evaluation. The outcome has been refined as shown in the Table 6 |
| Extension of tested and proven alternative energies in the three pilot sites at household level for reduced deforestation, including efficient cook stoves and solar energy and relevant training. Establishment of a community-based support program for technology maintenance and repair | | | |
| Disseminate and distribute available species of resilient livestock and new crops that could become productive under climate change scenarios. | | | |
| Determine the cost-effectiveness of adaptation measures demonstrated in the pilot sites. This will entail undertaking an economic analysis and performing cost-benefit analyses to ascertain which activities are most suitable. | | | |

| **Component 4:** Indicative Activities, Outputs and Outcomes at Design with Analysis Justifying Changes at Terminal Evaluation | | | |
|---|---|---|---|
| Indicative Activities | Outputs | Outcome | Analysis |
| Contribution to the implementation of a comprehensive national awareness campaign focused on climate change adaptation, adaptation options and early warning systems | Awareness campaign implemented<br><br>Climate change integrated into national education curricula | Increased public awareness and engagement and endogenous capacity to manage climate change impacts. | The outputs of the component are meant to increase the public awareness and knowledge of climate risks.<br><br>While awareness of climate change issues (risks, challenges, options) contributes to endogenous capacity12, it cannot alone deliver on endogenous capacity at outcome level. This capacity can increase as a result of all the four outcomes, hence it should be measured at a higher level. Besides, measuring changes in endogenous capacity would require a different set up and indicators than provided for in this project. The outputs have been refined as shown in the Table 6.<br><br>The outcome is rephrased to "Increased public awareness on climate risks" as shown in Table 6. |
| Contribution to the climate change web-based knowledge platform for the Government of Lesotho, focusing on Early Warning systems and adaptation technologies and scientific innovations (linked to DRM database) | | | |
| Create a media support function for journalists to report on climate change | | | |
| Conduct a review of opportunities for integrating climate change into primary, secondary and university level curricula using the roadmap for mainstreaming DRR into curricula (DRR project) including documentation of best practices | | | |
| Develop protocol for formal integration of climate change | | | |

[12] UNCRD describes endogenous capacity- building as a process of enhancing developing countries capacity in solving problems based on their wisdom, resources, policies, institutions and social system as well as their own initiatives and governance" (UNCRD, 2014). It is a process promoted by the initiative of local people using local resources based on local culture, traditions, and skills.

| | | | |
|---|---|---|---|
| into curriculum (jointly with DRR project for primary level) | | | |
| Develop and launch three pilot courses with volunteer academic establishments at primary, secondary and university level (jointly with DRR project for primary level). | | | |

***Table 6: Detailed changes to outputs and outcomes with justification for change***

| Outputs at Design | Outputs at Terminal Evaluation | Outcomes at Design | Outcomes at Terminal Evaluation |
|---|---|---|---|
| Component 1 | | | |
| Output 1.1.1; Upgraded and operational climate monitoring network | Output 1.1.1: Six automated weather stations added to the weather monitoring system;<br>Output 1.1.2: Telecommunication network updated/equipped with software for data transfer to three pilot locations;<br>Output 1.1.3: 20 skilled personnel on operation and maintenance of climate monitoring stations and crop and agro-hydrological models), vulnerability mapping and downscaling methods (number<br>Output 1.2.1: End users in three pilot locations receiving early warning messages;<br>Output 1.2.2: Skills amongst community groups on disaster management and adaptive responses | Outcome 1.1: Improved reliability of hydro-climatic data and capacity of hydro metrological network | Outcome 1.1: Improved reliability of hydro-climatic data;<br><br>Outcome 1.2: Increased use of climate information (capacity) in local metrological networks (decision-makers) |
| Component 2 | | | |
| Output 2.1.1: Policies or plans in vulnerable sectors integrate climate change concerns | Output 2.1.1: Six sets of climate hazard and vulnerability maps produced<br>Output 2.1.2: Recommendations for integrating climate risks into climate sensitive sectors produced and shared (how many sectors)?<br>Output 2.1.3: Multi-sectoral task force on climate change and CCA policy making operational and has a financial sustainability plan | Outcome 2.1: Stronger capacity for resilient development planning | Outcome 2.1: National climate change policy formulation integrates current knowledge on climate risks and opportunities |
| Component 3 | | | |
| Output 3.1.1: Best practices for resilient rural development demonstrated and adopted | Output 3.1.1: Five adaptation technologies tested by six villages in three districts and results available (crop diversification, improved livestock breeds, soil erosion control, water harvesting techniques, increasing rangeland productivity).<br>Output 3.2.1: Lessons, cost benefit analysis and recommendations for upscaling of adaptation technologies available as policy briefs (best and worst practices) – on energy options, range rehabilitation, improved sheep and poultry breeds, crop diversification, soil erosion and water harvesting; | Outcome 3.1: National policy making is informed by best available technology and local demonstration | Outcome 3.1: National climate change policy informed by best available lessons on adaptation technologies derived from the trials implemented in from different agro-ecological zones |
| Component 4 | | | |

| | | | |
|---|---|---|---|
| Output 4.1.1: Awareness campaign implemented<br>Output 4.2: Climate change integrated into national education curricula | Output 4.1.1: On-going awareness campaign on climate change includes knowledge based, cutting edge messages on Lesotho-specific climate risks and opportunities for adaptation.<br><br>Output 4.1.2: A protocol for recommendations for integrating climate change into national education curricula available and agreed to by relevant stakeholders | Outcome 4.1: Increased public awareness and engagement and endogenous capacity to manage climate change impacts | Outcome 4.1: Higher public engagement on climate change debate in the country and in the climate change formulation process |

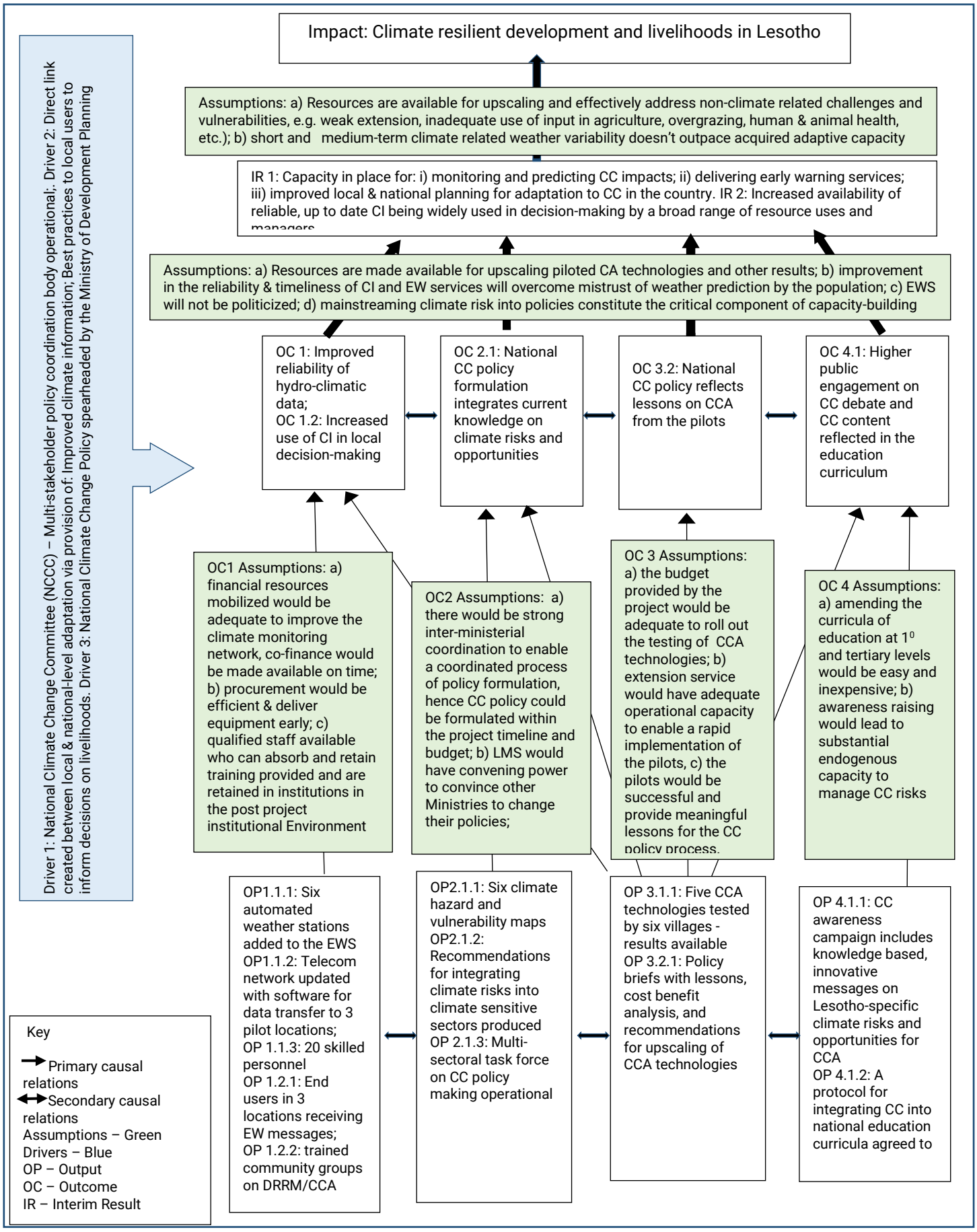
Box 2: Capacities Needed to Ensure Climate Resilient Development (Per Standard Capacity Assessment Methodology)13

| |
|---|
| Capacity to conceptualize and formulate policies, legislations, strategies and programmes for resilient development<br>Capacity to implement policies, strategies and programmes for resilient development<br>Capacity to generate information & knowledge, coordinate and disseminate among all stakeholders on resilient development<br>Capacity to build consensus & partnerships among stakeholders on resilient development<br>Capacity to monitor, evaluate, report and learn<br><br>This capacity is required at Individual, institutional and systematic levels – at Local, District and National levels. |

51. The RToC diagram (Figure 3, below) should be read from the bottom - upwards. The lowest boxes show the outputs, which translate into direct outcomes and onto intermediate outcomes and eventually impacts, if the relevant conditions hold. The relevant assumptions obtaining at every stage are shown in green text while the drivers necessary are shown in blue text.

[13] Source - UNDP 2008. UNDP Capacity Assessment Users Guide: http://www.undp.org/content/dam/aplaws/publication/en/publications/capacity-development/undp-capacity-assessment-methodology/UNDP%20Capacity%20Assessment%20Users%20Guide.pdf

***Figure 3: Reconstructed Theory of Change***



# 2 EVALUATION FINDINGS

## 2.1 OVERALL PROJECT PERFORMANCE

52. The project overall rating is Moderately Satisfactory (Table 7) with mixed successes. While, on the one hand, the project realized significant positive results with regards to upstream interventions including capacity development and policy influencing, downstream interventions (i.e. the trialing of adaptation technologies) failed (details below).

***Table 7: Overall Rating of Project Performance***

| EVALUATION CRITERIA | Rating |
|---|---|
| Strategic relevance | Highly Satisfactory |
| Quality of Project Design | Moderately Unsatisfactory |
| Nature of External Context | Moderately Unfavorable |
| Effectiveness | Moderately Satisfactory |
| Financial Management | Moderately Satisfactory |
| Efficiency | Moderately Unsatisfactory |
| Monitoring and Reporting | Moderately Unsatisfactory |
| Sustainability | Likely |
| Factors Affecting Performance | Satisfactory |
| Overall rating | Moderately Satisfactory |

## 2.2 STRATEGIC RELEVANCE

*53.* Strategic relevance is rated as Highly Satisfactory: the Terminal Evaluation finds that the project met fully the criteria for strategic relevance as is set out in the EOU Criterion Ratings Matrix. The project aligns closely with the UN Environment's intentions expressed in the 2010-2013 Medium Term Strategy and the 2011-2012 Programme of Work; it aligns closely with the Southern African Development Community (SADC), the Common Market for Eastern and Southern Africa (COMESA) climate change policies and National development and climate change policies and programmes. It thus met both Global Environment Fund funding priorities and target group needs and priorities. The details are presented below.

### 2.2.1 ALIGNMENT WITH UN ENVIRONMENT'S STRATEGY, POLICIES AND MANDATE

*54.* The Terminal Evaluation finds that the project aligns closely with the Climate Change objective of UN Environment's 2010 – 2013 Medium Term Strategy (MTS)[14], whose overall objective is to strengthen the ability of countries to integrate climate change responses into national development processes[15]. The project contributes directly to three of the six thematic areas outlined in the 2010-2011 Program of Work (POW) as detailed in Annex 6. The Terminal Evaluation finds that the project aligns closely with the three Global Environment Fund- Least Developing Country Fund Climate Change Adaptation Focal Area Objectives as outlined in Annex 7.

### 2.2.2 RELEVANCE TO REGIONAL, SUB-REGIONAL AND NATIONAL ISSUES AND NEEDS

55. **Regional –** The project is in line with the objectives of several regional climate change programmes, including the **COMESA Climate Change Programme[16],** whose Overall Objective is that "*impacts of climate change in the COMESAEAC-SADC region are addressed through successful adaptation and mitigation actions, which also build economic and social resilience for present and future generations*". The project contributes directly to five of its seven key deliverables, namely:

[14] United Nations Environment Programme Medium-Term Strategy 2010–2013; http://staging.unep.org/PDF/FinalMTSGCSS-X-8.pdf
[15] United Nations Environment Programme Medium-term Strategy 2010–2013: UNEP, 2010.
[16] Programme on Climate Change Adaptation and Mitigation in the Eastern and Southern Africa (COMESA-EAC-SADC) Region. November 2011 - http://www.sadc.int/files/9613/5293/3510/COMESA-EAC-SADC_Climate_Change_Programme_2011.pdf

i) to contribute to the Adoption of key elements of the African Climate Solution and mainstreaming of Climate Change in national planning; (ii) to support member states to access adaptation funds and other climate change financing sources and mechanisms through national investment frameworks for climate adaptation in agriculture, forestry and other land uses; (iii) to enhance adoption of Climate-Smart Conservation Agriculture in COMESA-EAC-SADC region; (iv) to strengthen capacity in national research and training institutions and implementation of research programs; and (v) to implement climate vulnerability assessments and analysis:

56. The project is also in line with the recommendations of the Climate Change Adaptation[17] and Early Warning[18] Options for SADC). Developed via a consultative process financed by the GiZ and implemented by the South Africa National Biodiversity Institute (SANBI) in partnership with the South Africa Department of Environment (DEA), the program produces a series of fact sheets containing recommendations increasing resilience in the SADC region. Recommendations include the need for additional research into the following: Vulnerabilities and the impacts of climate change on rural, urban, and coastal settlements and infrastructure within the SADC region; Best strategies for supporting sound adaptation planning and implementation of NAPAs and NAPs in the SADC region; Vulnerability of the agriculture sector and appropriate adaptation strategies. They also include the need for; strengthening institutional capacity to respond to EWS information at all levels and especially support local level engagement in collating and sharing information; acknowledging the role of healthy ecosystems and ecological infrastructure in reducing the impacts of climate vulnerability and change and integrating this into Disaster Risk Reduction and Management (DRR-M planning; investing in research and development for forecasting, and specifically forecasting tailored to relevant sectors, including an audit of research and development gaps.

### 2.2.3 COMPLEMENTARITY WITH NATIONAL PROCESSES AND EXISTING INTERVENTIONS

57. The project design was based on an in-depth analysis of baseline and co-finance programs, which identified five important processes and programs to which it is aligned, described below:

    A. **The NAPA process:** The project was identified through Lesotho's NAPA process, a participatory initiative that identified urgent and immediate adaptation priority needs for the country, needed to effectively respond and adapt to climate change. More specifically, the project implements the third and fourth NAPA priorities, namely: i) capacity building and policy reforms to integrate climate change into sectoral development plans; and ii) improvement of early warning systems against climate change induced disasters and hazards. The project addressed major gaps in Lesotho's development framework identified during the NAPA formulation process. These include weak capacity for adaptation, environmental management, and global partnership for development. It also addressed challenges related to the poor enabling environment for mainstreaming climate risk into Development Planning, food security systems and sustainable development.

    B. **Lesotho's Vision 2020,** which seeks to strengthen institutions responsible for natural resources and environmental management, environmental advocacy and awareness raising. The Vision tackles the main challenges for the implementation of global agreements for sustainable development.

    C. **National Capacity Self-Assessment** (NCSA) **Process**, which recommended that Lesotho develop the policy and legislative framework for strengthening its ability to implement multilateral agreements on environment, including the UNFCCC. The NCSA also recommended that the country integrate environmental agreements into national and local

[17] GiZ, SANBI, DEA – 2014 : Climate Change Adaptation Options for Southern African Development Community (SADC)- https://www.sanbi.org/sites/default/files/documents/documents/ltas-factsheet-1.pdf:
[18] GiZ, SANBI, DEA – 2014 : Climate Change Adaptation Options for Southern African Development Community (SADC) - https://www.sanbi.org/sites/default/files/documents/documents/ltas-factsheet-2.pdf

government plans, define institutional mandates, and improve institutional capacities for implementation.

D. **The National Disaster Management Plan (NDMP),** which seeks to reduce vulnerability to climate-related disasters such as sustained and severe droughts; increase the country's capability to prevent, alleviate, contain, or minimize the effects of climate-related disasters; enhance readiness or preparedness to deal with climate-related disasters; and ensure the country's full recovery from the impacts of disasters.

E. **Projects addressing climate change related issues:** The project implementation was to be closely coordinated with several other projects that had addressed climate change related issues that either were under implementation or had just concluded. They included:

   a. FAO supervised Technical Cooperation (TCP) project "Strengthening capacity for climate change adaptation in the agricultural sector" that was implemented by the Ministry of Forestry and Land Reclamation between 2009 and 2011. The FAO project objectives were to: i) promote an integrated and community-based approach to addressing climate change risks by strengthening the technical and institutional capacities of key stakeholders at the national and local levels; ii) reduce vulnerability of farming and rural communities to climate change risks by choosing best practices in crop, livestock and forest-based livelihood systems. The project was implemented in three Districts, two of which also benefitted from the NAPA project - Mafeteng and Thaba Tseka. It was expected that knowledge and relevant information would be shared between the two projects.

   b. Lesotho Vulnerability Assessment Committee (LVAC), projects designed to promote sustainable mountain livelihoods and irrigation – financed by USAID (Lesotho irrigation project Phase II).

   c. The Sustainable Agriculture and Natural Resource Management Programme implemented in two of the NAPAP project pilot districts - Quthing and Mafeteng - and financed by the International Fund for Agricultural Development, in collaboration with the Ministry of Agriculture. The objective was to improve household food security and family nutrition, through agricultural diversification and intensification of crops and livestock, and institutional capacity development, at central and decentralized levels.

   d. The UNDP-Supported Africa Adaptation Program (AAP) funded by the Government of Japan; it aimed to improve policies on adaptation. AAP implemented pilot activities to assist communities develop climate change adaptation strategies and action plans in the energy and health sectors. It was expected to provide co-finance to pilot localized delivery of early warning messages in three villages;

   e. The UNDP supported "Enhancing National and Local Capacity in Disaster Risk Reduction in Lesotho, which focused on strengthening the disaster management system in the country and effective management of the impact of disaster risks within the context of sustainable development. It had the following specific objectives. i) Support to disaster risk reduction legal and institutional systems – including review and development of DRR policies and legislations, and strengthening of organizational/institutional structures and systems for DRR. ii) Risk identification and assessment as well as development of user-friendly/people cantered early warning systems; iii) Integrating risk reduction in development initiatives; iv) Preparedness and emergence response to drought, snowfall, localized floods and hailstorms and widespread fires; and iii) Strengthening gender equality in the implementation of disaster risk reduction.

58. The NAPA project was therefore well integrated into the above package of climate change projects, within which joint planning and activity delivery would be pursued to the extent possible, in order to increase synergies, reduce costs, and benefit from comparative advantages of the

various partners and stakeholders. Together, these interventions formed a comprehensive and interconnected package of actions designed to enhance the capacity of Lesotho to adapt to the impacts of climate change both in the short and longer term.

## 2.3 QUALITY OF PROJECT DESIGN

59. The overall rating on quality of project design is Moderately Unsatisfactory, based on an assessment of several aspects of project design, namely: whether the capacities of the executing institution and its counterparts were properly evaluated or considered during project design; whether the partnership arrangements were properly identified and roles and responsibilities negotiated prior to project approval; whether counterpart resources (funding, staff, and facilities), enabling legislation, and adequate project management arrangements were in place at project entry; whether lessons from other relevant projects were properly incorporated in the project design; whether the project assumptions and risks were well-articulated in the PIF and project document; and, whether the stated assumptions and risks helped to determine activities and planned outputs, and whether any unstated externalities, risks and assumptions influenced the implementation and delivery of results. The results are presented in an annex.

### Were the project's objectives and components clear, practicable, and feasible within its time-frame?

60. As discussed in the RToC section, while the objectives were clear, the program of work to deliver on the results was neither fully identified nor adequately funded. The project components required further interpretation to identify practical implementation strategies and actions. Interviews with the PSC, PMU, CTA, and UN Environment Task Manager as well as the Departments spearheading the various components, reiterated that the project design was highly ambitious for the timeframe and budget, and that each component could easily constitute a project. Respondents to the Terminal Evaluation highlighted two reasons for the mismatch between project ambition and low budget and tight timeframes: a) It was reported that the original project had been designed targeting a much larger allocation. However, it had to be scaled back to fit the available budget allocated by the LDCF at the time; b) At the same time, the original project document required a considerable re-write to provide practical implementation guidelines. The two processes led to a project design whose implementation would require more financial resources and time than was available for this project. However, no one from the original project formulation period was available to interview for the MTR or the Terminal Evaluation, which is indicative of the high staff turnover for both the IA and EA (as discussed under the assumptions and risks sections). In addition, co-finance was to fund important aspects of Outcomes 1 and 2, which the project could not guarantee. This weakened the project design. Although a detailed analysis of risks and assumptions was undertaken during design, some important assumptions were not deemed important at the time, but their importance and impact on delivery of results became clear during implementation (as outlined in the RToC section). The sections below explains how the project design affected each component:

    a. Component 1: An early warning system (EWS) relies on infrastructure such as radio towers, cell phone towers, and electrical lines, for example. These aspects of the EWS are well beyond the scope of the project, and therefore the PMU had to manage expectations and work with the existing infrastructure and telecommunications network. The project was however able to deliver six automated weather stations (AWS), including three from Government co-finance.
    b. Component 2: The project target was delivery of an adaptation policy with an approved budget for implementation. While the Ministry responsible for the project can make recommendations or even deliver a draft Policy document, the approval of the policy and budget allocation for its implementation are well beyond the scope of the project, and dependent on the Cabinet. The inception workshop provided further guidance on the component, suggesting that the project should target a dual layer of policy-makers

(principle Secretaries) and a technical team to enable accountability and cooperation. This did not work in reality because the Africa Adaptation Program co-finance expected to finance the training of "relevant ministry staff" did not materialize. The NAPA project, however, made a huge contribution to the parallel process of formulation of a National Climate Change Policy (covering both mitigation and adaptation), by contributing recommendations on how to integrate climate risks into the policies of Ministries responsible for the climate sensitive sectors. In doing so, it therefore utilized alternative parallel co-finance provided by the Ministry of Development Planning for the National CC Policy.

c. Component 3: Under this component, the project expected to pilot test adaptation technologies, learn lessons, and distil them in the form of policy recommendations, which would influence the content of the Adaptation Policy (Component 2) and the content of the awareness raising strategy (Component 4). This was highly ambitious given that the project had to start by identifying project sites, mobilize communities, and implement the trials, while the process of policy formulation and awareness raising were on going. This was made harder by the fact that the three Districts had been selected for being the most vulnerable and the villages and individuals within the villages to participate in the trials targeted the most vulnerable; thus, the trials were conducted within very difficult conditions. Perhaps a review of best practices of adaptation measures/technologies in the country, the region and globally might have been more appropriate given the scope and budget of the project, and the fact that such measures need to be proven successful over a period of time before they qualify as best practices for upscaling.

d. Component 4: While the government of Lesotho directly shapes the primary, secondary, and tertiary school curricula, curriculum for colleges and universities is largely set by the universities independently of government. It was determined after the inception workshop that the development and use of a curriculum on climate change at this highest level of education is impractical and beyond the scope and timeframe of the project. The PSC advised the project to focus their efforts on (grade) school curricula and training for teachers, over which it would have more control.

### Were the capacities of the executing institution and the counterparts properly assessed/considered during the project design?

61. The project document gives adequate details of the partnership arrangements, including a description of roles and responsibilities of each stakeholder to the project and partners in the execution/implementation. However, the Terminal Evaluation finds that no formal baseline 'capacity assessment' was undertaken of the key parties responsible for the implementation, namely: the Ministry of Energy, Meteorology and Water Affairs', Lesotho Meteorological Service, Department of Research (Ministry of Agriculture and Food Security) or the Department of Range Rehabilitation (Ministry of Forests and Land Reclamation).

62. As the lead implementer, the LMS housed the PMU. Made up of the National Project Coordinator, administrative (volunteer) and financial support (one paid staff), the PMU is responsible for day to day operations of the project. The LMS had technical roles too: it had responsibility for Components 2 and 4 (in collaboration with the Ministry of Education), and Component 1 (in collaboration with the Disaster Management Authority). The MAFS and MFLR were responsible for the implementation of activities under Component 3 (piloting adaptation technologies). These institutions were selected because they hold the mandate for the adaptation technologies piloted by the project, and therefore should have the capacity to undertake the tasks. However, many Ministries do not always have the resources to implement their mandates; this is certainly the case for the Ministries involved in this project. The Terminal Evaluation agrees with the findings

of the MTR[19], which pointed the following ways in which lack of capacity affected the project implementation:

a. While the LMS is clearly mandated to coordinate the execution of project activities (with additional responsibilities for executing Components 1, 2 and 4), the original PMU staff members held non-permanent staff positions. While this provided the PMU great flexibility and motivation for performance, it is also somewhat isolated from the rest of the Ministry. Allocating LMS staff to the PMU positions can however be a double-edged sword, if appointed staff do not have project management skills, and/or no provision is made to upgrade their skills. This is demonstrated by the change in project performance since 2015, when project management was taken up by LMS staff. The situation is exacerbated by staff turnover; the project has been managed by three different Directors of LMS (who is also the National Project Director), three Task Managers (TM) (UNEP) and two Chief Technical Advisors.

b. The mandates of the MAFS and the MFLR overlap in some areas. Efficiency would have benefited from analysis of mandates during project design, identifying clearly the benefit of having both Ministries support trialing of adaptation technologies. It is possible that it could have been more cost effective for one Ministry involvement. The Inception Workshop Report stated that a conscious decision was made to exclude civil society in the trialing of adaptation technologies because of the tendencies to ignore government procedures in their dealing with communities. However, engaging civil society groups based in the districts may have been more cost effective.

c. Although the Ministry of Education is the appropriate body to execute Component 4 in theory, it does not have the power to influence university curriculum as originally envisioned in the Prodoc.

### Were counterpart resources (funding, staff, and facilities), enabling legislation, and adequate project management arrangements in place at project entry?

63. As explained in the Prodoc Section 2.3 (barriers), this project was set up to provide the additional resources the Government of Lesotho required to improve climate monitoring and delivery of climate information and early warning services, as well as to mainstream climate risk into the country's policies. The actual objective of the project was therefore to address many of the capacity and resource gaps of the partnering ministries and departments, such as improving communications between LMS and remote hydro-met stations, providing resources to improve the early warning system, and improving formal and regular linkages between sectors and actions in DRR and climate change adaptation. The assumption is that there would be baseline resources upon which the project would build on, provided on time to enable a smooth implementation. Interviews with the PSC, the communities implementing adaptation technologies and the Departments responsible for the various components showed that, while the government was fully committed to providing the co-finance resources (staff members and their working arrangements, etc.) it largely expected the project to provide funds to enable the day-to-day operations of the staff dedicated to the project activities. The Terminal Evaluation however finds that, although not all the baseline resources were in place at the time of project launch, the rationale of the project was to bolster them through implementation.

64. Despite the foregoing, the Terminal Evaluation finds that there was a specific challenge with project funding, exacerbated by inadequate details for implementation during project design. As reported in a previous section, the project strategy lacked a realistic scope of work for the budget and timeframe allotted. It therefore required considerable interpretation and detailed analysis during the inception phase of project implementation to provide practical guidelines for actual implementation. Indeed, there was a mismatch in the expected duration versus the eventual

[19] Mid-Term Review of the Full-Sized GEF/UNEP Project in Lesotho "Improvement of Early Warning System to Reduce Impacts of Climate Change and Capacity Building to Integrate Climate Change into Development Plans; UNEP 2014.

actual duration of the project. The budget submitted (and approved by the Global Environment Fund) was for three years while the workplan approved with it was for four years. Consequently, budgets available for practical interventions as well as the requisite technical assistance decreased commensurately. A second challenge, particularly in the light of the limited budget was the ambitious design of the project. The project design was highly ambitious for the 48 months and the limited budget provided. It would still have been highly ambitious even if co-finance had been realized. All the PSC respondents, the MTR and this evaluator believe that each of the project components could have constituted a stand-alone project. The diversity of themes resulted in efforts – already constrained by budgetary restrictions – being spread thinly and ultimately sub-optimally, especially under Component 3.

### Did project design incorporate lessons from other relevant projects?

**65.** The Terminal Evaluation finds that the project designers invested considerable effort in identifying lessons from other projects implemented in Lesotho and in the region, which they incorporated into the project design. Indeed, the NAPA project was preceded by a 2006 Global Environment Fund/UNDP National Capacity Self-Assessment exercise that identified capacity gaps hindering the implementation of multilateral Environmental agreements[20]. It also builds on the results of the vulnerability assessments undertaken in the context of the NAPA and National Communications. Since the current project seeks to strengthen human, technical and institutional capacity to integrate climate change into national development planning, it addresses many of the recommendations of these three projects/processes with the hope that improvements in the capacities of participating institutions will lead to coordinated and more effective adaptation responses.

66. The Prodoc further reported that the project build on lessons generated via the implementation of the UNDP/JICA supported Africa Adaptation Programme (AAP), implemented between January 2010 and December 2012. The AAP was a precursor to the NAPA project and supported Component 2 (policy development), and Component 4 (public awareness raising). Indeed, all the adaptation technologies trialed by Component 3 had been tested by previous projects. As reported in the MTR, the keyhole gardens were adapted from a project of the Consortium for Southern Africa Food Security Emergency (C-Safe), which closed in 2005, and was supported by the Catholic Relief Services/CARE/World Vision. Improving chicken breeds complemented by locally prepared chicken feeds had been trialed in the 1990s by the IFAD-funded Local Initiatives Support Project (LISP). The rangeland management and restoration plans (RMRPs) have been widely utilized in Lesotho: the United Nations Development Programme-Global Environment Facility Project on Capacity Building for Sustainable Land Management, closed in 2015, used the technology to improve rangelands productivity while restoring range condition in the Highlands. The NAPA project updated these technologies by applying a climate change perspective to the trials. However, with the exception of Component 3, the project document does clearly identify the exact lessons that informed specific aspects of the design; nor any indication of formal partnerships with any existing projects, or the institutions that had led the implementation of the concluded projects from which lessons were drawn.

### Did the PIF and the Prodoc articulate risks and assumptions clearly?

67. The Terminal Evaluation finds that the project design was based on an adequate analysis of risks, which was monitored and adjusted regularly during the project implementation period. The Prodoc reported that the key assumption underlying the project was that "the provision of reliable, legitimate, and timely climate information is the basis for sound agricultural planning and the cornerstone for adaptive capacity in Lesotho." Other assumptions noted in the CEO endorsement and project document are that: a multiple sector approach is necessary for measurable

[20] This capacity assessment was not directed at specific institutions for a specific project.

adaptation benefits by targeted interventions; local pilots can leverage spontaneous (unaided) replication among communities as well as inform policy-making processes (provided learning mechanisms are in place). The original results framework contained in the project document does not contain corresponding assumptions under outcomes (or outputs), which was later completed as part of the baseline report. Annex 8 shows the comments from MTR and Terminal Evaluation on the risks identified at design and updated during the project implementation. It also shows additional assumptions that were relevant to project implementation, summarized from the RToC section.

68. . The Terminal Evaluation finds that while the assumptions in the Prodoc and the baseline report cover most of the relevant issues required for successful implementation of each component, several of them were preconditions. Without these, the project would be a non-starter. It would therefore have budgeted activities to address them. These include those focused on the need for strong inter-agency cooperation, community interest in implementing project activities, government commitment to mainstreaming climate change in the development planning processes, political will for the formulation of the climate change policy, and strong community and government leadership commitment. In addition, two important assumptions should have been highlighted for Component 3, with risk management measures: a) that there would not be extreme weather events such as drought or floods, or other exogenous (economic, political, socio-political) upheavals during the trialing of the adaptation technologies; b) that the project communication would effectively overcome the cultural resistance to sorghum over maize. Maize is a traditional staple food that is used for a multitude of dishes and purposes, whereas the more drought resistant sorghum is only useful for making porridge and beer. There is a tendency to reject sorghum in the Southern Africa belt, unless projects guarantee a ready market for it, which is difficult. A major risk for Component 2 was missing – that there would be access to reliable and accurate daily climate data by the team commissioned to complete the vulnerability analysis. The vulnerability mapping report identified two challenges with this: a) poor quality of data as a critical challenge to the exercise, likely to affect the accuracy of the maps; b) where the data was available, it was stored by MEMWA. However, departmental policies for data sharing did not facilitate data sharing, forcing LMS to establish an MOU with the University of Cape Town on data sharing. This delayed the activities under Component 2.

## *2.4* NATURE OF EXTERNAL CONTEXT

*69.* This project was implemented in a prevailing context of drought and poor infrastructure in Lesotho. (Prodoc and field visits). Therefore, the project design was expected to build resilience to mitigate factors such as drought/ poor climatic conditions and poor infrastructure- which significantly affected project operations and achievements.

70. Lesotho experienced drought in 2015-2016, negatively affecting the trials as grass seedlings shriveled and trees died. However, beyond the drought, other factors contributed to the failed trial results. These factors included the choice of trial locations - the most vulnerable villages in the most vulnerable districts – these populations may not have had the capacity to absorb the trials. As well, these trials were not compared to a situation without trials, it is difficult to attribute exact reasons for failed trials. Another factor contributing to failed trials is that civil society, more attuned to community realities than the Government Department of Research, and were not involved to support with back up seed supply or other trial-related areas.

71. Poor infrastructure intermittently or partially affected project operations. Although Lesotho has a good road network with tar-lined roads to the three pilot Districts, the public transport system is under-developed. This makes visits by extension providers expensive. The Government withdrawal of the co-finance supported vehicle in 2015-2016 following the change of national government after a general election affected the Ministry of Agriculture's ability to finance supervisory travel. This coincided with UN Environment's temporary hold on disbursements, pending queries on several quarterly financial reports.

72. In sum, since the criterion Nature of External Context is moderately favorable because the external contextual factors of poor infrastructure and drought are prevailing rather than unexpected external conditions which did not derail the project entirely.

## 2.5 EFFECTIVENESS

73. Despite the challenges with Component 3, the overall effectiveness is rated Moderately Satisfactory. This rating is justified by the delivery of outputs is largely achieved, key Outcomes 1 and 2 are largely achieved and there is likelihood of impacts being realized. A scale of 1 to 10 was used to rate delivery of outputs per component, where one represents very low levels of achievement and ten is fully delivered, summarized in Table 8 and detailed in Table 9. 92 percent of the outputs registered a score of seven and above, with 67 percent scoring 10 out of 10 and only one output (eight percent) scoring below seven (Tables 8 and 9). The lessons from Component 3 (adaptation technology trials) were unfortunately delayed and are not yet available to inform policy processes. The failure of many of the piloted adaptation technologies should generate very important lessons for the design of adaptation measures, which the relevant stakeholders should analyze, capture, and disseminate. The detailed achievement for outputs, outcomes and the likelihood of impacts are presented below.

### 2.5.1 DELIVERY OF OUTPUTS

74. The delivery of outputs is rated as Moderately Satisfactory. As explained in Section 2.10 (Reconstructed Theory of Change), many of the outputs at design stage represented high-level results for which the project had neither the budget nor the mandate to produce. These include, for example, Outputs 1 (Upgraded and operational climate monitoring network) and 4.2 (Climate change integrated into national education curricula). Table 9 shows the reconstructed outputs and the detailed assessment of delivery at Terminal Evaluation.

***Table 8: Summary delivery of Outputs per Component***

| Rate of Output Completion: | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rate of Output Completion: Scale 0 - 10 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Total Outputs |
| Component 1 | | | | | | | | 1 | 1 | | 3 | 5 |
| Component 2 | | | | | | | | | | | 3 | 3 |
| Component 3 | | | | 1 | | | | | | | 1 | 2 |
| Component 4 | | | | | | | | | | 1 | 1 | 2 |
| Total Outputs per Rating | | | | 1 | | | | 1 | | 1 | 8 | 12 |
| Percentage of Total | | | | 8% | | | | 8% | | 8% | 67% | 100 |
| | | | | 8% | | | | 92% | | | | |

***Table 9: Detailed Assessment of the Delivery of Outputs***

| Outputs at Terminal Evaluation | State of delivery at Terminal Evaluation | Score (0-10) |
|---|---|---|
| Component 1: Improved reliability of hydro-climatic data | | |
| Output 1.1.1: Six automated weather stations added to the weather monitoring system; | Completed in 2015: Six sets of automatic weather stations were procured and installed (three from GoL co-finance). These are now fully functional and are transmitting data to LMS headquarters. | 10 |
| Output 1.1.2: Telecommunication network updated/equipped with software for data transfer to three pilot locations; | The procurement of equipment for data transfer from weather observation stations to the data management center at LMS proceeded in conjunction with the procurement of the automatic weather stations (see above). Installation of this equipment has occurred in parallel to the installation of the weather stations. The data from the weather stations is being transmitted to LMS. | 10 |

| | | |
|---|---|---|
| | | |
| Output 1.1.3: 20 skilled personnel on operation and maintenance of climate monitoring stations and crop and agro-hydrological models), vulnerability mapping and downscaling methods (number) | 16 station managers for AWSs have received training on the use and management of AWSs, in particular on the transmission of data from the AWSs to LMS headquarters. As a result, each of LMS's 13 major stations – including existing AWSs and those delivered by this project – has at least one fully trained station manager.<br><br>Climate observers<br>120 climate observers trained on climate and meteorology as well as how to operate equipment, observe, record, secure, and transmit data. The newly trained station managers as well as other LMS staff provided training. Trained climate observers include 86 observers for rainfall stations, 22 observers for agro-meteorological stations, and 12 weekend observers for main climate stations.<br>Five climatologists trained through the Climate System Analysis Group (CSAG) of the University of Cape Town on climate modelling. The course is supported by UNITAR C3D+ and covers the following topics: i) climate dynamics; ii) risk and vulnerability framing; iii) climate modelling; iv) climate change scenarios; v) climate adaptation frameworks; vi) downscaling methods; and vii) adaptation planning, policy and decision making. CSAG training was chosen over training given by an international consultant due to its international credentials and link to the UNITAR community of practice as described above. The five climatologists have trained 14 other trainees including: five LMS staff and one technical officer from each of the following institutions: Department of Crops, Department of Livestock, Department of Research (all Ministry of Agriculture), Department of Planning, Department of Meteorology (both Ministry of Energy and Meteorology), Water Commission, Department of Statistics, Department of Water Affairs, Department of Local Government and the Rural Self-Help Development Association. The training covered climate science, climate data, information, and modelling overview, the use of Climate Information Portal tools for by various sectors, vulnerability assessment and climate change adaptation planning.<br>26 participants trained on six modules of crop modelling through three training workshops. Training on crop modelling helped participants gain an understanding of the effects of climate change on crop production and productivity in the context of Lesotho as well as modelling methodologies to inform decision-making and planning. The training covered data collection and analysis, crop modelling and analysis of model results. The training also introduced participants to dry spell detection and determination of onset of rains from various datasets. Participants included representatives from the Agricultural Research Department, LMS's Agro-Meteorology division, LMS's Climate Change division, the Agricultural Production Department, the Lesotho College of Agriculture, and the National University of Lesotho. | 10 |
| Output 1.2.1: End users in three pilot locations receiving early warning messages; | Co-finance from DRR project was supposed to be used to design and test pilot the provision of location-specific early warning messages. The co-finance did not materialize, so the piloting did not happen. However, LMS in general continues to provide climate information to the whole country. Over 95 percent of respondents in six pilot villages reported receiving weather alerts regularly. | 7 |

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| Output 1.2.2: Skills amongst community groups on disaster management and adaptive responses | The project organized seven awareness raising workshops and roadshows, reaching about 236 participants21 (one per the six pilot villages and one at national level). Training covered use of climate risk/hazards and vulnerability maps in planning by local decision-makers as well as for line ministries at the national level. However, trainees did not receive training material in the six villages for further references. Those interviewed reported to have forgotten what they had learnt22. | 8 |
| Component 2: Stronger capacity for resilient development planning | | |
| Output 2.1.1: Six sets of climate hazard and vulnerability maps produced | The project produced six GIS-based hazard maps focusing on project zones in the three pilot districts. These maps include sectoral risk and vulnerability analyses focusing on key productive sectors such as agriculture, water, livestock and forests, as well as relevant socio-economic data. The maps were revised to reflect changes in administrative boundaries and have since been validated by stakeholders at the national and local levels.<br>In addition, climate modelling and downscaling exercise was completed through the study on Vulnerability Assessment and Hazard Mapping. It included one downscaled model and five vulnerability maps. The final report includes chapters on the current climate of Lesotho, climate risk and hazard mapping, regional climate scenarios and climate impact assessment for agriculture (both livestock and crops), water resources, and land use. National- and local-level stakeholders reviewed and validated the report. The project distributed validated reports of the findings to community councils. The report was uploaded to the project website (http://www.earlywarningproject.org.ls) (which is now inactive?), and shared with various stakeholders, including the NCCC. This enhanced understanding of climate change issues amongst stakeholders, which was a stepping-stone for formulation of Lesotho's NAP. Maps and associated knowledge products have also been disseminated to decision-makers at the national- and district-level through workshops. | 10 |
| Output 2.1.2: Recommendations for integrating climate risks into climate sensitive sectors produced and shared (how many sectors)? | The project reviewed policies of ten ministries provided recommendations for integrating climate risks provided, in terms of ten policy briefs. | 10 |
| Output 2.1.3: Multi-sectoral task force on climate change and CCA policy making operational and has a financial sustainability plan | The National Climate Change Committee (NCCC) is formally established. It enjoys recognition from relevant stakeholders as a multi-sectoral task force on climate change and policy-making. The NCCC was very active in the National Climate Change Formulation process (still ongoing). It has mobilized funding from other development partners, signifying the recognition of the important role it is playing in the policy arena. NCCC has worked on identifying opportunities for and facilitating mainstreaming of climate change into various vulnerable sectors. It has refined its terms of reference to ensure that it remains functional after the project closure, for which it has mobilized some funds. It served as a consultation forum for other initiatives working on climate change in Lesotho. Example - as a consultation forum to inform policy priorities and needs for | 10 |

[21] The 2016 PIR is the source of this information, and it does not report on attendance by gender. However, observations during the Terminal Evaluation meetings in the village showed that women, men and the youth attend the meetings in nearly equal numbers, and all gender groups participate actively. It is assumed that this was the case with the training on DRR.

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| | climate change adaptation Meetings would be held at a minimum of every quarter, with ad hoc meetings when necessary | |
| Component 3: National policy making is informed by best practice and local demonstration | | |
| Output 3.1.1: Five adaptation technologies tested by six villages in three districts and results available (crop diversification, improved livestock breeds, soil erosion control, water harvesting techniques, increasing rangeland productivity). | The following adaptation technologies have been piloted:<br>Rangeland management – the project developed Rangeland Management and Rehabilitation Plans (RMRPs) during the second year of project, for the six pilot sites. The rangeland management plans included recommended carrying capacities, rotational grazing, and the formation of grazing associations. Each village developed a grazing plan to implement the RMRPs. Implementation of the RMRPs included a) Anti-erosive measures – highly eroded communal lands across steep slopes were identified and community groups trained on how to control soil erosion occasioned by irregular weather events by the use of stone lines, About a kilometer of stone lines was established in each village via food for work, to serve as demonstration for further uptake of the technology. All six villages were provided with tree and fruit seedlings to plant to increase trees in their landscapes and increase availability of fruits;<br>Each villages was assisted to identify a patch of degraded pasture (on communal rangelands) to be re-seeded with valuable fodder species. In addition, the livestock herders within all three pilot sites (six villages) have received training of the ongoing management of the rangelands according to the RMRPs to promote climate-resilience.<br>Spring tanks (water reservoirs) have been, or are under construction in four pilot villages in the Thaba Tseka and Quthing districts to provide an emergency source of irrigation water for vegetables during drought periods. Two small waterholes in Mafeteng were desilted.<br>Farmers in Quthing and Mafeteng districts received seeds of climate-resilient sorghum varieties to trial during two seasons. The plan was for these farmers to share the seeds with others after seed multiplication, but unfortunately, the trailing coincided with a severe drought and farmers lost most of the seeds (75%).<br>10 breeding rams were provided to 36 households (to be shared) to improve the quality of wool production (in Thaba Tseka); while several households in Mafteng and Quting were provided with improved breeds of chicken, accompanied by training on production of home-made improved chicken feeds. In both the chicken and ram initiatives elaborate plans were put in place to promote sharing of the proceeds of the improved breeds (ram and chicken).<br>Communities in the three pilot districts (six villages) received training and technical assistance to construct keyhole gardens which they use to grow vegetables.<br>The communities received and planted 1,000 apple and pear trees, 2,400 peach trees and 100 bamboo seedlings across all pilot villages. This included 754 fruit trees planted by 30 households in Maputsoe and 353 trees planted by 29 households at Ha-Tokho (both in Thaba-Tseka district). Drought-resilient sorghum was planted in four fields in Ha-Lekhari and three fields in Ha-Ntanyele (both in Mafeteng district), in four fields in Ha-Rakhomo (Quthing district). | 10 |

| | | |
|---|---|---|
| Output 3.2.1: Lessons, cost benefit analysis and recommendations for upscaling of adaptation technologies available as policy briefs (best and worst practices) – on energy options, range rehabilitation, improved sheep and poultry breeds, crop diversification, soil erosion and water harvesting; | The analysis of the results of the piloted initiatives has started but there are no completed reports or policy briefs arising from the piloting yet. The analysis and documentation of lessons is important because, unfortunately, despite showing early signs of success, most pilots had failed at the time of the Terminal Evaluation. Tree planting, establishment of orchards, poultry and range reseeding was reported to have failed. Keyhole gardens, stone lines and the introduction of high quality wool rams showed success while water harvesting (water tanks, waterholes) showed mixed results. There are critical lessons to be drawn from this piloting, which is yet to happen. | 3 |
| Outcome 4: Increased public engagement on climate change debate in the country and climate change content reflected in the education curriculum | | |
| Output 4.1.1: On-going awareness campaign on climate change includes knowledge based, innovative messages on Lesotho-specific climate risks and opportunities for adaptation. | The project has contributed material that has enriched the discussions on climate change in Lesotho tremendously, through all the four components. It has also conducted training workshops and roadshows to raise awareness on climate change in the pilot areas and the country. In addition to all the training events and workshops reported under the other components, a number of journalists have been trained on reporting on climate change. These journalists then developed a number of newspaper articles, radio segments and TV programmes on climate change. | 10 |
| Output 4.1.2: A protocol for Recommendations for integrating climate change into national education curricula available and agreed to by relevant stakeholders | A climate change toolkit for teachers was developed and launched, and was meant to be pilot tested in 56 primary and secondary schools country-wide since the end of 2015 and into 2016. However, due to delayed disbursement of funds in 2016, the testing was still on-going at the time of the TE. While the toolkit is not subject-specific, teachers can adapt it to address specific learning outcomes of the already existing syllabus. It is appropriate for use from primary school up to high school level. The toolkit is distributed together with "additional notes", also developed by the project, for further reference. Both the toolkit and its additional notes were developed by LMS in collaboration with the Ministry with Education and Training (National Curriculum Development Centre, Examinations Council of Lesotho) and teachers representing primary education and five subject at secondary to high school levels. A MoU was signed between the project and the Ministry of Education for pilot testing the courses on climate change. | 9 |

### 2.5.2 ACHIEVEMENT OF DIRECT OUTCOMES AS DEFINED IN THE RECONSTRUCTED TOC.

75. Achievement of the outcomes is rated as Moderately Satisfactory because Component 1 was fully achieved, 2 and 4 were partially achieved and Component 3 was not achieved. Component 1 delivered six automated weather stations and exceeded end of project targets on training. These results feed into intermediate result 1: capacity in place for monitoring and predicting climate change impacts and delivering early warning messages. The results also increased the capacity of the LMS to gather and disseminate climate information, contributing to Intermediate Result 2: Increased availability of reliable, up to date climate information being widely used in decision-making by a broad range of resource uses and managers.

76. While Component 2 did not deliver the national policy on adaptation, it delivered five draft sectoral policies integrating climate risks into climate sensitive sectors (details below), which contributed greatly to the draft national climate change policy (being developed by the Ministry of Development Planning). Although these policy processes were not informed by the trials from Component 3, they relied on review of the old sector policies using publicly available knowledge

on mainstreaming climate risks into policies. These results contributed to intermediate results 1 and 2: IR 1: Capacity in place for improved local and national planning for adaptation to CC in the country. IR 2: Increased availability of reliable, up to date CI being widely used in decision-making by a broad range of resource uses and managers.

77. Component 3 did not deliver (details below). Under key direct Outcome 4 - awareness and public engagement – the project increased the level of media discussions on climate change issues by producing journalists skilled in reporting on climate change issues. It also delivered a protocol for mainstreaming climate change into primary and secondary school curricula. Students and teachers in the 56 schools testing the protocol have increased awareness on climate change matters. This has contributed to Intermediate Result 2.

78. ? Veronica-Anything to add about status of assumptions and drivers in place to lead to the intermediate results?

## Component 1: Improved reliability of hydro-climatic data – Fully Achieved

79. The baseline condition for this component was that the Lesotho meteorological observation network should have a comprehensive makeover that should include rehabilitation of existing instruments and installation of new ones. At the beginning of the project, the network consisted of three synoptic, 31 climate, six Agromet and 53 rainfall stations. The network faced many challenges including obsolete and unserviceable equipment, human errors at monitoring stations, vandalism, poor communication facilities, and poor data archiving. It lacked essential climate equipment to facilitate accurate climate monitoring and prediction as outlined in the "Revised UNFCCC Reporting Guidelines on Global Climate Change Observing Systems[14].

80. **Has the project helped LMS and the government of Lesotho to upgrade its climate and weather monitoring services?** Clearly, the project contributed to the upgrade of the climate-monitoring network in Lesotho. The six sets of fully functional[23] Automated Weather Stations (AWSs) and data transfer equipment installed, together with the "training-of-trainers" on AWS operation, climate and crop modelling, and downscaling tools has increased LMS's capacity to analyse climate information and provide early warning services to communities. Staff of LMS and other technicians have had their capacity built to collect, analyse, manage and interpret climate risk information for a range of goals, including development of early warnings on climate-induced hazards as well as inform policy-making and planning. Moreover, these trained staff will train others from LMS and other line ministries and government departments. This has improved the reach and sustainability of the training activities, although the Terminal Evaluation cannot establish a percentage of improvement over the baseline, since a baseline value is not available.

81. **Was this strategy effective in improving climate monitoring, prediction and early warning systems in the country?** The project adopted a three-pronged approach to the outcomes: adding hardware and software, improving skills and pilot testing the delivery of the improved climate information (including early warning) in three villages. The project provided the budget for three AWS and the associated software while the government was to provide co-finance for an additional three AWS and the Disaster Risk Reduction project was to provide the funding for the design and pilot testing of the climate information delivery. This last co-finance was not made available; hence, the system was not piloted. However, the LMS continues to provide climate information through radio, television and newspapers, as well as briefs through the Chiefs. The lack of the pilot testing has therefore not reduced the effectiveness of the result significantly. The challenge to the effectiveness of this result is the magnitude of the capacity gaps compared to

[23] A functional automated weather station contains: 1 x minimum thermometer, 1 x maximum thermometer, 1 x Grass thermometer, 1 x rain gauge, 1 x 0 cm soil thermometer, 1 x 5 cm soil thermometer, 1 x 10 cm soil thermometer, 1 x 20 cm soil thermometer, 1 x 30 cm earth thermometer, 1 x 50 cm soil thermometer, 1 x 1 m earth thermometer, 1 x barometer, 1 x hail pad, 1 x 2 m anemometer & anemograph, 1 x 2 m wind vane, 1 x thermo-hygrograph and thermo-hygrograph pens, 1 x hygrometer and hygrometric wicks, 1 x Rain gauge and measuring glasses, 1 x Pluviograph and pluviograph pens, 1 x Evaporimeter and evaporigraph, 1 x Sunshine recorder and radiometers, 1 x thermo-hygrograph, 1 x automated wind speed and direction dial, 1 x self-recording rain gauge, 1 x sunshine recorder and radiometers, 1 x autographic recording station, 1 x Stevenson screen; and, 1 x Fixed telephone line, radio or mobile phone.

what the Medium Size Project (MSP) could deliver with the limited budget. Lesotho has 93 weather stations, 13 of them AWS. Six additional AWS are too few to make significant change in reliability of the information. Furthermore, the country needs to increase the coverage of the AWS countrywide, based on a comprehensive gap analysis.

82. The 'skills gaps' at the pre-project baseline have not shifted significantly. At the technical level, the shortage of qualified and experienced individuals in the private workforce with the requisite capacity and expertise on climate change and adaptation hampered the implementation of project and the achievement at the results level. Due to inadequate skilled and experienced nationals, the project relied on international consultants. Combined with slow procurement processes, this reduced the opportunity of "learning on the job" for nationals and slowed down delivery of results. The project also relied heavily on short courses, which essentially upgrades skills of those already in the profession. There is an urgent need to increase the number of professionals in the field of climate science in the country, through university training. At the community level, although the project conducted training on climate, disaster management and adaptation, responses by respondents and observations by the Terminal Evaluation indicate there is still further work to be done to transfer skills (beyond training). A different training approach is required, one that would be more effective in skills transfers than awareness raising workshops and road shows.

83. Is there any early evidence of the use of data collected through these networks in decision-making including national policy-making? Although there has been no assessment of the uptake of the climate information and early warning services from the project, the Terminal Evaluation finds that two events accelerated the use of the improved information in decision-making, both at the national and local levels. a) The country experienced an agricultural drought in 2014-2015 growing season followed by the La Nina linked drought of 2015-2016. During this period, LMS intensified the dissemination of climate information and early warning messages. 95 percent of the respondents to the Terminal Evaluation questions in the six villages reported having received climate information and early warning messages during that period, and continue to do so (roughly equal number of women as men and the youth). About 40 percent reported having used the information in decision-making. About 60 percent reported that the information still lacked accuracy relative to their locality-specifics; hence, they did not trust it. b) The Ministry of Development Planning started the National Climate Change formulation process early on during the implementation of the NAPA project. This created demand for climate information, reported in more detail under Component 2.

### Outcome 2: National climate change policy formulation integrates current knowledge on climate risks and opportunities – Partially Achieved

84. **Are there sectoral policy documents, which include adaptation options and opportunities in Lesotho?** The Terminal Evaluation finds that at least five Ministries have policy documents recommending changes to mainstream climate change risks and opportunities, to which the project contributed. These are Forestry, Range and Soil Conservation, Water, Agriculture and Food Security, Local Government and Chieftainship Affairs, Defense and National Security and Ministry of Development Planning. The Terminal Evaluation finds two drivers that enabled the project to exceed its target on this indicator: i) The Ministry of Development Planning initiated a process to develop a National Climate Change Policy. This generated demand for the services delivered by the project, which had started reviewing other sector policies to make recommendations for mainstreaming climate risk; ii) The National Climate Change Committee (NCCC) established by the project provided an excellent platform for coordinating sectoral inputs into the policy making process. The NCCC has held numerous consultative meetings, at which stakeholders identify opportunities for and facilitating mainstreaming of climate change into various vulnerable sectors. The NCCC has refined its terms of reference to ensure that it remains functional after the project ends.

### Outcome 3: National policy making is informed by best practice and local demonstration -Not achieved

85. Despite showing early signs of success, many of the adaptation technologies performed very poorly, and had failed by the time of the TE. Although the various departments in charge of facilitating communities to pilot the adaptation technologies have produced regular annual reports, no final reports are yet available, hence there are no conclusive lessons from the trials. The cost benefit analysis study that should have provided conclusions on the costs of the trials and therefore adaptation technologies was not undertaken. The lessons from the trials were not available to inform the policy formulation. They are still not available at the time of the TE.

### Component 4: Higher public engagement on climate change debate in the country and climate change content reflected in the education curriculum – Partially Achieved

### Has the degree of awareness and interest in climate change issues increased among the public, students, and the media?

86. There was no baseline assessment of the levels of awareness of climate change issues at the beginning of the project, or during the implementation. The Prodoc baseline is a statement that "*at the moment, there is limited awareness and understanding of climate change issues beyond government circles*". However, findings of the curriculum audit conducted by the Ministry of Education with the technical assistance of the Ministry of Agriculture support the above baseline statement. The report found that the education sector needs to make climate change issues more explicit in upper classes of primary schools starting with the grade five syllabus. At the secondary school level, the syllabuses of Agriculture, Development Studies, Geography, and Science have a strong environmental dimension. However, they are not explicit about climate change. The audit identified many areas for integration and dissemination of information on climate and climate change. At secondary level, it identified five subjects as relevant to climate change: Geography, Agriculture, Biology, Development Studies, and Physical Science. At tertiary level, integration of climate change in the National University is adequate, whereas only a few courses addressed the subject in two colleges (Lesotho College of Education and Lerotholi Polytechnic). The education audit recommended that the developers of the new integrated primary school curriculum make a conscious effort to introduce climate change and its impacts into the curriculum. Although no assessment has been done to establish the changes in the level of awareness and engagement on climate change amongst the education sector, the Terminal Evaluation finds that it is likely to have increased significantly. The education sector was involved in the audit described above and formulating the toolkit for integrating climate change content into the curriculum. The Toolkit is being tested in 56 schools. From the interviews carried out during the Terminal Evaluation it would appear that the students and teachers participating in the pilot testing are increasing their awareness of climate change issues tremendously.

87. Although there was no baseline for levels of awareness and public engagement in CC discussions at the beginning of the project, the Terminal Evaluation also finds it reasonable to conclude that the project increased awareness and engagement tremendously amongst the public and the media. In addition to the high levels of delivery of outputs under the Component 1(as reported in section 2.5.1 - output delivery), the rise in awareness and public engagement was driven by two events: the 2015-2016 drought received global attention and LMS responded by increasing discussions on climate change and disseminating climate information and early warning messages through all the media outlets (radio, television, print media, cell phones, etc.). About ninety five of the respondents to Terminal Evaluation questions in the pilot villages reported having been informed about the 2015-2016 drought, its causes, and implications for their livelihoods, through several information dissemination channels. It is fair to expect similar response levels countrywide. This was boosted by the project training of journalists, providing them with skills and information for more accurate and effective communication/dissemination of climate information. At the same time, the National Climate Change Policy formulation process,

spearheaded by the powerful Ministry of Development Planning, aided by the National Climate Change Coordination Committee increased the public debate on climate change tremendously.

### 2.5.3 LIKELIHOOD OF IMPACT

88. The likelihood of impact is rated as Likely. The project's direct outcomes are expected lead to two intermediate states Capacity in place for: i) monitoring and predicting CC impacts; ii) delivering early warning services; iii) improved local & national planning for adaptation to CC in the country. IR Two: Increased availability of reliable, up to date climate information being widely used in decision-making by a broad range of resource users and managers. In the longer-term, they are expected to contribute to impact: securing resilient Development Planning and livelihoods in the country, irrespective of the uncertainties related to climate change.

89. The Terminal Evaluation finds that, by and large, there are drivers and assumptions in place to build on the outcome achievements by the project to translate to the intermediate results, although there are major risks to the intermediate results translating into long-term impacts. Table 10 provides a detailed analysis and justification for the rating.

***Table 10: Analysing Likelihood of Achieving Intermediate results and Impacts***

| Intermediate results | Contributing direct outcomes | Drivers in place for transition | Assumptions and risks which might hamper transition |
|---|---|---|---|
| Capacity in place for: i) monitoring and predicting CC impacts; ii) delivering early warning services. | Improved reliability of hydro-climatic data;<br><br>Higher public engagement on climate change debate in the country and climate change content reflected in the education curriculum | The project scored a Highly Satisfactory on the delivery on Component 1 and a satisfactory on Component 4 (higher public engagement). On Component 1, it delivered all the automated weather stations financed by both the project and co-finance, and exceeded its targets on providing the relevant skills through training.<br>It delivered satisfactorily on the direct outcome of increasing the public engagement on the debate in climate change and increasing the CC content in the education curriculum.<br><br>In addition, with the technical assistance of UN Environment, the government is designing a Phase II of the project to upscale the provision of AWS and increase skills on climate science. There is a high likelihood of the project being financed through the Global Environment Fund.<br><br>The MoU in place will ensure that the Ministry of Education concludes the pilot testing of the protocol to integrate CC into education and roll out the program. It is likely that the Phase II project currently being designed will support this process. | The scale of the project's achievement relative to the baseline situation to be addressed is still too small (six out of 93 weather stations). It is therefore important that Phase II increases the number of AWS significantly.<br><br>The approach to capacity building needs to shift from holding short courses to add skills of technicians already in the employment of LMS and its partners, to increasing the number of climate scientists and technicians in the country, at all levels (Degrees to Diplomas to certificates). |
| Capacity in place for iii) improved local & national planning for | All four direct outcomes | In addition to the analysis above, the project delivery on the national climate policy being informed by climate science was achieved. The strongest drive for the transition of all the four outcomes | Similarly to the above, the scale of delivery by the project, though excellent for a Medium Size Project, is still too small relative to the baseline |

| | | | |
|---|---|---|---|
| adaptation to CC in the country | | into actual capacity for the country to improve capacity for local and national planning for adaptation is that the country now has a draft policy on climate change, the formulation of which has been driven by a powerful Ministry (Development Planning planning), and that the NCCC has been recognized as a critical player in that process, coordinating input into the policy from all relevant sectors. Using the Standard capacity scores system (such as the UNDP Capacity Scores), the four direct outcomes have laid the foundation for individual, institutional and system capacity for the country to mainstream climate considerations into development planning.<br>Thirdly, the timing of this project was opportune, relative to the National Climate Change formulation process. This enabled it to utilize a very limited budget (MSP) to make targeted and useful contribution to the important policy formulation process. Because it was very relevant to a current affair, it has generated high political support and stakeholder participation, culminating into high national ownership and drive. | situation to be shifted. This is however ameliorated by the high political support for the process of mainstreaming climate risk into development planning, informed by the series of droughts experienced in the country recently, especially the 2015-2016 La Nina drought. |
| Securing resilient Development Planning and livelihoods in the country | All the four direct outcomes and the two intermediate results | Existence of the Climate Change Policy;<br>Building blocks for the individual, institutional and systemic capacities;<br>Increased awareness and engagement of the general population on climate change, risks and opportunities debate;<br>Political will for mainstreaming climate risk into Development Planning policies, programs and plans, which in-turn creates enabling Environment to mobilize domestic and international finance; | In addition to the analysis above, there are several assumptions that might derail the realization of the ultimate impacts, detailed in the RToC analysis. They include:<br><br>The need to shift traditional beliefs about weather and climate change, to increase faith in climate science and its adoption in decision-making.<br>To ensure that climate information and early warning services are not politicized.<br>To increase resources for available for upscaling;<br>To increase resources to address non-climate related challenges and vulnerabilities, e.g. weak extension, inadequate use of input in agriculture, overgrazing, human and animal health, limited infrastructure, etc.);<br>Short and medium-term climate related weather variability does not outpace acquired adaptive capacity. |

## 2.6 FINANCIAL MANAGEMENT

90. The financial management is rated moderately satisfactory for two reasons: a) the budget prepared and approved was for three years with a four year work program, with core activities dependent on co-finance for which the project did not have a clear strategy of mobilizing; b) the inaccurate quarterly financial reports in the second half of 2015 and early 2016 had dire effects on the project - they caused delayed disbursements in 2016, leading to two applications for cost-neutral extensions. Indeed, the evaluation finds that project reporting was excellent until the end of 2014 and somewhat erratic since then. However, the project had regular financial reports, except those cited above; it conducted regular audits and revised budgets for the cost-neutral extensions; all the partner legal agreements are available and the PM and the FMO are sufficiently aware of the project finances (except for the co-finance). Details are contained in the sections below.

### 2.6.1 COMPLETENESS OF PROJECT FINANCIAL INFORMATION

91. Completeness of project financial information is rated Moderately Satisfactory. The Project Manager, in consultation with the Task Manager and the National Project Director, managed the project budget. Thus, UN Environment and the GoL procedures guided the management of the budget. However, as reported in the project design section, the approved budget for the NAPA project only covered three of the four years the project work plan covered. Combined with the fact that the project design was quite ambitious, the Terminal Evaluation concludes that the budget provided by the Global Environment Fund, as well as pledged by co-finance, was inadequate for the program of work approved in the Project Document. As detailed in Table 11, the project underwent independent audits in 2012, 2013, 2014, and 2015, without any adverse findings. However, the 2014 audit report highlighted the lack of co-finance, and recommended that the project management pursue the necessary co-finance to enable the project meet its financial obligations. The audit management response for the 2014 audit recommendation is not available to the Terminal Evaluation.

92. Table 12 presents the planned budget versus actual expenditure by the end of June 2017. The project registered an overall expenditure of 91 percent of the budget. In addition to the Terminal Evaluation, other notable budget lines with a low percentage of expenditure were Senior Technical Advisor (70 percent), Anti-erosion works equipment, and rentals (64 percent), and audit costs (60 percent).

93. As reported in the project inception report, MTR and the PIRs, the budget was revised several times, with the approval of the Project Steering Committee and UN Environment, to cater for refinement made to the activities and outputs. The variations point to diligent and proactive financial management by the PMU and a willingness to embrace adaptive management to cope with implementation challenges as they unfolded over the course of the project. Updated and detailed budget revisions accompanied the Logframe revisions and the two Cost-Neutral extensions. Partner legal agreements are available for the project approval and the two Cost-Neutral extensions.

### *Table 11: Financial Management Table*

| Financial management Components: | | Rating | Evidence/ Comments |
|---|---|---|---|
| Questions relating to financial management across the life of the project: | | | |
| Compliance with financial requirements and procedures of UN Environment and all funding partners (including procurement rules, financial reporting, and audit reports etc.) | | MU | Smooth reporting up to end of 2014; erratic since then |
| Timeliness of project financial reports and audits | | MS | |
| Quality of project financial reports and audits | | MS | Due to the break in quality of financial reports in 2015 |
| Contact/communication between the PM/TM & FMO | | MS | Smooth communication till end of 2014, erratic since then |
| PM/TM & FMO responsiveness to addressing and resolving financial issues | | MS | |
| Provision of key documents to the evaluator (based on the provision of A-F below) | | | |
| A. | An up-to-date 'Co-financing and Project Cost's table | MU | Availed with great difficulty and multiple errors |
| B. | A summary report on the project's annual financial expenditures during the life of the project. | MU | |
| C. | Financial documents from Mid-Term Evaluation/Review (where appropriate) | n/a | N/A |
| D. | All relevant project legal agreements (e.g. SSFA, PCA, ICA) – where appropriate | yes | Available |
| E. | Associated financial reports for legal agreements (where applicable) | | N/A |
| F. | Copies of any completed audits | Yes | Audit reports available except for 2016 and 2017 |
| Demonstrated knowledge by the PM/TM & FMO of partner financial expenditure | | MS | Key financial reports have not been provided in the format required for the TE |
| PM/TM & FMO responsiveness to financial requests during the evaluation process | | MS | |
| Overall rating | | MS | Comments above |

### *Table 12: Planned budget versus actual expenditure by the end of June 2017*

| UNEP Budget Line | Total project budget | Cumulative expenditures to-date | Cumulative unspent balance to date | % of expenditure: actual/planned |
|---|---|---|---|---|
| Project coordinator | 35,416.5 | 33,045.4 | 2,371.1 | 93.3 |
| Meteorologist / EWS specialist | | 0.0 | 0.0 | 0.0 |
| Meteorologist / EWS specialist | 37,881.1 | 37,881.1 | 0.0 | 100.0 |
| DRM specialist (IC) | 15,263.3 | 11,932.4 | 3,330.9 | 78.2 |
| DRM specialist (NC) | 0.0 | 0.0 | 0.0 | 0.0 |
| Economist | 0.0 | 0.0 | 0.0 | 0.0 |
| Policy and Government analyst | 21,118.0 | 16,819.6 | 4,298.4 | 79.6 |
| Climate change adaptation specialist | 19,894.0 | 16,481.1 | 3,412.9 | 82.8 |
| SLM expert | 0.0 | 0.0 | 0.0 | 0.0 |
| Agriculture specialist | 0.0 | 0.0 | 0.0 | 0.0 |
| Communications specialist | 109,800.0 | 94,216.8 | 15,583.2 | 85.8 |
| Education specialist (IC) | 660.7 | 660.7 | 0.0 | 100.0 |
| Education specialist (NC) | 67,948.1 | 67,948.1 | 0.0 | 100.0 |
| Climate change adaptation technology expert | 0.0 | 0.0 | 0.0 | 0.0 |

| | | | | |
|---|---|---|---|---|
| Climate change adaptation technology expert | 0.0 | 0.0 | 0.0 | 0.0 |
| Senior technical Advisor | 77,500.0 | 54,900.7 | 22,599.3 | 70.8 |
| Forestry specialist | 0.0 | 0.0 | 0.0 | 0.0 |
| Water specialist | 0.0 | 0.0 | 0.0 | 0.0 |
| financial assistant; secretary | 58,643.5 | 58,643.5 | 0.0 | 100.0 |
| Travel IC mission | 2,492.0 | 2,492.0 | 0.0 | 100.0 |
| Travel to pilot sites | 37,808.8 | 36,543.9 | 1,265.0 | 96.7 |
| Site visits | 39,250.0 | 38,721.6 | 528.4 | 98.7 |
| Ministry of agriculture | 190,000.0 | 182,298.3 | 7,701.7 | 95.9 |
| Agriculture research institute | 117,000.0 | 112,975.3 | 4,024.7 | 96.6 |
| Private contractor | 0.0 | 0.0 | 0.0 | 0.0 |
| telecom company | 0.0 | 0.0 | 0.0 | 0.0 |
| private contractor | 0.0 | 0.0 | 0.0 | 0.0 |
| University | 0.0 | 0.0 | 0.0 | 0.0 |
| Association of journalists | 0.0 | 0.0 | 0.0 | 0.0 |
| Private consulting firm/team | 137,105.4 | 137,105.4 | 0.0 | 100.0 |
| training on climate monitoring | 18,634.0 | 18,634.0 | 0.0 | 100.0 |
| training on modelling, mapping and downscaling | 48,095.2 | 48,095.2 | 0.0 | 100.0 |
| rangeland management training | 10,906.1 | 10,906.1 | 0.0 | 100.0 |
| training on vulnerability analysis | 37,508.5 | 37,508.5 | 0.0 | 100.0 |
| Local community training DRM response | 3,500.0 | 0.0 | 3,500.0 | 0.0 |
| EWS community meetings | 9,528.8 | 9,528.8 | 0.0 | 100.0 |
| Local (national) meeting | 61,200.0 | 54,877.9 | 6,322.1 | 89.7 |
| laboratory equipment, seedlings, cattle | 92,000.0 | 88,651.3 | 3,348.7 | 96.4 |
| synoptic and automated weather stations | 180,000.0 | 176,117.2 | 3,882.8 | 97.8 |
| software, computers | 5,721.2 | 5,721.2 | 0.0 | 100.0 |
| cabling, telecom equipment and GSM or radio | 0.0 | 0.0 | 0.0 | 0.0 |
| anti-erosion works equipment, and rentals | 39,360.8 | 25,218.6 | 14,142.2 | 64.1 |
| office equipment | 19,077.2 | 19,077.2 | 0.0 | 100.0 |
| communications and logistics | 82,624.2 | 65,977.0 | 16,647.2 | 79.9 |
| Maps/printing/ publishing | 16,007.5 | 16,007.5 | 0.0 | 100.0 |
| Evaluation specialist (baseline study) | 23,515.0 | 23,515.0 | 0.0 | 100.0 |
| Operating Costs | 15,040.0 | 15,040.0 | 0.0 | 100.0 |
| Monitoring and Evaluation | 22,500.0 | 0.0 | 22,500.0 | 0.0 |
| Audit costs | 27,000.0 | 16,766.3 | 10,233.7 | 62.1 |
| Mid-term Evaluation specialist | 25,000.0 | 25,000.0 | 0.0 | 100.0 |
| Terminal Evaluation specialist | 30,000.0 | 0.0 | 30,000.0 | 0.0 |
| **As at June 2017** | 1,735,000.0 | 1,559,307.9 | 175,692.1 | 89.9 |

94. While the financial management of the project was generally satisfactory up to 2014, there were some serious issues in 2015 and 2016. An examination of the project reports (six monthly, PIR, thematic), minutes of PSC meetings and financial reports portrays the project as almost constituted by two different phases, with a different pace of implementation and character: a pre-2014 and a post-2014. The pre-2014 project had a fairly fast pace of implementation, with detailed, regular reports with evidence of active discussions between the Task Manager, the Project Management Unit and the Chief Technical Advisor on all the reports. During this phase of the project, the Project Manager and the Finance Management Officer showed strong awareness of the financial status of project, the quarterly financial reports and the six monthly progress reports are detailed and supported timely disbursements. There is indeed evidence in those reports that the good communication between financial and project staff members contributed positively to project implementation and delivery of results.

95. The post-2014 is less well-structured. From 2015, the pace of implementation slowed down, the PSC meetings are fewer and the minutes sketchy; the exchange between the TM, PMU and the CTA noticeably infrequent. The six-monthly report was subsumed by the PIR, which is annual, with the approval of the TM. The project requested, and was granted two cost-neutral extensions; the first in February 2016 and the second in December 2016. The first extended the project to December 2016 and the second extended it to December 2017. As reported in the sections above, both extensions were necessitated by the delayed disbursement of funds to cover implementation in late 2015 and 2016. Disbursements for these two years was delayed due to delayed approval of the expenditure reports from Q3, Q4 (2015) and Q1 and Q2 (2016), due to numerous queries on budget items such as travel costs, cost of training, a number of expenditures being reported under and incorrect budget lines, etc. It took a long time to clear these queries, which was slightly exacerbated by a three-month gap in TM (one left in June and was replaced by September 2016).

*PROJECT CO-FINANCE*

96. Co-finance constituted 61 percent of project cost (US$ 2,721,500 of the total cost US$ 4,456,500). The Government of Lesotho was to provide additional in-kind co-finance, to bring its total contribution to US$ 3,042,000 (Table 4). UNDP-AAP Project was to provide co-finance of US$ 830,000. The project experienced great difficulty accessing Grant co-finance, which impacted the project negatively. The government provided about 71.3 percent of its planned grant co-finance ($ 932,000 against the planned 1.307,000). It however compensated by increasing in-kind co-finance, exceeding the planned by 82.5 percent (providing $1,067,000 against a planned $584,500). The Africa Adaptation Programme did not provide any co-finance. Overall, 73.5 percent of total co-finance was realized (Table 13).

***Table 13: Planned and Realized Co-finance***

| Co-financing (Type/ Source) | UN Environment own Financing (US$1,000) | | Government (1,000) | | Other (Africa Adaptation Programme) | | Total Planned | Total Disbursed (1,000) |
|---|---|---|---|---|---|---|---|---|
| | Planned | Actual | Planned | Actual | Planned | Actual | | |
| Grants | - | - | 1,307,000 | 932,000 | | | 1,307,00 | 932,000 |
| In-kind | | | 584,500 | 1,067,000 | 830,000 | - | 1,414,500 | 1,067,000 |
| **Totals** | **-** | **-** | **1,891,500** | **1,999,000** | **830,000** | **-** | **2,721,500** | **1,999,000** |

### 2.6.2 COMMUNICATION BETWEEN FINANCE AND PROJECT MANAGEMENT STAFF

97. Communication between finance and project management staff was rated Moderately Satisfactory. This is because there was active communication between finance and project

management staff until 2014 when the frequency of communication decreased. However, it still carried on, only less frequently than in pre-2014.

## 2.7 EFFICIENCY

98. The Terminal Evaluation finds that state of timeliness and cost-effectiveness leads to an overall rating of Moderately Unsatisfactory on efficiency. Implementation took more than twice the approved budget time (72 months instead of 36 months). It went through two cost-neutral extensions of one year each; and the delays in producing the lessons from the trialing of adaptation technologies in the six villages' means that neither the National Climate Change Policy process nor the mainstreaming of climate change in the education curriculum have been informed by these trails, as anticipated in the project design. The detailed analysis is presented in the paragraphs below.

### 2.7.1 TIMELINESS

99. Table 14 shows the planned versus actual milestones. The project was approved by the Global Environment Fund in June 2011 and was expected to be implemented in 48 months, with an expected closure date of July 2015. However, the project requested, and was granted two cost-neutral extensions (Approval letters in Annex 4). It closed in December 2017. The delays were caused by the following challenges:

a) Inadequate details for implementation during project design: although the project design was relatively clear on the strategic issues, it lacked a realistic scope of work for the budget and timeframe allotted. It therefore required considerable interpretation and detailed analysis in the inception phase in order to create practical steps and actions to implement;

b) The project design was perceived to be too ambitious for the 48 months and the budget;

c) There was high staff turnover in both UN Environment and the LMS. The Project Manager at LMS changed twice, and the Task Manager at UN Environment three times. Although having one Technical Advisor throughout the project lifetime ameliorated the negative impacts of these frequent staff changes, the consequent recruitments still slowed down the momentum;

d) Critical co-finance was not being provided in accordance with the overall project work plan. In addition to the examples of missing co-finance discussed elsewhere, the 2015-16 changes in the senior management for the Department of Research in the Ministry of Agriculture resulted in the withdrawal of transport previously provided as co-finance. This happened while the severe drought was wreaking havoc to the previously successful trials of adaptation technologies;

e) There was delayed disbursement of funds in 2016, causing further delays, especially of providing extension services to the trialling of adaptation technologies and pilot testing the protocol on integrating climate change into the education curriculum.

***Table 14: Planned versus actual milestones***

| Milestone | Planned | Actual |
|---|---|---|
| Global Environment Fund Approval Date | 15 June 2011 | 15 June 2011 |
| UNEP approval date: | 29 August 2011 | 29 August 2011 |
| Date of first disbursement | 29 September 2011 | 29 September 2011 |
| Actual start date: | September 2011 | |
| Planned duration: | 48 months | 66 |
| Intended completion date | July 2015 | December 2017 |
| Mid-term review | September 2013 | May 2014 |
| Terminal Evaluation | September 2016 | December 2017 |

### 2.7.2 COST-EFFECTIVENESS

100. The Terminal Evaluation finds that despite the delayed implementation described above, the project stakeholders applied several measures to ensure cost-effectiveness, and to respond to two facts that the project stakeholders realized early on in the implementation process. I) the budget was inadequate to implement the planned program of work (ambitious design). 2) Co-finance was not going to be provided as prescribed in the project document. Cost-effective strategies applied include:

a) Following a recommendation by the MTR, the PMU, to the extent possible, lumped together requests made to the MWE procurement office. This improved the efficiency of procurements, while minimizing government's administrative costs and time;

b) The project piggybacked on the Ministry of Development Planning-led national climate change policy. Undertaking policy reviews and providing recommendations for mainstreaming climate considerations for the climate sensitive Ministries magnified the project achievements under Component 2 significantly;

c) The project build relationships between the chiefs, the community councils, the district authorities, and the extension services, which provided a cost-effective strategy for providing extension service to the adaptation technology pilots. As pointed out by the MTR, this strategy worked because: a) Chiefs share advice and information, and can be encouraged and motivated by a good relationship with extension services; b) Community councils implement the decisions of the district council. They therefore organize communal work at the village level; c) The district council is host of the extension services. It manages the budget and work schedules of the extension service. This is critical for ensuring extension support to the adaptation technology trials.

d) The Project Management Unit (PMU) was housed by the Lesotho Meteorological Services (LMS), under the supervision of the National Project Director, who was also the Director of LMS. This guaranteed the project direct attention of senior management in LMS and within the larger Ministry and Government. A downside to this was the decision to use the LMS procurement procedures, which caused some delays in procuring consultants and equipment;

e) The consortia approach to implementation among the Ministries (modelled on previous use in other projects), rather than a series of consultancies and reports, is an effective model for government-executed projects that have elements of research, planning and on-the-ground activities. However, this arrangement can also be a bottleneck if the government withdraws the in-kind co-finance, as happened in 2016 when the Ministry of Agriculture withdrew the transport co-finance.

f) The Project hired a Technical Advisor, on a part time basis. In addition to the continuity in technical advice, the project was able to draw on the regional and international networks of the Technical Advisor (and the parent company) to recruit regional and international consultants to bridge the gap caused by the dearth of climate scientists and technicians in Lesotho. This was particularly useful to avoid further implementation delays during staff changes in LMS and UN ENVIRONMENT;

## 2.8 MONITORING AND REPORTING

101. The overall rating on monitoring and reporting is Moderately Unsatisfactory. This rating was aggregated from the sub section elements ratings. Evidence provided supports a Moderately Unsatisfactory rating for sub -elements: Monitoring Design and Budgeting, Monitoring of Project Implementation as well as Project Reporting. The Terminal Evaluation finds that although the project had a monitoring and evaluation (M&E) plan at project inception, it was inadequate. It had indicators although not all of them met the SMART criteria (specific, measurable and achievable, relevant and timely). It lacked a detailed M&E action plan showing data collection methods and frequencies, or persons responsible for data collection, processing, and use. The indicators were

not disaggregated along gender lines and the budget allocated to monitoring, mid-term, and Terminal Evaluations/reviews was inadequate. However, adaptive management addressed some of the short-comings; the indicators were revised and the budget reallocations increased funds for the MTR and the Terminal Evaluation. Detailed analysis is presented below.

### 2.8.1 MONITORING DESIGN AND BUDGETING

102. Monitoring design and budget is rated Moderately Unsatisfactory. The assessment is reached via analysis of the questions below.

**Was the M&E plan well-conceived and sufficient to monitor results and track progress toward achieving objectives?**

103. The Prodoc reported that the project M&E plan would follow UN Environment standard monitoring, reporting, evaluation processes, and procedures, and would be consistent with the Global Environment Fund Monitoring and Evaluation policy. The M&E system consisted of the Project Resources Framework (Prodoc Annex 4) and the Tracking Tool in Prodoc Annex 5. The project resources framework provided indicators for each expected outcome as well as mid-term and end-of-project targets. They included process indicators for tracking delivery of the outputs. The Tracking Tool described the high-level indicators and benchmarks for monitoring outcomes and contribution to impacts.

104. At the time of project approval 80 percent of baseline data on project indicators was available. However data was missing on the exact state of the meteorological equipment and infrastructures, and the precise distribution of income among the main economic sectors in each of the pilot locations in place at the beginning of the project. It was expected that in line with adaptive management, this data would be collected during the first year of project implementation, and that the Prodoc M&E plan would be reviewed and revised as necessary during the project inception workshop, to ensure project stakeholders understood their roles and responsibilities vis-à-vis project monitoring and evaluation. It was further understood that indicators and their means of verification could also be fine-tuned at the inception workshop.

105. The Terminal Evaluation confirms the MTR finding that although the original M&E plan was relatively basic and at times difficult to use, provision had been made for its refinement during the inception period and workshop. Some of the original indicators were not adequately SMART and required clarification and refinement of scope and intent, especially the Tracking Tool indicators. The project undertook the baseline assessment early on and used the information to review the indicators and M&E activities. As a result, seven indicators were retained, 13 were amended, two were removed and 13 new ones were added (Annex five shows the evolution of the indicators). As discussed in Section 2.5 (Assessing Effectiveness) the Terminal Evaluation finds that with the exception of Component 3, the indicator revision provided a clearer plan for monitoring delivery of outputs but at the same time reduced the emphasis on monitoring delivery of direct outcomes and their transition to intermediate outcomes. It also finds that the final list of indicators increased from 22 to 33; far too many indicators. The Terminal Evaluation also finds that given the action-research nature of interventions of Component 3, the revised indicators for the component were highly ambitious[24]. This would have become obvious to the stakeholders if the project had formulated a monitoring plan and mapped the actual monitoring processes for each indicator. Such a plan would show what data would be collected on each indicator (indicating gender segregation where necessary), data collection methods, frequency of data collection and the budget needed, person responsible for collecting this data and how the information would be processed and utilized. When applicable, additional gender specific indicators are developed. Such a monitoring action plan would expand the current "costed M&E plan" (Appendix seven of

[24] This is further discussed under Section 3.4 (Assessing achievement of outcomes for Component 3).

the Prodoc), which maps out the details of monitoring events rather than monitoring requirements per indicator.

### Was the M&E plan sufficiently budgeted and funded during project preparation and implementation?

106. The cost of implementing the M&E plan was provided in Appendix seven of the Prodoc and was estimated at US$ 126,000. However, excluding the cost of the Inception Workshop, MTR and TE, the budget for actual monitoring and evaluation is only US$ 46,000. This is just below three percent (2.65) of the total Global Environment Fund Grant of US$ 1,735,000. Although this is close to the "rule-of-thumb" recommended allocation to M&E of between three to five percent[25], it was inadequate, given the expanded number of indicators to be monitored. The consequent increase in monitoring budget was not commensurate with the higher number of indicators. It was therefore difficult to finance the data collection for monitoring, especially for the new indicators for Component 3. The 2016 PIR reported that data for Component 3 indicators would be collected as part of the Terminal Evaluation process, but no provision has been for it yet. This reflects the high cost that would be involved.

107. The MTR, the PIR and respondents to the Terminal Evaluation concluded that most of the cost of the monitoring was to be met via government co-finance, in cash or in-kind. Indeed, the only four of the eleven M&E activities in the "costed M&E workplan" had an actual cost estimate, while the cost for two were supposed to be determined as part of the annual work plan and/or during implementation. It is however noted that a number of the non-costed items are M&E elements such as PIRs, Terminal Report and progress reports which are completed by the NPC, CTA and TM, as part of their regular activities and do not require a separate budget. However, the allocation for both the MTR and Terminal Evaluation was US$ 25 000 and US$ 30 000 respectively, which was adequate.

### 2.8.2 MONITORING OF PROJECT IMPLEMENTATION

108. Monitoring of project implementation is rated as Moderately Unsatisfactory. The M&E Section of the Prodoc describes the implementation of the project M&E system. The M&E system was supposed to support adaptive management of the project. The Task Manager would develop a project supervision plan at the inception of the project and share it with project partners during the inception workshop. The Task Manager would focus on monitoring outcomes, without neglecting project financial management and implementation monitoring. The Steering Committee Progress would ensure monitoring of the delivery of the Global Environmental Benefits, at agreed intervals. Led by UN Environment, all project partners would regularly monitor project risks and assumptions. The PIR would report the annual achievements of the project, including the adaptation benefits and updated assessments of risks and risk mitigation measures. The quality of project monitoring and evaluation would be reviewed and rated as part of the PIR.

109. The Terminal Evaluation finds that although the project did not formulate a monitoring action plan, monitoring was carried out in accordance with the costed M&E plan (Appendix seven of the Prodoc) and that every effort was made to provide monitoring data within the constraints of extremely limited M&E budget. Indeed, with the exception of Component 3, the PMU regularly provided relevant and detailed monitoring data which was reported in the Annual Project Implementation Report (PIR). The PIR generation process provided a good platform for the stakeholders to discuss project progress and the issues influencing performance. The PSC reviews and approves the PIR for submission. A review of the minutes of the PSC meetings and email exchange between the PM, CTA and the Task Manager showed that there was usually a vigorous discussion of monitoring issues during the preparation of the PIR. However, many

[25] http://www.coffey.com/en/ingenuity-coffey/how-much-do-i-actually-spend-how-to-budget-and-plan-for-monitoring-and-evaluation/

partner institutions often sent new members to the PSC meetings, without background information or mandates to make decisions. This weakened the role of the PSC in monitoring the project. As explained in the previous section, there was no budget for collecting data on the revised Component 3 indicators, hence this data is missing from the 2016 PIR, and was not made available for the TE.

110. A Mid-Term Evaluation undertaken in the second quarter of 2014 rated the overall project performance at Moderately Satisfactory. The MTR provided a series of recommendations. However, there is no management response to the MTR and it is unclear how the project addressed the following recommendations:

a) R4. Address gaps in gender mainstreaming and integration of gender into final results reporting. The NPC and PM should make sure the necessary protocols and tools are available, and/or training is conducted to enable methodological consistency and accuracy of reported data on how the project addressed gender. Furthermore, specific measures should be taken to bring forward relevant lessons on gender and gender mainstreaming into phase II of the project.

b) R5. Enable collection and aggregation of quantifiable data and corresponding narratives to report upon project closing. Given the many adjustments to the results framework, late start to some activities under each component, and the need to report beyond the outputs levels to the extent possible, the PMU and PM should revisit data collection processes to establish a clear understanding of how quantifiable, disaggregated information, including unexpected results, will be gathered at project closing.

c) R6. Develop and execute an exit strategy and set up supporting arrangements to aid in the generation of results after project closing. The PMU and PSC should carefully design a strategy that distinguishes between elements that will be expanded under phase II - which are largely related to an upscale of the EWS, and support for policy and cooperation - and those that will be continued through government ownership of activities such as with demonstration sites and the roll out of climate change educational curriculum.

111. The lack of an exit strategy to address sustainability of the project results not taken up by Phase II poses a serious challenge for advancing the work under Component 3. The eventual failure of the adaptation technologies tested must generate very useful lessons for future adaptation projects. The Agriculture Research Department should undertake the cost benefit analysis of the trials, proposed in the project but did not happen, and provide policy recommendations from the lessons learnt. UN Environment should support the assessment by complementing it with a thematic analysis of best and worst cases of adaptation initiatives introduced by projects closed five or more years ago, representing a mix of donors and agencies, in, and outside Lesotho.

112. The Terminal Evaluation however finds evidence of the use of the monitoring data for adaptive management. There are many examples but the following stand out: a) the decision to review and refine indicators; b) the decision to adjust Component 4 and drop integration of climate change into the university curriculum; c) a decision to pay PMU salaries from the Government Co-finance for 2016 during the delayed disbursement from UN Environment. However, the Terminal Evaluation also finds that the lack of monitoring of indicators under Component 3 has serious implications to adaptive management and sustainability of the projects initiatives beyond the project. As explained elsewhere, despite initial success, some of the adaptation technologies failed in the later stages of the project – example – more than 85% percent of the tree seedlings and fruits died, poultry keepers lost more than 50 percent of the initial stock, the two water holes desilted have silted, etc. There were no corrective measures put in place to adaptively manage these initiatives.

### 2.8.3 PROJECT REPORTING

113. Project reporting is rated as Moderately Unsatisfactory. The project reports show that the project complied substantially with reporting requirements outlined in Annex 8 of the Prodoc. The key reports are outlined in Table 15 with a brief analysis of the state of reports:

114. In summary, the project has produced a number of good quality reports, in which data is gender segregated to the greatest extent possible. With the exception of reports relating to Component 3, the content of the technical and monitoring reports largely confirm the state of achievements by the project reported to the evaluator by the respondents to the Terminal Evaluation questions. The PIRs are all of high quality and reflect the scope of the project work adequately. In particular, the PIR and the updated Tracking Tool provide a discussion on the achievement of the outcome level results and provide an analysis of the state of drivers and assumptions driving the achievement of results.

***Table 15: Status of Project Reporting***

| Type of report | Status |
|---|---|
| Procurement plan - (goods and services) | Initial procurement produced during the inception period, and several more produced and made available |
| Inception Report | The Inception Report is clear and synthesizes the proceedings of the workshop held in Maseru in September 2011 effectively. |
| Expenditure report accompanied by explanatory notes | PMU produced high quality and timely reports up until 2014; 2015 reports were of poorer quality, which caused delays in disbursement of funds in late 2015 and most of 2016. |
| Half-yearly Progress report | Detailed, high quality half-yearly progress reports are available for up to mid-2014. These reports contain exchange of ideas (in terms of comments) between the Project Manager, the CTA, and the Task Manager. The Half-yearly report merged into the Annual PIR since 2015. |
| Audited report for expenditures for year ending 31 December | Audited reports are available for 2012, 2013, 2014, and 2015. None of them attracted a qualification. |
| Yearly co-financing report | Available up to 2016 PIR |
| Project implementation review (PIR) report | Detailed, high quality project implementation reports were produced for all years. This report is a joint effort between the Project Manager, the CTA and the Task Manager. It is commented on, and approved by the PSC. |
| Minutes of Project Board meetings Yearly (or as relevant) Project Manager | Detailed minutes of the PSC meetings are available for up to 2015. |
| Mission reports and "aide memoire" for executing agency | No copies have been made available to the Terminal Evaluation |
| Final report two months of project completion date Project Manager | Not yet done at TE |
| Final inventory of non-expendable equipment | Not yet done |
| Equipment transfer letter Project Manager | Not yet done |
| Mid-term review | Undertaken in 2014 and report availed to the Terminal Evaluation. Good quality report with clear observation, lessons and recommendations |
| Scientific assessment of pilot technologies report | This was scheduled for midway through the project or shortly thereafter. It does not seem to have taken place and the report is not available to the Terminal Evaluation. |
| Final audited report for expenditures of project | Not availed to the Terminal Evaluation |
| Independent Terminal Evaluation | This is under preparation (this report) |

## 2.9 SUSTAINABILITY OF OUTCOMES

115. The overall rating of sustainability of outcomes is Likely. The Terminal Evaluation finds that although the sustainability of project outcomes is highly dependent on social/political factors and are highly sensitive to institutional support, there is strong ownership, interest and commitment among stakeholders and government, which extends to the levels of government with the mandate and power to sustain outcomes, thereby mitigating dependency. These conditions are likely to secure sustainability, unless there is change in the current government policy and political will to mainstream climate risk into development. In addition, the National Climate Coordination Committee provides a mechanism to continue advocating and coordinating climate change initiatives. This will ensure that policy recommendations and other priorities identified by the project remain visible in the government planning processes, and eventually into budgeting, once the National Climate Change Policy is approved and implementation begins. In addition, sustainability of the outcomes is highly dependent on securing funding in the future. Fortunately, the National Climate Change Policy formulation process has already absorbed the outcomes of Component 2, the Ministry of Education has absorbed outcomes of Component 4, and the Government has formulated a concept for Phase II (submitted to the Global Environment Facility) to secure funding to further improve climate information institutions and practices in the country. However, an exit strategy is needed for handling outcomes of Component 3. Detailed analysis is provided below.

### 2.9.1 SOCIO-POLITICAL SUSTAINABILITY

116. The rating for the socio-political sustainability is Likely. The Terminal Evaluation looks at the socio-political sustainability of the national processes independently of the adaptation technologies trialed in the three pilot districts. This is because they have somewhat different prospects since the key players are different. On the national level, the outcomes to be sustained are the improvements in the abilities of the LMS to provide accurate and timely climate information and early warning services, integrating climate risk into sector policies and education system, heightened awareness and engagement in climate change debate by the population. The Terminal Evaluation finds that the implementation arrangement chosen for the project promotes socio-political sustainability of these results. The institutions responsible for these services implemented the project initiatives, in a highly participatory process. Over 90 percent of the respondents to the Terminal Evaluation questions from these institutions reported that it was highly likely that these outcomes would be sustained, primarily because the impacts of climate variability and change are currently being experienced by the majority of the people, at personal and collective level. This view is clearly influenced by the growing number of droughts and unusual cold weather, such as the November 2016 snowing in the Drakensberg Mountains.

117. The picture is not as clear with the adaptation technologies trialed in the three districts. Respondents to the Terminal Evaluation questions gave two competing, perhaps even contradicting responses/messages regarding the sustainability of the initiatives. Perhaps colored by the failure towards the end of the project of some of the adaptation technologies trialed, the respondents unanimously reported that they had no plans of sustaining drought tolerant crops, trees and fruit trees, poultry, range/brush clearing, water holes desilting, or stone lining for soil erosion control). However, they would continue with the keyhole garden and the breeding rams. At the same time, they sent very strong request for further assistance with adaptation technologies, stating clearly that awareness of climate risks and its opportunities is not useful unless accompanied by concrete, workable adaptation measures. Four issues came out clearly as the possible cause of this duality: a) Communities had not been involved in the choice of adaptation technologies to be trialed in their areas. For example while they recognized the potential of trees and fruits, they said they would have picked completely different varieties; b) the trials utilized a 'pay-for-work' model[26]. While this created employment and increased household incomes for the participating members, it also created a disincentive to do further maintenance

[26] Which is common in national programmes and very difficult to avoid in Lesotho

work without additional pay. This limited local level upscaling as well as long-term maintenance of, for example brush clearing, further desilting of water holes and construction works of the water tanks (the project budget catered for machinery but not the labor by local communities). c) While over 95 percent of the respondents confirmed receiving climate information and early warning messages, 60 percent of them (who received) felt the information still lacked accuracy for their localities, hence they did not use it in decision-making; d) No skills transfer had happened despite the training workshops and roadshows (discussed earlier).

118. However, although the sustainability of the specific measures trialed depend highly on the social political factors (75 to 99 percent), the communities, their local leadership and the country at large have demonstrated strong ownership of the climate challenge and the necessity of adaptation measures, and there is strong interest and commitment in government and local leaders to find and implement solutions. The Terminal Evaluation finds that the socio-political sustainability of adaptation measures would be high if the right strategy is found; one that involves stakeholders in identifying potential measures and balances extension and job creation. However, that will be in the future. For the present, the finding is moderately unlikely.

### 2.9.2 Financial Sustainability

119. The rating for financial sustainability is Likely. The Terminal Evaluation finds that all the direct outcomes delivered by the project will require further financial inputs to either sustain the current levels of benefits or to transition to intermediate results and eventually to bear impacts. The Climate Change Policy is still a draft that needs to go through the completion and approval process; climate sensitive sectors (such as agriculture, water resources, forestry, land) have identified measures necessary and required policy changes to integrate climate risk, but the actual work of policy reforms is still to be done. The improvements in the accuracy and timeliness of the climate information and early warning is still very limited compared to the baseline to be shifted, the protocol for integrating climate change into the education curriculum is yet to be completed and the lessons from the trialing of adaptation measures is yet to be concluded and policy briefs produced. The partners have a great deal of work to do to secure project results. Fortunately, the Government, with the technical assistance of UN Environment has developed a Phase II NAPA project, to mobilize domestic and international funds. The Government is therefore undertaking the following to mobilize further funding: a) It continues to pursue the Global Environment Fund funds for a Phase two NAPA project as well as other sources such as the Green Climate Fund. B) Government requested and secured funds from Development partners in the country to continue financing the NCCC. C) The country has a portfolio of other adaptation projects, which will likely pick up and continue the implementation of some aspects of the NAPA project. Examples include the USD 30 million (USD 9 million from the Global Environment Fund) UNDP-Global Environment Fund LDCF Project (*Reducing vulnerability from climate change in the Foothills, Lowlands, and the lower Senqu River Basin*); the US$ 10 million FAO LDCF project *(Strengthening capacity for climate change adaptation through support to Integrated Watershed Management Program in Lesotho*), etc. Financial sustainability of improving climate information is however dependent on monetizing (selling) the information to the end users. While this is implemented in several countries (for example Zambia, Malawi, Uganda) via a UNDP Climate Information and Early Warning Program, no results have been reported yet. It is recommended that the Phase II NAPA follow-up project look at the lessons generated by the UNDP Regional Program on the subject and determine whether it is worthwhile to pilot a payment system for climate information in Lesotho.

### 2.9.3 Sustainability of the institutional framework

120. The rating for the institutional framework is Likely. The Terminal Evaluation finds that sustaining the benefits from all the direct outcomes is highly dependent on issues relating to institutional frameworks and governance. As explained in the foregoing section, further policy reform is required to mainstream climate risks in sensitive sectors. Approval of the climate change policy is dependent of approval of the same by the Cabinet; the ultimate sustainability of the climate information and early warning systems would require privatization, which would

require policy reforms. The integration of climate risk into the education sector, once the results of the testing of the protocol in the 56 schools is known, will require further policy reforms in the education sector, etc.. However, the likelihood of sustainability of the project results was elevated by the following facts: A) the Ministry of Development Planning is leading the formulation of the National Climate Change Policy, climate sensitive Ministries have already identified measures and policy reform required to mainstream climate risks into these sectors. B) The project has built considerable capacity of relevant individuals and institutions, which will likely continue supporting the policy work. C) Although the project has no exit strategy, Phase II (under design) will advance further improvement of the LMS climate monitoring and early warning systems and the mainstreaming of the climate risk into the education sector. The current political support and willingness to mobilize domestic and international finance also increases the likelihood of institutional sustainability.

## 2.10 FACTORS AFFECTING PROJECT PERFORMANCE

121. The overall rating for factors affecting project performance is Satisfactory. This is averaged from the ratings of the various factors under the heading, as described below.

### 2.10.1 PREPARATION AND READINESS

**Were counterpart resources (funding, staff, and facilities), enabling legislation, and adequate project management arrangements in place at project entry?**

122. Section Four of the Prodoc outlines the expected "institutional framework and implementation arrangements", which contains expectations for key counterpart resources. LMS is to act as "key coordinator for the overall project, and implement activities" under Component 1, and provide "leadership" under Components 2 and 3. Execution of activities in rangelands, livestock, and crops activities under Component 3 is to be largely carried out by MAFS, with the MFLR. The document describes the PMU as the Project Manager (also known as the national project coordinator), a Chief Technical Advisor (CTA) and Administrative and Financial Officer (AFO). The Prodoc provides a brief but sufficient description of required duties for each of these roles within and supportive of the PMU.

123. The Terminal Evaluation finds that there was a rapid project mobilization process that put the enabling environment in place for project start-up. As shown in Table 14 (Timeliness Section 2.7.1), the project was approved by UN Environment just two months after receiving the Global Environment Fund approval and the first disbursement happened a month later (Sept 2011). Staff mobilization followed immediately with the National Project Director and the Project Manager appointed from government ranks. A Chief Technical Advisor was recruited who organized the inception meeting, held in December 2011 (just six months after the Global Environment Fund approval). At the inception meeting, a participatory review of the Project Results Framework, indicators, assumptions and stakeholders was undertaken. A brief discussion of stakeholders' capacity to implement the project activities was held, without any major recommendations. The meeting developed the first annual, costed workplan and a detailed and compliant procurement plan was developed. The meeting approved the project governance outlined in the Prodoc and established the Steering Committee which had its first meeting back to back with the Inception Workshop. The PSC constitution followed the membership proposed in the Prodoc. The Terminal Evaluation therefore finds that all the measures taken between approval and inception noticeably strengthened the project design, achieving a rating of Satisfactory.

### 2.10.2 QUALITY OF PROJECT MANAGEMENT AND SUPERVISION

124. The rating for the quality of project management and supervision is Moderately Unsatisfactory. The Terminal Evaluation finds that the project had a Steering Committee that functioned moderately well. The PSC was established in Sept 2011 and has held regular meetings since then. However, all respondents to the Terminal Evaluation expressed a frustration with the

attendance to PSC meetings; institutions are usually represented but not necessarily by the same person, or a person with the mandate for decision-making. The PSC meeting held on Sixth December 2017 to discuss the preliminary findings of the Terminal Evaluation had two members who were attending a PSC for the first time, and who had very limited information on the project. The minutes of the PSC show two trends: Up until mid-2014, the minutes are detailed and have comments from UN Environment TM and the CTA. The minutes after 2014 are not as detailed and quite a number are missing for 2016 and 2017.

125. On management of the teams involved in implementation structures, the Terminal Evaluation finds that except for the CTA, the Project Manager, and the Project Officer (Finance), the project had no direct employees. The bulk of the activities were implemented through Partner Ministries (MAFS, Forests and Range Rehabilitation, MEWA) supported by consultants. The reviewer did not interact with any consultants. However, respondents from the LMS (National Project Director), PMU[27] and the partner ministries unanimously agreed that the overall coordination of the teams undertaking the tasks was above average. The only disappointing issue for majority of the respondents from implementing institutions was the way the delayed disbursements in 2016 was handled by both the LMS and UN Environment. They felt that there was not enough updates on the situation while it was on-going.

126. Review of the project reports highlights an active exchange of ideas between the TM, CAT, PM and project partners, particularly prior to 2014. This cordial relationship has no doubt contributed to the effectiveness of the project and the delivery of the results, especially of the pre 2014 Phase of the project. However, there was limited communication in 2016, when the project had no funds. In addition, there was no evidence of active discussion on the failing Component 3.

127. The Terminal Evaluation finds that the frequent staff turnover in all the institutions involved in the Project management often interfered with the implementation momentum. The project has gone through three Directors of LMS, two CTAs, three PMs and three TM at UN Environment. However, to a lesser extent, a similar difficulty has manifested with the partner Ministries and the Project Steering Committee, where the designated representative from the respective ministry is not the person that attends meetings, but rather a delegated person with less authority or whose position has marginal relevance to the project's decision-making. However, except for the PSC, staff turnover has been aided by hand-over notes. The staff of UN Environment (hence the TM) and the CTA were recruited competitively. The PM and the Project National Director are seconded by the LMS based on merit. While overall the staff were skilled adequately for the tasks allocated to them, the design and implementation of Component 3 demonstrates that those collective skills could have been applied to delivery better results on lessons from adaptation trials to inform policy formulation. On staff location, the Terminal Evaluation finds that the PMU was located within the LMS, which increased access to the government and decision-making structures. The CTA was located in South Africa, hired from a reputable company. This provided the project with networks that enabled easier recruitment of international consultants.

128. On whether the Implementation Agency provided good leadership towards achieving the planned outcomes, the Terminal Evaluation finds mixed findings. On the one hand, the respondents to the Terminal Evaluation from all the institutions involved in the project that were in direct contact with the UN Environment confirmed that the technical support from UN Environment was largely excellent, despite the regular staff turnover. The Terminal Evaluation however finds that the UN Environment and the CTA should have provided better guidance for Component 3: in the choice of adaptation technologies to be trialed and the design of the trials. In particular, there should have been more debate on the choice of the most vulnerable people in the most vulnerable villages of the most vulnerable districts without control trials in areas with the lower levels of vulnerability. Stakeholders could have been involved in the choice of technologies to test and tree nurseries could have been established in the villages to provide mitigation measures. The lessons generated from these trials should have already been written

[27] Doesn't include CTA yet in interviews

up to inform the policy process and the project final report should have been written to inform the Terminal Evaluation process.

129. The Terminal Evaluation finds that the project Team demonstrated adaptive management. There was speedy responses to execution challenges or contextual changes – as demonstrated by: i) refinement of indicators during the inception workshop and after the baseline data collection; ii) adjusting outcomes where necessary (e.g. two and four); iii) requesting and being granted cost-neutral extensions, twice. Adequacy of management response to any financial shortfalls, response shows clear prioritization and movement of funds to meet implementation and all accountability requirements where required; the government showed financial commitment by providing seed funding for the operations of the PMU during 2016 when the disbursements from UN Environment delayed.

### 2.10.3 STAKEHOLDERS PARTICIPATION AND COOPERATION

130. The rating for stakeholder participation and cooperation is Satisfactory. The Terminal Evaluation finds that project implementation began, and was undertaken, with a good analysis of stakeholder groups (all those who are affected by or could affect this project). The project formulation was based on a stakeholder analysis, which led to a list of stakeholders and their roles in the project, detailed in Section five of the Prodoc. However, there was no actual stakeholder participation plan to actualize the expected collaboration and/or participation. Thus only a few of those stakeholders listed the Section have taken up active participation, especially those who had a direct outcome or output to deliver. Recommendation – that projects should formulate a stakeholder participation plan – annexed to the Prodoc – subject to evaluation at MTR and TE.

131. However, the project reports, PIR, and responses to the Terminal Evaluation questions show that there was active participation by the following: Partner and other Ministries – the National Climate Change formulation process, led by the Ministry of Development Planning, created a huge demand for the policy briefs produced by the project. This increased the participation by all those Ministries who needed to review their own policies and identify action points for mainstreaming climate risk. B) For the Education sector, developing the Protocol for mainstreaming climate change into the education sector, in a participatory process, and test piloting it in over 50 schools has increased the participation of that sector into the discussions about climate change tremendously. C) For the public, training journalists on reporting about climate change and giving them a platform to show-case their skills, has increased the visibility and access to the language of climate change issues to the population. Combined with the intense drought of 2015-2016, the public has become more aware of climate change and its challenges to livelihoods. Respondents in the six pilot villages confirmed: over 90 percent of the respondents reported that they had become aware of climate change challenges in the last four years, and largely because of the project. D) Communities in the six pilot areas – as explained above, respondents in these villages – both men and women as well as youth, reported to have become more aware of climate risks through the effort of the project. It is interesting to note that many people attended the Terminal Evaluation, with over 100 people turning up in some villages. This, despite the fact that some of the adaptation technologies tested have failed.

132. The Terminal Evaluation also finds that there was considerable efforts by the project team to promote stakeholder ownership (of process or outcome). Despite the lack of a practical stakeholder participation plan, review of the project reports, minutes of the PSC and the Inception workshop demonstrate that the LMS and the project team have made great effort to involve stakeholders, and succeeded (as reported above). There is evidence of joint work planning events and exchange of ideas, during the PSC and other technical meetings.

133. The Terminal Evaluation finds evidence of consideration for environmental, social and economic impacts to the key stakeholders and linkages to poverty alleviation or impact on economic livelihoods. Consideration of the most vulnerable groups was in particular was demonstrated by the criteria established to pick the villages for trialing adaptation technologies,

developed during the Inception Workshop (and reported in the Inception Workshop Report). The project picked three vulnerable districts and two vulnerable villages within each district. A participatory process, led by the Head of the Village/Chief, selected the most vulnerable in the villages to be part of the trials. As reported elsewhere, this may, however, not necessarily be the best strategy for trialing uptake and cost effectiveness of adaptation technologies.

### 2.10.4 RESPONSIVENESS TO HUMAN RIGHTS AND GENDER EQUITY

134. The rating for responsiveness to human rights and gender equity is Unsatisfactory. This project was not subjected to a gender scoring. However, if it had it would most likely have been a score of zero – meaning Gender relevance is evident but not at all reflected in the project document. Project formulation was not informed by a specific gender assessment and it did not have a specific strategy for mainstreaming gender into project implementation. The relevant indicators are however, gender disaggregated and gender considerations have been demonstrated during implementation. For example, the project targeted equal number of female and male beneficiaries to project initiatives such as the training of journalists and participants in the trials of adaptation technologies. However, the project did not have a budget dedicated to mainstream gender or finance gender considerations.

### 2.10.5 COUNTRY OWNERSHIP AND DRIVENNESS

135. The rating for country ownership is Highly Satisfactory. The project aims to increase the accuracy and use of climate information and early warning systems in the country, mainstream climate change into policies of climate sensitive Ministries, mainstream climate change into the education sector and provide policy briefs containing lessons on the best practice adaptation technologies for agriculture and livestock based livelihoods. The Terminal Evaluation finds that the project involved all the relevant Ministries for the implementation of the activities to production of outputs to ensuring that the outputs are taken up by the relevant institutions and are utilized to produce outcomes, and are sustained to eventually produce impacts. LMS was responsible for the outcome on improving climate monitoring and dissemination of early warning systems, in line with its national mandate for the same. The involvement of the Ministry of Economic Planning with Component 2, which was led by LMS, provided a greater platform for national ownership of the process, especially with the formation of the National Climate Change Coordination Committee. Component 3 – piloting adaptation technologies – was led by the Department of Research of Ministries of Agriculture and Food Security and the Department of Range management of the Ministry of Forestry and Land Reclamation – in line with the mandates of both ministries. Lastly, the involvement of the Ministry of Education in the formulation and piloting of the Protocol for mainstreaming climate change into the education will ensure its sustainability. The Terminal Evaluation finds that there was very high commitment by the government partners, captured in the project reports, minutes of the Project Steering Committee and reported by all the respondents to the Terminal Evaluation questions. Although grant co-finance was not realized, the Ministries involved in the project provided in-kind co-finance via staff time and transport. Component 3, in particular, relied heavily on the availability of the extension officers at pilot sites in order to monitor and facilitate activities.

### 2.10.6 COMMUNICATION AND PUBLIC AWARENESS

136. The rating for communication and public awareness is Satisfactory. Output 4.1 was dedicated to implementing an awareness campaign, informed by current climate science and Lesotho-specific challenges and opportunities. The project therefore implemented a number of country-wide awareness campaigns on climate change, adaptation and adaptation options, focusing on early warning systems. It also produced many awareness-raising products including ten policy briefs, the protocol for mainstreaming climate into the primary and secondary schools' curriculum and articles written by the journalists that received training on reporting on climate change. As reported in previous sections, two drivers made the awareness raising campaign quite effective: the National Climate Change formulation process and the La Nina linked drought of 2015-2016.

These events meant that the government focused on the issue of climate change, its challenges, impacts and opportunities for the country, and supported the LMS to roll out climate information and early warning messages as a strategy to tackle the drought. These two events brought the attention of key audiences towards the project, increasing their awareness of its main messages and their usefulness to tackling the climate challenge. Communities in the six pilot villages confirmed this, with over 90 percent of the respondents now keenly aware of climate change and the potential technologies they can adopt to increase the resilience of their livelihoods, even though some of the trials had failed. The communities in the six villages expressed their desire to continue being part of further pilot testing of any adaptation technologies.

137. As reported in Section 2.5.2 on "effectiveness of achieving outcomes", the Terminal Evaluation finds that the communication / public awareness efforts have been effective in driving change towards results beyond outputs, especially in the following: a) creating policy enabling environment for mainstreaming climate risk into policies of five climate sensitive sectors; b) increasing understanding of climate risks by stakeholders across the spectrum – from policy makers to technical staff to community level.

### 2.10.7 CATALYTIC ROLE – CATALYTIC

138. Under catalytic role, the Terminal Evaluation examined whether the project has produced any public goods[28], if there is evidence of steps being taken to catalyse such public goods (for instance through the development of demonstration sites, successful information dissemination and training); and, whether there is evidence of replication and scaling up of the project's key results/ achievements /impacts.

139. The Terminal Evaluation finds that the draft National Policy on Climate Change, to which the project has made significant contribution, is both a public good and a demonstration of replication of the project results. The vulnerability mapping constitutes knowledge which will have application in many other development areas and projects/programs, thus the project outputs will likely be used beyond the current project context. Similarly, the eventual utilization of the protocol for mainstreaming climate change into education beyond the pilot schools will catalyse awareness raising and shaping of attitudes for the young for many decades. This is a cost effective strategy for increasing public engagement in tackling climate risks in a broad range of livelihoods and economic activities/programmes.

# 3 SUMMARY AND CONCLUSIONS

## 3.1 SUMMARY OF FINDINGS

140. The overall rating for the project is Moderately Satisfactory. This rating was obtained from using the ratings for the various aspects summarized in the Table below (Replica of Table 7).

| EVALUATION CRITERIA | Rating |
|---|---|
| Strategic relevance | Highly Satisfactory |
| Quality of Project Design | Moderately Unsatisfactory |
| Nature of External Context | Moderately Unfavourable |
| Effectiveness | Moderately Satisfactory |
| Financial Management | Moderately Satisfactory |
| Efficiency | Moderately Unsatisfactory |
| Monitoring and Reporting | Moderately Unsatisfactory |
| Sustainability | Likely |
| Factors Affecting Project Performance | Satisfactory |
| Overall rating | Moderately Satisfactory |

[28]A public good is a product that one individual can consume without reducing its availability to another individual and from which no one is excluded.

141. The NAPA project was a medium sized project (MSP) with a modest budget of US$ 1,735,000.00 and co-finance of US$ US$ 3,042,000: UNDP-Africa Adaptation Project (AAP) pledged co-finance of US$ 830,000. The rest was to be provided by various government departments, as both in-kind and parallel co-funding. The project reported a 95.1% expenditure (1,650,801.51.) by December 2017. The balance is committed to meet remaining project commitments. The project experienced great difficulty accessing Grant co-finance, which impacted the project negatively. The government provided about 71.3 percent of its planned grant co-finance ($ 932,000 against the planned 1.307,000). It however compensated by increasing in-kind co-finance, exceeding the planned by 82.5 percent (providing $1,067,000 against a planned $584,500). The Africa Adaptation Programme did not provide any co-finance. Overall, 73.5 percent of total co-finance was realized. The project had a three-year approved budget with a four-year work plan: however, implementation took almost 7 years.

142. The project implementation arrangement was largely suitable; however, involving civil society based in the three pilot Districts would have increased cost effectiveness of Component 3. Furthermore, the project management fell into two distinct Phases: the first three years, from inception in 2011 to 2014; and the last three years from 2015 to 2017. The pre-2014 Phase run smoothly with timely implementation and reporting. The post 2014 is less smooth with errors in financial reporting in 2015 eventually leading to two cost neutral extensions. It is possible that staff turnover in all the institutions involved in the project implementation caused the change in management style. The project has gone through 3 National Project Directors, 2 Chief Technical Advisors, 3 Project Managers, 3 Task Managers and 2 Financial Management Officers. Similar staff changes happened in partner ministries and the Project Steering Committee. This has affected transitioning of information, especially finances.

143. Monitoring and evaluation was underfunded, making it difficult for the PMU and partners to engage in meaningful monitoring, especially of Component 3. The lack of community involvement in selection of adaptation technologies to be trialed, combined with the lack of participatory M&E, may have contributed to the failed adaptation technologies, whose main cause is reported to be the 2015 – 2016 drought. Although this limited the application of adaptive management and learning, several refinements of the Logframe, indicators and budgets demonstrate willingness of the PMU and the project partners to engage adaptive management.

144. Gender mainstreaming was haphazard; made difficult by the fact that the project design was not underpinned by a gender strategy, and the indicators and targets were not gender segregated. In addition, the partner institutions lacked capacity for effective project implementation, yet the capacity building strategy had not been informed by a formal capacity assessment.

145. Answers to the key strategic questions outlined below;

146. The project's contribution to **improving the reliability of hydro-climatic data was highly satisfactory**. The project strengthened LMS's capacity to analyze climate information and provide early warning services through the installation of six-sets of fully functional AWSs and data transfer equipment together with the 'training of trainers' on AWS operation, climate and crop modeling and downscaling tools. It is also anticipated that trained staff will train others, further improving reach and sustainability. While the system was not pilot tested as planned, the LMS continuously provides climate information through multiple types of communication media as well as through Chiefs. This notwithstanding, the baseline situation was such that significant capacity gaps remain in comparison to what the MSP could deliver with the limited budget. The country requires an increase of the coverage of the AWS country wide, based on a comprehensive gap analysis. Furthermore, the 'skills gap' at pre-project baseline has not shifted significantly and will require further investment and a different training approach (than awareness raising) to increase the number of professionals in the field of climate science in country. While there was no assessment of the uptake of climate information and EWS from the project, two events were identified during the Terminal Evaluation that accelerated the use of improved information at national and local levels. These included the drought periods and the climate change policy

formulation process initiated by the Ministry of Development Planning which created demand for climate information.

147. **Capacities for resilient development planning** were strengthened through the project. The project contributed to policy documents recommending changes to mainstream climate change risks and opportunities for at least five Ministries. Major drivers enabling this include: i) the initiation of the development of the National Climate Change policy by the Ministry of Development Planning catalyzed further demand for services delivered by the project; and ii) the NCCC established by the project, which provided an excellent platform for coordinating sectoral inputs into the policy making process. The sustainability outlook for the NCCC is high as it has refined its terms of reference to ensure that it remains functional after the project ends.

148. **National policy-making informed by best practice and local demonstration** was rated as unsatisfactory. In spite of showing early signs of success, many of the adaptation technologies performed poorly and had failed by the time of the Terminal Evaluation. Targets for pilots were not monitored and also found to be largely unrealistic given the resources available and the design of testing the adaptation technologies (with the three target Districts and households being the most vulnerable). As no final reports were available, there were no conclusive lessons from the trials at the time of the Terminal Evaluation. The Terminal Evaluation suggests that perhaps a review of best practices of adaptation measures/technologies in the country, the region and globally might have been more appropriate given the scope and budget of the project, and the fact that such measures need to be proven successful over a period of time before they quality as best practices for upscaling.

**149.** The Terminal Evaluation rated the project's contribution to **increased public engagement and endogenous capacity to manage climate change impacts** as satisfactory, although there was no baseline assessment of levels of awareness at the beginning of the project. The education sector was involved in the undertaking of an education audit which recommended that the developers of the new integrated primary school curriculum make a conscious effort to introduce climate change and its impacts into the curriculum. Furthermore, the sector was also involved in formulating the toolkit for integrated climate change content into the curriculum, which was being tested in 56 schools. From the interviews carried out during the Terminal Evaluation, it would appear that students and teachers participating in the pilot testing are increasing their awareness of climate change issues tremendously. The Terminal Evaluation also finds that awareness and engagement on climate change debate has increased tremendously amongst public and media. This was driven by the 2015-2016 drought which was responded to by the LMS through increasing discussions on climate change and disseminating climate information and early warning messages through all media outlets. This was further boosted by the project training of journalists, providing them with skills and information for more accurate and effective communication/dissemination of climate information.

## 3.2 LESSONS AND RECOMMENDATIONS

### 3.2.1 LESSONS

150. **Lesson 1:** Although the NAPA project failed to achieve the target on delivering a National Policy on Adaptation with budgets for its implementation, this was an extremely ambitious target: countries have a climate change policy, which include both adaptation and mitigation; adaptation is a cross cutting challenge which needs to be mainstreamed in all the ministries responsible for climate sensitive sectors. While the parent ministry of the Lesotho Meteorological Services could review policies of other ministries, it does not have the political wherewithal to enforce mainstreaming in larger ministries such as Finance, Development Planning, etc. Indeed, while all these ministries can collaborate and develop a draft policy, the Cabinet has the mandate for approving all policies in the country, and allocating budgets for implementation. It is therefore risky for a project to set a target of an approved policy with finances to implement the policy provision. Nevertheless, the NAPA project was timely as the country started a process of

developing a National Climate Change Policy soon after project implementation started, spearheaded by the powerful Ministry of Development Planning. This created a demand for climate information as all the ministries had to review their policies to identify measures to integrate climate risk into the policies. Timing of a critical input into a national process can be a key determinant of success for a project. While it would have been difficult for the project to deliver a national adaptation policy due to the limited budget and influence over policy changes of other ministries, the support it provided to the review of the policies of other ministries played a catalytic role in increasing public engagement in the policy and climate change discourse.

151. **Lesson 2:** Three important outputs had no project budget allocated and were expected to be financed by co-funding, yet the project did not have a specific strategy of mobilizing the co-finance in tandem with the project work plans. Although about 25 percent of co-funding was realized, including the three additional automated weather stations, there was shortage of funds for designing and implementing a targeted early warning system, which was supposed to be piloted in three villages. It is therefore risky to allocate co-finance budgets to important project interventions without a specific strategy for mobilizing the co-finance in synchronicity with the project workplans.

152. **Lesson 3:** Closely related to the issues outlined in lesson 2 – this project was only part of a larger project first designed for a much larger budget; which had to be scaled back to fit the available budget allocated by the Least Developed Country Fund at the time. However, the process of scaling back led to a program of work that was not adequately funded. Indeed, the Global Environment Facility approved a four year work project with a budget for three years. The project components therefore required further interpretation and re-write to identify practical implementation strategies and actions. It is critical to align a project strategy with the available resources.

153. **Lessons 4:** Under Component 3, the project expected to pilot test adaptation technologies, learn lessons, and distil them in the form of policy recommendations, which would influence the content of the Adaptation Policy (Component 2) and the awareness raising strategy (Component 4). This was highly ambitious given that the project had to start by identifying project sites, mobilize communities, and implement the trials, while the processes of policy formulation and awareness raising were on going in parallel. It is important to synchronize project results that build on each other adequately. Failure to do so weakens project design. A review of adaptation best practices from the region and globally might have been more appropriate given the scope and budget of the project, and the fact that such measures need to be proven successful over a period of time before they qualify as best practices for upscaling.

154. **Lesson 5:** The adaptation trials under Component 3 were conducted under very difficult conditions, targeting the most vulnerable households in the six most vulnerable villages of the three most vulnerable districts. No control trails were implemented under less difficult conditions to provide a counterfactual. Despite showing early signs of success, most of the initiatives had failed by the TE. The failure can be attributed to a combined effect of weakness in the design of the trials, the drought of 2015-2016 and the lack of project funds to follow up in 2016, occasioned by disbursement delays. The cost benefit analysis proposed in the project, but not yet undertaken, should provide clarity on the cause of the failure and provide recommendations for further adaptation work in Lesotho and globally. The lesson here is that when adaptation technologies are trialed in extreme conditions without control trials, it is difficult to determine what drives failure or success.

155. **Lesson 6:** The communities and civil society were not involved in planning the trials of the adaptation technologies, a fact they recognized as contributing to the limited success of these trials (Component 3). Community involvement in all aspects of planning adaptation technologies is critical for achievement of results and sustainability.

156. **Lesson 7:** Although the project attempted to report along gender lines wherever possible, this was made difficult by the fact that the project design was not informed by a gender analysis, the

project did not have a strategy to mainstream gender in its implementation, monitoring and evaluation. It is recommended that the Phase II design be informed by a specific gender strategy which should be used to systematize gender mainstreaming in both project implementation and M&E.

157. In summary, although the project design was ambitious for the budget available and implementation took twice as long as the original plan, the project delivered significant results, especially in policy and advancing public engagement in climate change debate. The project implementation arrangement was largely suitable; however, involving civil society based in the three Districts would have increased the cost effectiveness of Component 3. Although the adaptation technologies trialed by the component failed, the project should still undertake the planned cost benefit analysis and generate conclusions to inform the finalization of the draft National Climate Change Policy and further planning of adaptation projects and programs. The Phase II project should provide further support to improving capacity for climate information and early warning systems. Further funding should be mobilized to support the roll out of the program of implementing integration of climate change issues in the curricula of primary and secondary education.

### 3.2.2 RECOMMENDATIONS

158. **Recommendation 1:** The Terminal Evaluation finds that there was inadequate understanding of the capacity required in the partner ministries for effective implementation, because no formal capacity assessment was undertaken during project design. Although most Ministries with the mandate for project related activities are willing to lead implementation of relevant components, they do not always have the capacity to do so within the constraints of a project. A formal capacity assessment, using standard Capacity Score Cards, provides an opportunity for internal reflection by the partners (such as the Ministries and others) and identification of a capacity-building program for the project. The Terminal Evaluation therefore recommends that institutions involved in the Phase II project go through a formal capacity assessment during the design of the project, to allow those to be involved to understand their capacity gaps in relation to the project, in addition to providing baselines for monitoring capacity development components.

159. **Recommendation 2:** The six automated weather stations delivered and the 20 technical staff whose skills were upgraded by the delivered by the project are too few to make significant improvements in the capacity of the Lesotho Meteorological Services to monitor weather and provide accurate and timely early warning services and other climate information. The Phase II Project (currently being designed) should build on the successes of the NAPA project to expand the coverage of automated weather stations in the country. The number of the necessary stations should be determined through an assessment of the minimum coverage (as well as the budget). It should also include a skills development component (via co-finance), at both technical and community levels, preceded by capacity assessments of potential partners. This should include increasing the number of climate change scientists in the country, at the Bachelors and Master's Degree levels.

160. **Recommendation 3:** The project has entered into an agreement with the Ministry of Education to continue the piloting of the protocol for integrating climate change issues into primary and secondary school curricula. The 2016 delay in disbursement affected the timely testing of the protocol. While the Ministry of Education has a budget for the piloting Phase, it may not have adequate resources to roll out of the results of the testing nationally. If the Phase II project cannot support the education component, both the government and the UN Environment should mobilize further funding to support the integration of climate change into the education curriculum. Further work on the issue should include an assessment of the levels of awareness and engagement of education sector stakeholders on climate change debate.

161. **Recommendation 4:** The project monitoring and evaluation plan was both simple and underfunded. The project did not have a monitoring action plan, which limited the use of monitoring information for adaptive management. This may have contributed to the failed trials

of adaptation technologies. The Phase II project should allocate an adequate budget to monitoring and evaluation (between three and five percent of total budget) and develop a project-performance monitoring plan during project design. This action plan should map out actual monitoring processes for each indicator. It should show what data would be needed for each indicator (indicating gender disaggregation where necessary), data collection methods, frequency of data collection and the budget needed, person responsible for collecting this data and how the information would be processed and utilized. When applicable, additional gender specific indicators should be developed.

162. **Recommendation 5:** Despite showing early signs of success, many of the adaptation technologies faltered, and had failed by the time of the Terminal Evaluation. More than 90 percent of the tree and fruit seedlings died, more than 80 percent of the higher value grass died, more than 70 percent of the chickens died, and 75 percent of the drought tolerant seeds lost due to the 2015-2016 drought. Two out of the six villages reported using the grazing plans or having an active Grazing Association; however, their use was suspended following the 2015-2016 drought. Construction of the water tanks is yet to be completed in three (of four) villages. The two waterholes desilted by the project had silted back, with community members reporting that they stored water for only a few months in a year. There was evidence of re-emerging bush in the previously cleared grazing areas and no evidence of uptake of stone lining demonstrated by the project. However, the keyhole gardens were thriving in all six villages and only two rams had died (from the original herd of ten), although challenges of circulating the offspring as well as sharing the original rams have emerged. Although lessons from previous projects informed the choice of adaptation technologies to be trialed, there is no mechanism of sharing this information with the projects/institutions that generated the lessons, losing a chance for debate about the circumstances under which such technologies can succeed, curtailing opportunities for incremental learning by the broader adaptation stakeholders.

163. The Terminal Evaluation argues that: i) the failure of the adaptation technologies trialed is not necessarily a failure of the project; trials, by nature, can go either way. However, the failure to capture the lessons to inform future adaptation programs and policy process is a project failing. The adaptation technologies were trialed with the most vulnerable members of the community in the most vulnerable villages of the most vulnerable districts. Without control trials under less harsh conditions, it is difficult to draw conclusions on what caused the failure: whether the trials failed because the adaptation tool box of Lesotho is weak; or whether the climate is getting more unreliable; or whether the technical support provided was inadequate, especially during 2016 when the project run out of funds; or whether the failure is a common occurrence once the project funding ends. The project should take this experiment to a conclusion; undertake the cost benefit analysis and provide lessons for future adaptation programming. There is also a need to assess the rate of success of trials of such adaptation technologies under similar conditions. This leads to recommendations six and seven: the ministries responsible for the trials should undertake a cost benefit analysis, draw conclusions, and disseminate lessons. This ought to be supplemented by a broader assessment of sustainability of impacts from adaptation projects closed for longer than five years, drawn from past portfolios of all the Implementing Agencies of the Global Environment Facility Adaptation projects, as well as those financed by other donors. The Phase II project design and implementation strategy should provide guidelines on how a project would formally interact with those projects providing lessons to its own design to the extent possible. This would provide practical guidance for project managers and stakeholders to continue the discussions on lessons. This is important for incremental learning and knowledge exchange, critical because the lessons do evolve and can change direction.

164. **Recommendation 6:** Related to the above – the sustainability of the adaptation trials is in doubt. Those participating gave two competing, perhaps even contradicting responses/messages regarding the sustainability of the initiatives. Perhaps colored by the failure towards the end of the project of some of the adaptation technologies trialed, the respondents unanimously reported that they had no plans of sustaining drought tolerant crops, trees and fruit trees, poultry, range/brush clearing, water holes desilting, or stone lining for soil erosion control).

However, they would continue with the keyhole garden and the breeding rams. At the same time, they sent very strong request for further assistance with adaptation technologies, stating clearly that awareness of climate risks and its opportunities is not useful unless accompanied by concrete, workable adaptation measures. Four issues came out clearly as the possible cause of this duality: a) Communities had not been involved in the choice of adaptation technologies to be trialed in their areas. For example while they recognized the potential of trees and fruits, they said they would have picked completely different varieties; b) the trials utilized a 'pay-for-work' model. While this created employment and increased household incomes for the participating members, it also created a disincentive to do further maintenance work without additional pay. This limited local level upscaling as well as long-term maintenance of, for example brush clearing, further desilting of water holes and construction works of the water tanks (the project budget catered for machinery but not the labor by local communities). This further supports the necessity and urgency of conducting the cost benefit analysis of the trials and to capture lessons to inform further adaptation programming.

165. **Recommendation 7:** While the LMS was mandated to coordinate the execution of project activities (with additional responsibilities for executing Components 1, 2 and 4), the original PMU staff members held non-permanent staff positions. While this provided the PMU great flexibility and motivation for performance, it also somewhat isolated the PMU from the rest of the Ministry. Allocating LMS staff to the PMU positions can however be a double-edged sword, if appointed staff do not have project management skills, and/or no provision is made to upgrade their skills. This was demonstrated by the change in project performance since 2015, when project management was taken up by LMS staff. The situation is exacerbated by staff turnover; the project has been managed by three different Directors of LMS (who is also the National Project Director), three Task Managers (TM) (UNEP) and two Chief Technical Advisors. The projects should provide skills development to the PMU to ensure smooth effective management and achievement of results.

# 4 ANNEXES

## 4.1 ANNEX 1: TERMS OF REFERENCE FOR THE TERMINAL EVALUATION

**UNITED NATIONS** **NATIONSUNIES**

### *OBJECTIVE AND SCOPE OF THE EVALUATION*

1. In line with the UNEP Evaluation Policy[29] and the UNEP Programme Manual[30], the Terminal Evaluation is undertaken at completion of the project to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements; and (ii) to promote operational improvement, learning and knowledge sharing through results and lessons learned among UNEP and the Government of Lesotho and other project partners. Therefore, the terminal evaluation will identify lessons of operational relevance for future project formulation and implementation especially for the second phase of the project.

2. It will focus on the following sets of **key questions**, based on the project's intended outcomes, which may be expanded by the consultant as deemed appropriate:

**Improved reliability of hydro-climatic data**

(a) Has the project helped Lesotho to effectively upgrade its climate monitoring network? Was this strategy effective in improving climate monitoring, prediction and early warning systems in the country? Is there any early evidence that the data collected through these networks have been used in decision making including national policy making? Who were the critical actors in the process? How can the results be best expanded upon in order for the second phase of the project to successfully set up a national-level monitoring system? What were the key drivers and assumptions required to influence decision-making?

**Stronger capacity for resilient development planning**

(b) Has the National Climate Change Committee (NCCC) set up under this project successfully contributed to Lesotho's long term adaptation planning under the National Adaptation Plan process? What is the sustainability outlook of the NCCC, will they keep meeting once the project is over? How did the NCCC Interact with the PSC and other project governing bodies?

(c) Were there policy documents and recommendations developed under the project? How did these policy documents influence local and national policy/decision making in the different sectors of the country?

[29] http://www.unep.org/eou/StandardsPolicyandPractices/UNEPEvaluationPolicy/tabid/3050/language/en-US/Default.aspx
[30] http://www.unep.org/QAS/Documents/UNEP_Programme_Manual_May_2013.pdf

**National policy making is informed by best practice and local demonstration**

(d) What is the sustainability of the on-the-ground interventions? Will the villages be using these past the end of the project as well as lessons learned? What strategy was adopted to capture best practices for resilient rural development and disseminate lessons learned? How were lessons learned from the demonstration sites communicated to relevant local and national actors? Is there any early evidence that these best practices influenced local and national policy/decision making?

**Increased public engagement and endogenous capacity to manage climate change impacts**

(e) Were the appropriate stakeholders involved in the implementation of the selected strategies? Did gender play a role in the success of the project and how were women involved particularly in the on-site activities?

(f) Is there any early evidence of the increased public awareness and capacity of local communities in pilot sites to identify and manage climate change impacts? Were the public awareness and community engagement strategies employed suitable and effective?

(g) Was the integration of climate change issues into educational curricula successful, and what has been the learning outcome of this? Will this strategy be rolled out through the whole country?

**Overall Coordination**

(h) How effectively and efficiently was the project planned, coordinated and monitored? Did the project have sufficient resources for implementation? What challenges, constraints and opportunities did the projects face in the implementation phases and how did they deal with these (adaptive management)? In terms of procurement, national co-financing and other processes, what are the lessons learned and how can the lessons be harnessed for the project's second phase?

(i) How did the project implementation arrangements (for instance the ad hoc technical advisory groups and the sub-group of the PSC) influence project decision making and buy-in? Will the implementation arrangements influence the sustainability of the results in the country? Are there lessons learned for the second phase and for other LDCF projects in this set-up?

## *Overall Approach and Methods*

3. The Terminal Evaluation of the Project will be conducted by an independent consultant under the overall responsibility and management of the UNEP Evaluation Office in consultation with the UNEP GEF Task Manager and the Sub-programme Coordinator of the Climate Change Sub-programme.

4. It will be an in-depth evaluation using a participatory approach whereby key stakeholders are kept informed and consulted throughout the evaluation process. Both quantitative and qualitative evaluation methods will be used to determine project achievements against the expected outputs, outcomes and impacts. It is highly recommended that the consultant(s) maintains close communication with the project team and promotes information exchange throughout the evaluation implementation phase in order to increase their (and other stakeholder) ownership of the evaluation findings.

5. The findings of the evaluation will be based on the following:

(a) A **desk review** of:

- Relevant background documentation inter alia UNEP Medium-term Strategy 2010-2013 and 2014-2017 and Programmes of Work 2010-2011, 2012-2013 and 2014-2015, the goals of GEF-

5 Climate Change Adaptation Strategy 2010-2014 and review of the GEF 6 Programming Strategy on Adaptation to Climate Change

- Project design documents (including minutes of the project design review meeting at approval); Annual Work Plans and Budgets or equivalent, revisions to the project (Project Document Supplement), the logical framework and its budget;
- Project reports such as six-monthly progress and financial reports, progress reports from collaborating partners, meeting minutes, relevant correspondence etc.;
- Project outputs as detailed in table 2 above;
- Mid-term review (MTR) of the project;
- Evaluations/reviews of similar projects

(b) **Interviews (individual or in group) with**:

- UNEP Task Manager
- Project management team
- UNEP Fund Management Officer and Assistant FMO;
- Project partners including:
  - Ministry of Natural Resources - Lesotho Meteorological Services,
  - Ministry of Tourism, Environment and Culture,
  - Ministry of Education,
  - Ministry of Agriculture and Food Security,
  - Ministry of Forestry and Land Reclamation, and
  - UNDP
- Relevant resource persons;

(c) **Surveys –** e.g. survey of the individuals who worked as part of the Project Steering Committee (PSC)

(d) **Field visits and interviews** – visit all six project demonstration sites in the three pilot districts**.** The visits will include Focus Group Discussions and Interviews with the village chiefs among other community stakeholders and beneficiaries

(e) **Other data collection tools** as will be discussed an agreed between the evaluation consultant and evaluation manager

## *KEY EVALUATION PRINCIPLES*

6. Evaluation findings and judgements should be based on **sound evidence and analysis**, clearly documented in the evaluation report. Information will be triangulated (i.e. verified from different sources) to the extent possible, and when verification was not possible, the single source will be mentioned. Analysis leading to evaluative judgements should always be clearly spelled out.

7. The evaluation will assess the project with respect to **a minimum set of evaluation criteria** grouped in five categories: (1) Strategic Relevance; (2) Attainment of objectives and planned result, which comprises the assessment of outputs achieved, effectiveness and likelihood of impact; (3) Sustainability and replication; (4) Efficiency; and (5) Factors and processes affecting project performance, including preparation and readiness, implementation and management, stakeholder participation and public awareness, country ownership and driven-ness, financial planning and management, UNEP supervision and backstopping, and project monitoring and evaluation. The evaluation consultant can propose other evaluation criteria as deemed appropriate.

8. **Ratings.** All evaluation criteria will be rated on a six-point scale. Annex 3 provides guidance on how the different criteria should be rated and how ratings should be aggregated for the different evaluation criterion categories.

9. **Baselines and counterfactuals**. In attempting to attribute any outcomes and impacts to the project intervention, the evaluators should consider the difference between *what has happened with, and what would have happened without, the project*. This implies that there should be consideration of the baseline conditions, trends and counterfactuals in relation to the intended project outcomes and impacts. It also means that there should be plausible evidence to attribute such outcomes and impacts to the actions of the project. Sometimes, adequate information on baseline conditions, trends or counterfactuals is lacking. In such cases this should be clearly highlighted by the evaluators, along with any simplifying assumptions that were taken to enable the evaluator to make informed judgements about project performance.

10. **Theory of Change (ToC)**. UNEP project evaluations make use of ToC analysis to help assess several evaluation criteria. The ToC of a project describes the causal pathways from project outputs (goods and services delivered by the project) through outcomes (changes resulting from the use made by key stakeholders of project outputs) towards impact (long term changes in environmental benefits and human living conditions). The ToC also presents any intermediate changes required between project outcomes and impact, called 'intermediate states'. The ToC further describes the external factors that influence change along the major impact pathways; i.e. factors that affect whether one result can lead to the next. These external factors are either drivers (when the project has a certain level of control) or assumptions (when the project has no control). The ToC also clearly identifies the main stakeholders involved in the change processes.

11. A ToC is best presented as a narrative accompanied by a diagram. A diagram is often useful to show an overview of the causal pathways, the cause-to-effect relationship between different results / changes, and where the drivers and assumption intervene along the results pathways. It is also a great tool for discussing the ToC with project stakeholders. The narrative, however, will explain how or why one result is expected to lead to another, and should also present the roles of the main stakeholders in the change processes and how they can be affected by the changes resulting from the project intervention.

12. The evaluation will reconstruct the ToC of the project at design and at evaluation, based on a review of project documentation and stakeholder interviews. Verifying, amending and updating the problem analysis at the origin of the project will be an essential first step in reconstructing the ToC. The evaluator is expected to discuss the problem analysis and reconstructed ToC with key stakeholders during evaluation missions and/or interviews in order to ascertain his/her understanding of the project context, the impact pathways, the roles of various stakeholders and the validity of drivers and assumptions described in the ToC. Annex 8 proposes an approach for reconstructing the ToC of a project at design and at evaluation.

13. Theory of Change analysis is used to assess an intervention's causal logic, effectiveness and likelihood of impact, but also to help assess many other evaluation criteria. For example, it can help to verify alignment of the project with UNEP's Programme of Work and the Sub-programme's Theory of Change, and help to assess the extent to which the project intervention responds to stakeholder priorities and needs. In addition, ToC analysis can support the assessment of sustainability and up-scaling by providing better understanding of the relative importance of outputs, outcomes, drivers and assumptions, along with the role of stakeholders, in sustaining and up-scaling higher level results. ToC analysis is also useful to assess adaptive management undertaken by the project to respond to changes in context and deal with false assumptions.

14. **The "Why?" Question.** As this is a terminal evaluation and a follow-up project is anticipated, particular attention should be given to learning from the experience. Therefore, the "*Why?*" question

should be at the front of the consultant's minds all through the evaluation exercise. This means that the consultant needs to go beyond the assessment of "*what*" the project performance was, and make a serious effort to provide a deeper understanding of "*why*" the performance was as it was. This would include reviewing the Theory of Change of the project and the processes affecting attainment of project results (criteria under category F – see below). This should provide the basis for the lessons that can be drawn from the project. In fact, the usefulness of the evaluation will be determined to a large extent by the capacity of the consultant to explain "*why things happened*" as they happened and are likely to evolve in this or that direction, which goes well beyond the mere review of "*where things stand*" at the time of evaluation.

15. A key aim of the evaluation is to encourage reflection and learning by UNEP staff and key project stakeholders. The consultant should consider how reflection and learning can be promoted, both through the evaluation process and in the communication of evaluation findings and key lessons.

16. **Communicating evaluation results.** Once the consultant(s) has obtained evaluation findings, lessons and results, the Evaluation Office will share the findings and lessons with the key stakeholders. Evaluation results should be communicated to the key stakeholders in a brief and concise manner that encapsulates the evaluation exercise in its entirety. There may, however, be several intended audiences, each with different interests and preferences regarding the report. The Evaluation Manager will plan with the consultant(s) and the PMU which audiences to target and the easiest and clearest way to communicate the key evaluation findings and lessons to them. This may include some or all of the following; a webinar, conference calls with relevant stakeholders, the preparation of an evaluation brief or interactive presentation.

## *EVALUATION CRITERIA*

### *STRATEGIC RELEVANCE*

17. The evaluation will assess, in retrospect, whether the project's objectives and implementation strategies were consistent with global, regional and national environmental issues and needs.

18. The evaluation will assess whether the project was in-line with the GEF climate change focal area's strategic priorities and operational programme(s). The evaluation will also assess the project's relevance in relation to UNEP's mandate and its alignment with UNEP's policies and strategies at the time of project approval.

19. The evaluation consultant can use the ToC at design (TOC-D) and ToC at evaluation (TOC-E) to verify the alignment of the project with UNEP's Medium-Term Strategy (MTS), Programmes of Work (PoW) and Programme Framework documents[31] for the period covered by the intervention. The evaluation will assess whether the project is intended to make a tangible/plausible contribution to any of the EAs specified in the MTS 2014-2017 and MTS 2010-2013 and/or outputs in the PoW 2010-2011. PoW 2012-2013 and PoW 2015-2015, and whether its ToC is aligned with the relevant Sub-programme's Theory of Change presented in the Programme Framework document.

20. Also, the problem analysis (needed to reconstruct the ToC at design) allows the evaluation consultant to verify whether the TOC-D took into account the whole complexity of issues the project set out to address, or whether some important elements were ignored or underplayed. Similarly, the updated problem analysis (needed to reconstruct the ToC at evaluation) can be used to verify whether any revisions to the project's intended results reflected in the TOC-E (e.g. updates to the project LogFrame)

[31] UNEP's Medium Term Strategy (MTS) is a document that guides UNEP's programme planning over a four-year period. It identifies UNEP's thematic priorities, known as Subprogrammes (SP), and sets out the desired outcomes [known as Expected Accomplishments (EAs)] of the Sub-programmes. Programmes of Work are biennial planning documents that set out, for each Sub-programme (SP), the desired outcomes (known as Expected Accomplishments) and outputs. Programme Framework documents are prepared for each sub-programme and present the overall sub-programme's Theory of Change.

took into account any changes in the problem situation and the project context that occurred during the lifetime of the project.

21. The evaluation should assess the project's alignment / compliance with UNEP's policies and strategies. The evaluation should provide a brief narrative of the following:

- *Alignment with the Bali Strategic Plan (BSP)*[32]. The outcomes and achievements of the project should be briefly discussed in relation to the objectives of the UNEP BSP.
- *Gender balance*. Ascertain to what extent project design, implementation and monitoring have taken into consideration: (i) possible gender inequalities in access to and the control over natural resources; (ii) specific vulnerabilities of women and children to environmental degradation or disasters; and (iii) the role of women in mitigating or adapting to environmental changes and engaging in environmental protection and rehabilitation. Are the project intended results contributing to the realization of international GE (Gender Equality) norms and agreements as reflected in the UNEP Gender Policy and Strategy, as well as to regional, national and local strategies to advance HR & GE?
- *Human rights based approach (HRBA) and inclusion of indigenous peoples issues, needs and concerns*. Ascertain to what extent the project has applied the UN Common Understanding on HRBA. Ascertain if the project is in line with the UN Declaration on the Rights of Indigenous People, and pursued the concept of free, prior and informed consent.
- *South-South Cooperation.* This is regarded as the exchange of resources, technology, and knowledge between developing countries. Briefly describe any aspects of the project that could be considered as examples of South-South Cooperation.
- *Safeguards*. Whether the project has adequately considered environmental, social and economic risks and established whether they were vigilantly monitored. Was the safeguard management instrument completed and were UNEP ESES requirements complied with?

22. Based on an analysis of project stakeholders, the evaluation should assess the relevance of the project intervention to key stakeholder groups.

### *Achievement of Outputs*

23. The evaluation will assess, for each component, the projects' success in producing the programmed outputs (products and services delivered by the project itself) and milestones as per the ProDocs and any modifications/revisions later on during project implementation, both in quantity and quality, as well as their usefulness and timeliness.

24. While the assessment of achievement of outputs should cover all programmed outputs at design and those outputs added by possible project revisions, it is often impossible to assess all project outputs with the same level of detail. The reconstructed ToC at evaluation (RTOC-E) can be used to determine what project outputs are most essential for achieving the project outcomes, and also to establish the minimum characteristics and quality requirements for the project outputs so that they can provide their expected contribution to the project outcomes. The assessment of achievement of outputs can then focus on the most critical outputs, and verify whether these meet the requisite characteristics and quality.

25. The evaluation should briefly explain the reasons behind the success (or failure) of the project in producing its different outputs and meeting expected quality standards, cross-referencing as needed to more detailed explanations provided under Section F (which covers the processes affecting attainment of project results). Were key stakeholders appropriately involved in producing the programmed outputs to promote their ownership and use?

[32] http://www.unep.org/GC/GC23/documents/GC23-6-add-1.pdf

## *EFFECTIVENESS: ATTAINMENT OF OBJECTIVES AND PLANNED RESULTS*

26. The evaluation will assess the extent to which the project's objectives were effectively achieved or are expected to be achieved.

27. The assessment of effectiveness will be structured in three sub-sections:

(a) Evaluation of the **achievement of outcomes as defined in the reconstructed ToC**. These are the first-level outcomes expected to be achieved as an immediate result of project outputs. Outcomes are often changes in capacity at the individual and institutional level33. For this project, the main question will be to what extent the project has contributed to the immediate outcomes34. For many projects, outcomes have not been defined at an appropriate results level. For others, no outcomes have been defined at all, but rather a project "goal", "purpose" or "objectives". The reconstructed ToC at design (RTOC-D) and at evaluation (RTOC-E) should have redefined the intended changes at the outcome level (see Annex 8), to make sure that the effectiveness of the project is assessed at the outcome level, and not at the output level (which is assessed under achievement of outputs) or any level above the outcome level (which would be too far beyond the project's accountability[35]).

(b) Assessment of the **likelihood of impact.** Impact in UNEP is defined as intended and unintended long term changes in environmental benefits and human living conditions resulting directly or indirectly from UNEP interventions. Often, impact takes more than the lifetime of a project to occur, and depends on the presence of several external conditions over which the project has limited or no control. Besides, projects seldom dispose of accurate baseline information and rarely monitor progress at the impact level during their lifetime. Reliable information on a counterfactual (a comparable situation without the project) at the time of design and at the time of evaluation is usually missing as well. For these reasons, it is often not possible to measure actual impact of a project, but only to estimate the likelihood or potential for impact using a theoretical approach based on the intervention's TOC. In UNEP, this approach is called the "Likelihood of Impact Assessment (LIA)". The consultant will go through the following steps:

i) **Assessment of the internal logic of the project.** By comparing the TOC-E and the RTOC-E, the evaluators will verify whether project outputs are logically connected (from cause-to-effect) to intended outcomes, and whether intended outcomes are logically connected to expected impact. They will check whether all essential outputs and outcomes have been taken into account in project design, and whether all necessary drivers and critical assumptions have been adequately considered. This is explained in more detail under the assessment of preparation and readiness (see paragraph 52 below). It is also important here to determine the relative importance of the different causal pathways within the TOC, as this might require the evaluators to allocate more weight to some changes along the results chains compared to others.

ii) **Assessment of effectiveness**. The consultant will assess the extent to which outcomes (as per the RTOC-E) have been achieved. This is described in more detail under the assessment of **achievement of outcomes** (see paragraph 34(a) above).

[33] According to current development literature (e.g. UNDP) capacity exists at the individual level (individual knowledge and skills), institutional level (policies, organizational structures, and effective methods of management), and the societal level (responsive and accountable management and governance).

[34] Refer to table 2 above

[35] Intermediate states of an intervention are expected to result from its outcomes, with the support of certain drivers and assumptions. They are usually changes in capacity at the societal level or changes in individual, group or organizational *behaviour* resulting from the application of capacities acquired at the individual and institutional level. Because achievement of intermediate states depends a lot on the presence of favourable external conditions, an intervention cannot be held accountable to the same extent for the achievement of intermediate states as it would be held accountable for the achievement of its outputs and outcomes.

iii) **Verification of drivers and assumptions**. The evaluators will review the actual presence of the necessary drivers and validity of assumptions presented in the RTOC-E and assess whether the project has made all possible efforts to ensure the presence of drivers, and made the necessary adjustments (adaptive management) in case certain critical assumptions proved to be invalid.

iv) **Progress on intermediate states and early sign of impact**. The evaluators will actively search for evidence of changes happening at the intermediate state level and possible early indications that impact is happening at a smaller scale (e.g. within the confines of a project demonstration site). These early signs can strengthen the confidence of the evaluators that the project's TOC-E actually works.

v) **Assessment of the likelihood of impact.** Based on the previous steps, the evaluation consultant will be able to conclude how likely it is that the project is contributing or will contribute to impact. If the internal logic of the project is strong, outcomes have been achieved, all drivers and assumptions are in place, and progress on intermediate state and possibly impact at a smaller scale have been demonstrated, it is highly likely that the intervention will contribute to impact. On the other hand, if there are flaws in the internal logic of the project, some key outcomes have not been achieved, certain drivers or assumptions are not in place, or there is very little evidence of any progress on intermediate states and impact at small scales, the likelihood that the intervention will contribute to impact will be much lower.

vi) The evaluator will derive a **rating for the likelihood of impact** on a six-point scale (from 1=highly unlikely to 6=highly likely) by rating the elements i) to iii) above on a 6-point scale (from 1=very low/weak to 6=very high/strong). The rating for likelihood of impact would then be the lowest rating given to these elements, but possibly adding one bonus point in case there is solid evidence of progress on intermediate states or impact (element d) above). For instance, a project with a robust ToC at evaluation (rating of 6) with satisfactory effectiveness (rating of 5) and presence of most but not all drivers and assumptions (rating of 4), that shows some clear progress on intermediate states at the scale of its demonstrations sites, would be rated "likely" to achieve impact (4+1=5). In contrast, a project with serious logic flaws in the TOC-E (rating of 2), but very high effectiveness (rating of 6) and presence of the essential drivers and assumptions (rating of 5) and no signs of progress on intermediate states or impact (no bonus point) would be rated "unlikely" to achieve impact (2).

vii) The evaluation will also consider the likelihood that the intervention may lead to unintended negative effects (project documentation relating to Environmental, Social and Economic. Safeguards)

(c) Evaluation of the **achievement of the formal project overall objective, overall purpose, goals and component outcomes** using the project's own results statements as presented in the Project Document[36]. This sub-section will refer back where applicable to the preceding sub-sections (a) and (b) to avoid repetition in the report. To measure achievement, the evaluation will use as much as appropriate the indicators for achievement proposed in the Logical Framework (Logframe) of the project, adding other relevant indicators as appropriate. Briefly explain what factors affected the project's success in achieving its objectives, cross-referencing as needed to more detailed explanations provided under Section F. Most commonly, the overall objective is a higher level result to which the project is intended to contribute. The section will describe the actual or likely **contribution** of the project to the objective.

[36] Or any subsequent **formally approved** revision of the project document or logical framework.

(d) The evaluation should, where possible, disaggregate outcomes and impacts for the key project stakeholders. It should also assess the extent to which HR and GE were integrated in the Theory of Change and results framework of the intervention and to what degree participating institutions/organizations changed their policies or practices thereby leading to the fulfilment of HR and GE principles (e.g. new services, greater responsiveness, resource re-allocation, etc.)

### *SUSTAINABILITY AND REPLICATION*

28. Sustainability is understood as the probability of continued long-term project-derived results and impacts after the external project funding and assistance ends. The evaluation will identify and assess the key conditions or factors that are likely to undermine or contribute to the persistence of benefits. Some of these factors might be direct results of the project while others will include contextual circumstances or developments that are not under control of the project but that may condition the sustainability of benefits. The evaluation should ascertain to what extent follow-up work has been initiated and how project results will be sustained and enhanced over time.

29. The consultant can use the ToC at evaluation (TOC-E) and the reconstructed ToC at evaluation (RTOC-E) to see whether sustainability has been built into the impact pathways and whether the necessary drivers and assumptions (external factors and conditions) affecting sustainability have been adequately considered in the project's intervention logic. The evaluator should assess how likely the sustainability of direct outcomes (derived from the RTOC-E) is, and what the relative importance is of the direct outcomes to sustain higher level changes. Indeed, as outcomes relate most often to individual and institutional capacity building, they are often by themselves expected to ensure sustainability. For instance, a set of new regulations could be at the basis of a lasting change in how a natural resource is being managed. In addition to looking at the direct outcomes, the consultant will further assess sustainability of changes at intermediate state and impact levels by verifying the presence of drivers and validity of assumptions (derived from the RTOC-E) that affect sustainability of higher level results, considering their relative importance. Many drivers and assumptions required for progressing along the causal pathways from outputs to impact are also required for sustaining positive changes. Those external factors affecting sustainability are categorized in socio-political factors, financial factors, institutional factors and environmental factors:

(a) *Socio-political sustainability*. Are there any social or political factors that may influence positively or negatively the sustenance of project results and progress towards impacts? Is the level of ownership by the main stakeholders sufficient to allow for the project results to be sustained? Are there sufficient government and other key stakeholder awareness, interests, commitment and incentives to [add as relevant]? Did the project conduct 'succession planning' and implement this during the life of the project? Was capacity building conducted for key stakeholders? Did the intervention activities aim to promote (and did they promote) positive sustainable changes in attitudes, behaviours and power relations between the different stakeholders? To what extent has the integration of HR and GE led to an increase in the likelihood of sustainability of project results?

(b) *Financial resources.* To what extent are the continuation of project results and the eventual impact of the project dependent on financial resources? What is the likelihood that adequate financial resources[37] will be or will become available to use capacities built by the project? Are there any financial risks that may jeopardize sustenance of project results and onward progress towards impact?

[37] Those resources can be from multiple sources, such as the national budget, public and private sectors, development assistance etc.

(c) *Institutional framework.* To what extent is the sustenance of the results and onward progress towards impact dependent on issues relating to institutional frameworks and governance? How robust are the institutional achievements such as governance structures and processes, policies, sub-regional agreements, legal and accountability frameworks etc. required to sustaining project results and to lead those to impact on human behaviour and environmental resources, goods or services?
(d) *Environmental sustainability.* Are there any environmental factors, positive or negative, that can influence the future flow of project benefits? Are there any project outputs or higher level results that are likely to affect the environment, which, in turn, might affect sustainability of project benefits? Are there any foreseeable negative environmental impacts that may occur as the project results are being up-scaled?

30. **Catalytic role, replication and up-scaling**. The *catalytic role* of UNEP interventions is embodied in their approach of supporting the creation of an enabling environment and of investing in pilot activities which are innovative and showing how new approaches can work. UNEP also aims to support activities that upscale new approaches to a national, regional or global level, with a view to achieve sustainable global environmental benefits. The evaluation will assess the catalytic role played by this project, namely to what extent the project has:

(a) *catalyzed behavioural changes* in terms of use and application, by the relevant stakeholders, of capacities developed;
(b) provided *incentives* (social, economic, market based, competencies etc.) to contribute to catalysing changes in stakeholder behaviour;
(c) contributed to *institutional changes*, for instance institutional uptake of project-demonstrated technologies, practices or management approaches;
(d) contributed to *policy changes* (on paper and in implementation of policy);
(e) contributed to sustained follow-on financing (*catalytic financing*) from Governments, private sector, donors etc.;
(f) created opportunities for particular individuals or institutions ("*champions*") to catalyse change (without which the project would not have achieved all of its results).

31. *Replication* is defined as the repetition of project approaches or application of project lessons in different geographic locations, while *up-scaling* is defined as the repetition of project approaches or application of project lessons in the same area, but on a much larger scale. Both replication and up-scaling should be undertaken by other actors and be funded by other sources than the project itself.

32. ToC analysis can help with the assessment of replication and up-scaling potential of an intervention in a similar way it can help with the assessment of sustainability, except that here, the evaluator should focus on those direct outcomes, drivers and assumptions that are most necessary for replication and up-scaling of project results. The evaluation consultant can thus use the TOC-E and the RTOC-E to see whether replication and up-scaling have been built into the causal pathways and whether the necessary drivers and assumptions (external factors and conditions) promoting replication and up-scaling have been adequately considered in the project's intervention logic. To assess the likelihood of replication and up-scaling, the evaluators will assess the relative importance of direct outcomes, drivers and assumptions (derived from the RTOC-E) for enabling replication and up-scaling, and verify to what extent the most influential ones have been achieved or are present. The reliability of this assessment can be enhanced by looking for early evidence of replication or up-scaling during the project lifetime.

### *EFFICIENCY*

33. The evaluation will assess the cost-effectiveness and timeliness of project execution. It will describe any cost- or time-saving measures put in place in attempting to bring the project as far as

possible in achieving its results within its (severely constrained) secured budget and (extended) time. It will also analyse how delays, if any, have affected project execution, costs and effectiveness. Wherever possible, costs and time over results ratios of the project will be compared with that of other similar interventions. The evaluation will also assess the extent to which HR and GE were allocated specific and adequate budget in relation to the results achieved.

34. The evaluation will give special attention to efforts by the project teams to make use of/build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. to increase project efficiency. For instance, GEF/UNDP National Capacity Self-Assessment exercise, FAO supervised Technical Cooperation (TCP) project "Strengthening capacity for climate change adaptation in the agricultural sector", and the UNDP-AAP Project among other projects.

### *FACTORS AND PROCESSES AFFECTING PROJECT PERFORMANCE*

35. **Preparation and readiness**. This criterion focusses on the quality of project design and preparation. Were project stakeholders[38] adequately identified and were they sufficiently involved in project development and ground truthing e.g. of proposed timeframe and budget? Were the project's objectives and components clear, practicable and feasible within its timeframe? Are potentially negative environmental, economic and social impacts of projects identified? Were the capacities of executing agencies properly considered when the project was designed? Was the project document clear and realistic to enable effective and efficient implementation? Were the partnership arrangements properly identified and the roles and responsibilities negotiated prior to project implementation? Were counterpart resources (funding, staff, and facilities) and enabling legislation assured? Were adequate project management arrangements in place? Were lessons from other relevant projects properly incorporated in the project design? What factors influenced the quality-at-entry of the project design, choice of partners, allocation of financial resources etc.? Were any design weaknesses mentioned in the Project Review Committee minutes at the time of project approval adequately addressed?

36. The ToC of a project can be used to assess several aspects of project design, and, as a result, for assessing how well stakeholders were likely involved during project design processes. The UNEP Programme Manual recommends that all projects are designed on the basis of a thorough situation analysis with the development of a problem tree. This problem tree should then be used by the designers to develop the ToC of the project, by inverting problems into positive changes and conditions, and determining which changes and conditions the project will focus on. The necessary changes and conditions that are not part of the project's focus, should then be considered as external factors affecting impact (either drivers or assumptions).

37. The evaluators can assess the quality of the project's ToC by comparing the ToC at design (TOC-D) with the reconstructed ToC at design (RTOC-D) and determine, among other things, whether project outputs are logically connected (from cause-to-effect) to intended outcomes, and whether intended outcomes are logically connected to expected impact. They will check whether all essential outputs and outcomes have been taken into account in project design, and whether all necessary drivers and critical assumptions have been adequately considered. An important aspect here is to assess whether the project's focus is appropriate vis-à-vis: i) UNEP's mandate, programme of work and comparative advantages; ii) government and other stakeholder priorities; iii) what causal pathways are expected to most strongly contribute to impact; iv) resources available (including time); and v) what is being addressed by other actors (to find complementarities and synergies, and avoid duplication). Also, the evaluators should verify whether appropriate strategies have been built into project design to promote the drivers and manage the risks of possibly invalid assumptions. As noted above, drivers and

[38] Stakeholders are the individuals, groups, institutions, or other bodies that have an interest or 'stake' in the outcome of the project. The term also applies to those potentially adversely affected by the project.

assumptions cannot only affect the likelihood of impact, but may also play a major role in sustainability and replication and up-scaling.

38. The evaluators can also use the RTOC-D to assess the quality of the stakeholder analysis in the Project Document, by verifying whether key stakeholders have been properly identified. With the help of the RTOC-D, they can also assess whether sufficient analysis is provided on how different stakeholders can affect or be affected by project results; the nature of relationships that exist among stakeholders; and how they should be incorporated into project design (as partners, beneficiaries, champions, victims, resistors etc.). On the basis of the assessment of the project focus and the stakeholder analysis, the evaluation consultant could also draw some conclusions on how well stakeholders were likely involved during project design.

39. **Project implementation and management**. This includes an analysis of implementation approaches used by the project, its management framework, the project's adaptation to changing conditions and responses to changing risks including safeguard issues (adaptive management), the performance of the implementation arrangements and partnerships, relevance of changes in project design, and overall performance of project management. The evaluation will:

(g) Ascertain to what extent the project implementation mechanisms outlined in the project document have been followed and were effective in delivering project milestones, outputs and outcomes. Were pertinent adaptations made to the approaches originally proposed?
(h) Evaluate the effectiveness and efficiency of project management and how well the management was able to adapt to changes during the life of the project.
(i) Assess the role and performance of the teams and working groups established and the project execution arrangements at all levels.
(j) Assess the extent to which project management responded to direction and guidance provided by the UNEP Task Manager and the project steering committee (PSC).
(k) Identify operational and political / institutional problems and constraints that influenced the effective implementation of the project, and how the project tried to overcome these problems.

40. The reconstructed ToC at design and reconstructed ToC at evaluation can help understand the exact role of the project management team in delivering the project outputs and pushing change along the different causal pathways. The evaluation consultant can further assess whether the project team has put sufficient effort in promoting the drivers presented in the reconstructed ToC at design and evaluation. Also, a comparison of the original ToC at design, the original ToC at evaluation, and the reconstructed ToC at evaluation can help assess adaptive management by the project to respond to a changing context and react to invalid assumptions.

41. **Stakeholder participation, cooperation and partnerships.** The Evaluation will assess the effectiveness of mechanisms for information sharing and cooperation with other UNEP projects and programmes, external stakeholders and partners. The term stakeholder should be considered in the broadest sense, encompassing both project partners and target users (such as local community members, community Councils and Council members, participating Ministries among other project beneficiaries of project products. The TOC and stakeholder analysis should assist the evaluators in identifying the key stakeholders and their respective roles, capabilities and motivations in each step of the causal pathways from activities to achievement of outputs, outcomes and intermediate states towards impact. The assessment will look at three related and often overlapping processes: (1) information dissemination to and between stakeholders, (2) consultation with and between stakeholders, and (3) active engagement of stakeholders in project decision making and activities. The evaluation will specifically assess:

(a) the approach(es) and mechanisms used to identify and engage stakeholders (within and outside UNEP) in project design and at critical stages of project implementation. What were the strengths and weaknesses of these approaches with respect to the project's objectives and the stakeholders' motivations and capacities?
(b) How was the overall collaboration between different functional units of UNEP involved in the project? What coordination mechanisms were in place? Were the incentives for internal collaboration in UNEP adequate?
(c) Was the level of involvement of the Regional, Liaison and Out-posted Offices in project design, planning, decision-making and implementation of activities appropriate?
(d) Has the project made full use of opportunities for collaboration with other projects and programmes including opportunities not mentioned in the Project Document[39]? Have complementarities been sought, synergies been optimized and duplications avoided?
(e) What was the achieved degree and effectiveness of collaboration and interactions between the various project partners and stakeholders during design and implementation of the project? This should be disaggregated for the main stakeholder groups identified in the inception report.
(f) To what extent has the project been able to take up opportunities for joint activities, pooling of resources and mutual learning with other organizations and networks? In particular, how useful are partnership mechanisms and initiatives to build stronger coherence and collaboration between participating organisations?
(g) How did the relationship between the project and the collaborating partners (institutions and individual experts) develop? Which benefits stemmed from their involvement for project performance, for UNEP and for the stakeholders and partners themselves? Do the results of the project (strategic programmes and plans, monitoring and management systems, sub-regional agreements etc.) promote participation of stakeholders, including users, in environmental decision making?

42. The evaluation consultant can refer to the ToC at evaluation to verify whether it includes an approach for sharing information and cooperation with partners, national/local project stakeholders and other UNEP units, projects and programmes. Also, the reconstructed ToC at evaluation, stakeholder analysis and partner analysis should assist the evaluator in identifying the key stakeholders and their respective roles, capabilities and motivations in each step of the causal pathways from activities to achievement of outputs, outcomes and intermediate states towards impact, and should help to answer many of the questions asked above.

43. **Communication and public awareness**. The evaluation will assess the effectiveness of any public awareness activities that were undertaken during the course of implementation of the project to communicate the project's objective, progress, outcomes and lessons. This should be disaggregated for the main stakeholder groups identified in the inception report. Did the project identify and make us of existing communication channels and networks used by key stakeholders? Did the project provide feedback channels e.g. the website[40]?

44. **Country ownership and driven-ness.** The evaluation will assess the degree and effectiveness of involvement of government / public sector agencies and partners in the project, in particular those involved in project execution and those participating in the project Steering Committee (PSC):

(a) To what extent have Governments assumed responsibility for the project and provided adequate support to project execution, including the degree of cooperation received from the various public institutions involved in the project?

[39] If the ProDoc mentions any opportunities for collaboration with other projects and programmes, present these here in the footnote.
[40] http://www.lesmet.org.ls/action/improvement-early-warning-system-reduce-impacts-climate-change-and-hazards

(b) How and how well did the project stimulate country ownership of project outputs and outcomes?
(c) Has the project been able to advance/influence/support Lesotho's National Adaptation Plan process which was started during the project?

45. **Financial planning and management**. Evaluation of financial planning requires assessment of the quality and effectiveness of financial planning and control of financial resources throughout the project's lifetime. The assessment will look at actual project costs by activities compared to budget (variances), financial management (including disbursement issues), and co-financing. The evaluation will:

(a) Verify the application of proper standards (clarity, transparency, audit etc.) and timeliness of financial planning, management and reporting to ensure that sufficient and timely financial resources were available to the project and its partners;
(b) Assess other administrative processes such as recruitment of staff, procurement of goods and services (including consultants), preparation and negotiation of cooperation agreements etc. to the extent that these might have influenced project performance;
(c) Present the extent to which co-financing has materialized as expected at project approval (see Table 1). Report country co-financing to the project overall, and to support project activities at the national level in particular. The evaluation will provide a breakdown of final actual costs and co-financing for the different project components (see tables in Annex 4).
(d) Describe the resources the project has leveraged since inception and indicate how these resources are contributing to the project's ultimate objective. Leveraged resources are additional resources—beyond those committed to the project itself at the time of approval—that are mobilized later as a direct result of the project. Leveraged resources can be financial or in-kind and they may be from other donors, NGO's, foundations, governments, communities or the private sector.

46. Analyse the effects on project performance of any irregularities in procurement, use of financial resources and human resource management, and the measures taken UNEP to prevent such irregularities in the future. Determine whether the measures taken were adequate.

47. **Supervision, guidance and technical backstopping.** The purpose of supervision is to verify the quality and timeliness of project execution in terms of finances, administration and achievement of outputs and outcomes, in order to identify and recommend ways to deal with problems which arise during project execution. Such problems may be related to project management but may also involve technical/institutional substantive issues in which UNEP has a major contribution to make.

48. The evaluators should assess the effectiveness of supervision, guidance and technical support provided by the different supervising/supporting bodies including:

(a) The adequacy of project supervision plans, inputs and processes;
(b) The realism and candour of project reporting and the emphasis given to outcome monitoring (results-based project management);
(c) How well did the different guidance and backstopping bodies play their role and how well did the guidance and backstopping mechanisms work? What were the strengths in guidance and backstopping and what were the limiting factors?

49. **Monitoring and evaluation**. The evaluation will include an assessment of the quality, application and effectiveness of project monitoring and evaluation plans and tools, including an assessment of risk management based on the assumptions and risks identified in the project document. The evaluation will assess how information generated by the M&E system during project implementation was used to adapt

and improve project execution, achievement of outcomes and ensuring sustainability. M&E is assessed on two levels:

(a) *M&E Design*. The evaluators should use the following questions to help assess the M&E design aspects:

- Arrangements for monitoring: Did the project have a sound M&E plan to monitor results and track progress towards achieving project objectives? Have the responsibilities for M&E activities been clearly defined? Were the data sources and data collection instruments appropriate? Was the time frame for various M&E activities specified? Was the frequency of various monitoring activities specified and adequate?
- How well was the project logical framework (original and possible updates) designed as a planning and monitoring instrument?
- SMART-ness of indicators: Are there specific indicators in the logframe for each of the project objectives? Are the indicators measurable, attainable (realistic) and relevant to the objectives? Are the indicators time-bound?
- Adequacy of baseline information: To what extent has baseline information on performance indicators been collected and presented in a clear manner? Was the methodology for the baseline data collection explicit and reliable? For instance, was there adequate baseline information on pre-existing accessible information on global and regional environmental status and trends, and on the costs and benefits of different policy options for the different target audiences? Was there sufficient information about the assessment capacity of collaborating institutions and experts etc. to determine their training and technical support needs?
- To what extent did the project engage key stakeholders in the design and implementation of monitoring? Which stakeholders (from groups identified in the inception report) were involved? If any stakeholders were excluded, what was the reason for this? Was sufficient information collected on specific indicators to measure progress on HR and GE (including sex-disaggregated data)?
- Did the project appropriately plan to monitor risks associated with Environmental Economic and Social Safeguards?
- Arrangements for evaluation: Have specific targets been specified for project outputs? Has the desired level of achievement been specified for all indicators of objectives and outcomes? Were there adequate provisions in the legal instruments binding project partners to fully collaborate in evaluations?
- Budgeting and funding for M&E activities: Determine whether support for M&E was budgeted adequately and was funded in a timely fashion during implementation.

(b) *M&E Plan Implementation*. The evaluation will verify that:

- the M&E system was operational and facilitated timely tracking of results and progress towards projects objectives throughout the project implementation period;
- PIR reports were prepared (the realism of the Task Manager's assessments will be reviewed)
- Half-yearly Progress & Financial Reports were complete and accurate;
- Risk monitoring (including safeguard issues) was regularly documented
- the information provided by the M&E system was used during the project to improve project performance and to adapt to changing needs.

50. The ToC of the project can help with assessing the quality of project monitoring and evaluation plans and tools, and how information gathered by the M&E system was used to adapt and improve project

execution, achievement of outcomes and ensuring sustainability, replication and up-scaling. More specifically, the assessment of the ToC at design (TOC-D) and at evaluation (TOC-E), based on the project LogFrame at design and evaluation, respectively, can help with the assessment of the quality of the LogFrame (original and possible updates) as a planning and monitoring instrument. The quality of the TOC-D can also be very telling about the adequacy of baseline information, for instance on the problem context, lessons learned from previous experience on what works and doesn't work, the capacity of partners etc.

51. The evaluators can compare the TOC-E and the TOC-D to verify whether monitoring and mid-term evaluation findings have been used to bring possible adjustments to the project focus, increase attention on key drivers and put in place measures to deal with possible false assumptions, in other words whether the information provided by the M&E system was used during the project to improve project performance and to adapt to changing needs.

### *THE CONSULTANT*

52. This evaluation will be conducted by a consultant. Details about the specific roles and responsibilities are presented in Annex 1 of these TORs. The consultant should have at least 15 years of technical / evaluation experience, including of evaluation large, regional or global programmes and using a Theory of Change approach; and a broad understanding of large-scale, consultative assessment processes and factors influencing use of assessments and/or scientific research for decision-making.

53. The consultant will undertake data collection and analysis, and the preparation of the main report for the evaluation and ensure that all evaluation criteria and questions are adequately covered.

54. By undersigning the service contract with UNEP/UNON, the consultant certifies that (s)he has not been associated with the design and implementation of the project in any way which may jeopardize his/her independence and impartiality towards project achievements and project partner performance. In addition, (s)he will not have any future interests (within six months after completion of the contract) with the project's executing or implementing units.

### *EVALUATION DELIVERABLES AND REVIEW PROCEDURES*

55. The evaluation consultant will prepare an **inception report** (see Annex 2(a) of TORs for Inception Report outline) containing a thorough review of the project context, project design quality, a draft reconstructed Theory of Change of the project, the evaluation framework and a tentative evaluation schedule.

56. It is expected that a large portion of the desk review will be conducted during the inception phase. It will be important to acquire a good understanding of the project context, design and process at this stage. The review of design quality will cover the following aspects (see Annex 7 for the detailed project design assessment matrix):

- Strategic relevance of the project
- Preparation and readiness;
- Financial planning;
- M&E design;
- Complementarity with UNEP strategies and programmes;
- Sustainability considerations and measures planned to promote replication and up-scaling.

57. The inception report will present a draft, desk-based reconstructed Theory of Change of the project. It is vital to reconstruct the ToC *before* most of the data collection (review of progress reports, in-depth interviews, surveys etc.) is done, because the ToC will define which direct outcomes, drivers and assumptions of the project need to be assessed and measured – based on which indicators – to allow

adequate data collection for the evaluation of project effectiveness, likelihood of impact and sustainability.

58. The inception report will also include a stakeholder analysis identifying key stakeholders, networks and channels of communication. This information should be gathered from the Project document and discussion with the project team. See annex 2 for template.

59. The evaluation framework will present in further detail the overall evaluation approach. It will specify for each evaluation question under the various criteria what the respective indicators and data sources will be. The evaluation framework should summarize the information available from project documentation against each of the main evaluation parameters. Any gaps in information should be identified and methods for additional data collection, verification and analysis should be specified. Evaluations/reviews of other large assessments can provide ideas about the most appropriate evaluation methods to be used.

60. Effective communication strategies help stakeholders understand the results and use the information for organisational learning and improvement. While the evaluation is expected to result in a comprehensive document, content is not always best shared in a long and detailed report; this is best presented in a synthesised form using any of a variety of creative and innovative methods. The evaluator is encouraged to make use of multimedia formats in the gathering of information e.g. video, photos, sound recordings. Together with the full report, the evaluator will be expected to produce a 2-page summary of key findings and lessons. A template for this has been provided in Annex 10.

61. The inception report will also present a tentative schedule for the overall evaluation process, including a draft programme for the country visit and tentative list of people/institutions to be interviewed.

62. The inception report will be submitted for review and approval by the Evaluation Office before the any further data collection and analysis is undertaken.

63. When data collection and analysis has almost been completed, the evaluation consultant will prepare a short **note on preliminary findings and recommendations** for discussion with the project team. The purpose of the note is to allow the consultant to receive guidance on the relevance and validity of the main findings emerging from the evaluation.

64. **The main evaluation report** should be brief (no longer than 40 pages – excluding the executive summary and annexes), to the point and written in plain English. The report will follow the annotated Table of Contents outlined in Annex 2. It must explain the purpose of the evaluation, exactly what was evaluated and the methods used (with their limitations). The report will present evidence-based and balanced findings, consequent conclusions, lessons and recommendations, which will be cross-referenced to each other. The report should be presented in a way that makes the information accessible and comprehensible. Any dissident views in response to evaluation findings will be appended in footnote or annex as appropriate. To avoid repetitions in the report, the authors will use numbered paragraphs and make cross-references where possible.

65. **Review of the draft evaluation report**. The evaluation consultant will submit a zero draft report to the UNEP EO and revise the draft following the comments and suggestions made by the EO. Once a draft of adequate quality has been accepted, the EO will share this first draft report with the Task Manager, who will alert the EO in case the report would contain any blatant factual errors. The Evaluation Office will then forward the first draft report to the other project stakeholders, in particular the Task Manager and project team for their review and comments. Stakeholders may provide feedback on any errors of fact and may highlight the significance of such errors in any conclusions. It is also very important that stakeholders provide feedback on the proposed recommendations and lessons. Comments would be expected within two weeks after the draft report has been shared. Any comments or responses to the

draft report will be sent to the UNEP EO for collation. The EO will provide the comments to the evaluation consultant for consideration in preparing the final draft report, along with its own views.

66. The evaluation consultant will submit the final draft report no later than 2 weeks after reception of stakeholder comments. (S)He will prepare a **response to comments**, listing those comments not or only partially accepted by her/him that could therefore not or only partially be accommodated in the final report. (S)He will explain why those comments have not or only partially been accepted, providing evidence as required. This response to comments will be shared by the EO with the interested stakeholders to ensure full transparency.

67. **Submission of the final evaluation report.** The final report shall be submitted by Email to the Head of the Evaluation Office. The Evaluation Office will finalize the report and share it with the interested Divisions and Sub-programme Coordinators in UNEP. The final evaluation report will be published on the UNEP Evaluation Office web-site www.unep.org/eou.

68. As per usual practice, the UNEP EO will prepare a **quality assessment** of the zero draft and final draft report, which is a tool for providing structured feedback to the evaluation consultant. The quality of the report will be assessed and rated against the criteria specified in Annex 3.

69. The UNEP Evaluation Office will assess the ratings in the final evaluation report based on a careful review of the evidence collated by the evaluation consultant and the internal consistency of the report. Where there are differences of opinion between the evaluator and UNEP Evaluation Office on project ratings, both viewpoints will be clearly presented in the final report. The UNEP Evaluation Office ratings will be considered the final ratings for the project.

70. At the end of the evaluation process, the Evaluation Office will prepare a Recommendations Implementation Plan in the format of a table to be completed and updated at regular intervals by the Task Manager. After reception of the Recommendations Implementation Plan, the Task Manager is expected to complete it and return it to the EO within one month. (S)he is expected to update the plan every six month until the end of the tracking period. As this is a Terminal Evaluation, the tracking period for implementation of recommendations will be 18 months, unless it is agreed to make this period shorter or longer as required for realistic implementation of all evaluation recommendations. Tracking points will be every six months after completion of the implementation plan.

### *LOGISTICAL ARRANGEMENTS*

71. This Terminal Evaluation will be undertaken by an independent evaluation consultant contracted by the UNEP Evaluation Office. The consultant will work under the overall responsibility of the UNEP Evaluation Office and will consult with the EO on any procedural and methodological matters related to the evaluation. It is, however, the consultant's individual responsibility to arrange for their travel, visa, obtain documentary evidence, plan meetings with stakeholders, organize online surveys, and any other logistical matters related to the assignment. The UNEP Task Manager and project team will, where possible, provide logistical support (introductions, meetings etc.) allowing the consultant to conduct the evaluation as efficiently and independently as possible.

### *SCHEDULE OF THE EVALUATION*

72. Table 7 below presents the tentative schedule for the evaluation.

**Table 7: Tentative schedule for the evaluation**

| Milestone | Deadline |
|---|---|
| Inception Phase | November 2017 |
| Inception Report | 15st November 2017 |

| | |
|---|---|
| Evaluation Mission to Lesotho – 15 days<br>• Visit UNEP FMO & Eval mgr Meetings in Nairobi<br>• Visit stakeholders and attend SRC in Maseru<br>• Visit to the six pilot sites across 3 districts: Thabo Tseka, Mafateg and Quthing | 27th Nov 2017 to 9th December 2017<br>27th November & 8th December 2017<br>29th November & 5th December 2017<br>30th November to 4th December 2017 |
| Telephone interviews, surveys etc. | 11-15 December 2017 |
| Note on preliminary findings and recommendations | 8th December 2017 |
| Draft Report shared with UNEP Task Manager | 15 December 2017 (till 10th Jan 2018) |
| Draft Report shared with project team | 15th Jan 2018 |
| Draft Report shared with stakeholders | 17th Jan 2018 |
| Final Report | 25th Jan 2018 |

## 4.2 ANNEX 2: LIST OF STAKEHOLDERS CONSULTED DURING THE TERMINAL EVALUATION

**List of Participants consulted during the TE**

### A. Meeting with Project Partner Ministries Responsible for Component Three

**29th November 2017 (five men, four women)**

Table 1: Attendance at the Partner Ministries

| Name | Institution | Gender |
|---|---|---|
| Mrs Maleoa Mohloboli | Assistant Director – Research, Agricultural Research Centre, Ministry of Agriculture. | F |
| Mrs Maitumeleng Fokothi | Agricultural Research Centre – Horticulture | F |
| Mr. Kakole Likotsi | Agricultural Research Centre - Agronomy | M |
| Mamajalle Lefoka | Agricultural Research Centre - Livestock | M |
| Mothofeela Liphoto | Agricultural Research Centre – Engineering/irrigation | F |
| George Motlalepula | Agricultural Research Centre - Livestock | M |
| Regina Mating | Department of Range Management | F |
| Lithole Manosa | Department of Range Management | M |
| Mr Mokoena France | Principle Meteorologist and Head of Climate Change Unit, LMS | M |

**IEWS PSC Meeting Lehakoe Recreational and Cultural Centre for the Terminal Evaluation**

6th December 2017 (eight women, six men)

Table 2: Attendance List for the PSC Debriefing meeting

| NAMES | INSTITUTION | GENDER |
|---|---|---|
| 1. VN Muthusi | UN Environment | Evaluator |
| 2. Mosuoe Letma | LMS | M |
| 3. Kakole Likotsi | DAR | M |
| 4. MJ Mohlomi | NUL | M |
| 5. Mamokhomo Mabote | IEWS | F |
| 6. Rebonoang Tlali | MAFS-DOC | F |
| 7. Mabatlokoa Maloi | DMA | F |
| 8. Khothatso Maraisane | NCDC-MOET | M |
| 9. Lekhafola Motlomelo | Energy & Meteorology | M |
| 10. Mamajalle Lefoka | DAR | F |
| 11. Manchakha Mantsoe | DAR | F |
| 12. Mothofeela Liphoto | DAR | M |
| 13. Mabongani Adoro | Ministry of Forestry | F |
| 14. Maleoa Mohloboli | DAR | F |
| 15. Mabafokeng Mahahabisa | LMS | F |

The tables below show participants in the six villages for meetings held between 30th Nov and 4th Dec 2017. Total number attending was 256 comprising of 159 women (62%) and 97 men (38%). 43 (27%) of the women were under 35 years; while 29 (30%) of the men were also under 35. These data are synthesized in table three, below while table Four shows the actual list of attendees.

Table 3: Synthesis of the Attendance Lists for the Village Meetings

| | | |
|---|---|---|
| women | 159 | 62% |

| | | |
|---|---|---|
| Men | 97 | 38% |
| **Total** | 256 | |
| **Youth** | | |
| young women | 43 | 27% of women were below the age of 35 |
| Young men | 29 | 30% of men were below the age of 35 |
| **Youth total** | **72** | 28% of participants were below the age of 35 |

Table 4: List of Participants in the Six Villages

| **Name** | **Gender** | **Age** |
|---|---|---|
| **Ha-Rakhomo Village** | | |
| Makhotso Mosala | f | 77 |
| Makamohelo Mohlakaona | f | 76 |
| Notimes Qeku | f | 39 |
| Manapo Sello | f | 61 |
| Mavoile Thokoa | f | 60 |
| Matholang Khanyapa | f | 76 |
| Tselane Nyakhane | f | 64 |
| Rethabile Mokhahlane | f | 27 |
| Tsanelo Mokonenyame | f | 23 |
| Nophomolane Socaba | f | 29 |
| Matsaba Thokoa | f | 59 |
| Nthati Makhube | f | 29 |
| Mamosunyane moseunyane | f | 59 |
| Tsokulo Molikeng | m | 63 |
| Lebuajoane Mosala | m | 50 |
| Ntsoaki Thokoa | f | 54 |
| Malenka Thokoa | f | 56 |
| Masebaka Thokoa | f | 64 |
| Nozaenele Sinyonto | f | 64 |
| Nowinele Velem | f | 68 |
| Mateboho Moru | f | 53 |
| Makaliseng Nyakhane | f | 47 |
| Noosi Noosi | m | 42 |
| Thabang Thokoa | m | 47 |
| Sello Mokhahlane | m | 32 |
| Mosebi Noosi | m | 50 |
| Mohau Mokhalane | m | 57 |
| Makeketso Khobao | f | 60 |
| Mosehai Mohlakoana | m | 43 |
| Komanyane Mohlakaona | m | 67 |
| Malefane Moru | m | 67 |
| Lehlonolo Molikeng | m | 64 |
| Sefofane Makhube | m | 30 |
| Tselane Pulela | f | 57 |
| **Ha Damanyane village** | | |
| Mampolokeng Damane | f | 56 |
| Lineo Seetsi | f | 67 |
| Matabello Damane | f | 56 |
| Malehlohoro Damane | f | 54 |

| | | |
|---|---|---|
| Mantsajoa Monyatsi | f | 25 |
| Maitumeleng Hehloesa | f | 54 |
| Tseliso Qakatha | m | 69 |
| Mokebe Damani | m | 82 |
| Malorato Nthunya | f | 55 |
| Matieho Damane | f | 67 |
| Molekeng Masoabi | f | 60 |
| Nthabiseng Nkhelehle | f | 68 |
| Malebohang Mothata | f | 60 |
| Lebaka Maotoanyane | m | 36 |
| Relebohile Maotoanyane | m | 23 |
| **Ha Tokho village** | | |
| Mamolupo Makhetha | f | 62 |
| Maaleta Ramagoma | f | 52 |
| Mathabang Nqolsa | f | 59 |
| Tokho Ramagoma | m | 59 |
| Mareitumetse Ramagoma | f | 36 |
| Mahalieno Ramagoma | f | 54 |
| Matanki Makhetha | f | 24 |
| Maatang Makhetha | f | 22 |
| Maqenehelo Makhetha | f | 44 |
| Sello Ramagoma | m | 39 |
| Tefo Hoiti | m | 52 |
| Mathato Makhetha | f | 65 |
| Lerutla Makhetha | m | 30 |
| Teboho Ramagoma | m | 29 |
| Ntseko Maponya | m | 50 |
| Tsietsi Makhetha | m | 62 |
| Matlali Makhetha | m | 29 |
| Thato Makhetha | m | 46 |
| Qenehelo Makhetha | m | 28 |
| Makhaki Maponya | f | 40 |
| Maretselisitosoe Makhetha | f | 32 |
| Mathabo Makhetha | f | 27 |
| Tsebang Makhetha | m | 27 |
| Tankiso Ramatlohi | m | 33 |
| Maretsepile Ramagoma | f | 27 |
| Mamotsie Ramone | f | 47 |
| **Maputsoe Village** | | |
| Mokheseng Mohlopni | m | 37 |
| Makhabane Monyane | m | 24 |
| Sealemetse Sealemetse | m | 26 |
| Tlali Sealemetse | m | 24 |
| Moeketsi Monaheng | m | 25 |
| Moeketsi Letlola | m | 36 |
| Khojane Sealemetse | m | 49 |
| Monaleng Halekhethe | m | 41 |
| Seabata Thamae | m | 53 |
| Mohanoe Khonyane | m | 69 |
| Kabane Monaheng | m | 58 |
| Kali Mohlomi | m | 58 |

| | | |
|---|---|---|
| Kali Mohlomi | m | 65 |
| Takane Lethola | m | 40 |
| Moshe Manaheng | M | 34 |
| Mokoena Sealemetse | m | 46 |
| Remaketse Sealemetse | m | 46 |
| Moloko Lereko | m | 22 |
| Lebitso Monyane | m | 38 |
| Mahabe Mohlomi | M | 22 |
| Malejeone Letlola | f | 78 |
| Thabang Lebitso | m | 72 |
| Maitumeleng Letlola | f | 44 |
| Matsietsi Rubeng | f | 44 |
| Matlotliso Thamae | f | 36 |
| Maliepollo Sealemetse | F | 72 |
| Malisebo Sealemetse | f | 37 |
| Mapoloko Chale | f | 40 |
| Maneo Mohlomi | f | 60 |
| Mamokoena Sealemetse | f | 77 |
| Mankopane Labitso | f | 70 |
| Mamosa Monyane | f | 35 |
| Mammopa Monyane | f | 36 |
| Masaelemetse Sealemetse | f | 44 |
| Maboithatelo Sealemetse | f | 20 |
| Makhauhelo Letlola | f | 30 |
| Mathakaona Mohlomi | f | 30 |
| Malideo Monaheng | f | 54 |
| Tseliso Letlola | f | 30 |
| Poloko Chale | m | 25 |
| Motsamai Chale | m | 47 |
| Monthameng Matefe | f | 64 |
| Motlomelo Mohlomi | m | 31 |
| Tieho Molutsoane | m | 24 |
| **Ha Ntanyele village** | | |
| Marathabile Letsosa | f | 28 |
| Mathato Letsosa | f | 59 |
| Lehlohonolo Litsebe | m | 36 |
| Matankiso Koloko | f | 34 |
| Matankiso Letsosa | f | 44 |
| Mabokang Matamane | f | 31 |
| John Lekometsa | m | 59 |
| Moloantoa Letsosa | m | 47 |
| Mara Lekometsa | m | 53 |
| Lepolesa Rantene | m | 27 |
| Piso Lekometsa | m | 68 |
| Mahlomola Ranteme | m | 87 |
| Manyaklho Mapitsi | f | 30 |
| Maselloane Lekometsa | f | 34 |
| Makatiso Letsosa | f | 62 |
| Seapehi Letsosa | f | 32 |
| Lomakatso Pitso | f | 24 |
| Mantsane Motoai | f | 53 |

| | | |
|---|---|---|
| Matsepiso Ranteme | f | 42 |
| Maneo Letsosa | f | 50 |
| Mapoloko Koloko | f | 30 |
| Maphello Lekometsa | f | 49 |
| Montseng Letsosa | f | 42 |
| Mamotseoa Koloko | f | 28 |
| Mampolokeng Makoetsa | f | 49 |
| Mautata Motoai | f | 53 |
| Thabo Lekometsa | m | 70 |
| Lekomane Mosesi | m | 68 |
| Mathabo Letsosa | f | 68 |
| **Ha Lekhari Village** | | |
| Manthabiseng Pitso | f | 67 |
| Machobane Mahathe | m | 32 |
| Tsepo Ramoholi | m | 33 |
| Ohali Nthibane | m | 45 |
| Maphasane Setlaba | m | 46 |
| Moeketsi Moranyatsi | m | 50 |
| Tsokolo Rakhapu | m | 57 |
| Lefu Rakhapu | m | 58 |
| Rethabile Mokoena | m | 24 |
| Phiela Thesele | m | 25 |
| Malitsane Sekhantsa | m | 59 |
| Mateliso Marake | f | 32 |
| Matsepiso Nikelo | f | 57 |
| Mamosala Mosala | f | 56 |
| Maphakiso Marake | f | 47 |
| Mamoleboheng Pitso | f | 63 |
| Liamo Lenka | f | 53 |
| Moalosi Lekhari | m | 70 |
| Maria Nthibane | f | 65 |
| Mamofota Moshesha | f | 47 |
| Motanki Moshesha | f | 46 |
| Majalane Letsaba | f | 54 |
| Molerato Mohatle | f | 51 |
| Mamoliehi Setlama | f | 53 |
| Matsepo Thesele | f | 20 |
| Mamohlominyane Lekhari | f | 65 |
| Mankalimeng Mokoena | f | 62 |
| Mamosele Pitso | f | 37 |
| Matselanngoe Letsaba | f | 72 |
| Mapheello Setsaba | f | 72 |
| Malaki Setlaba | f | 57 |
| Marethobile Rakhapu | f | 47 |
| Malebohang Mokoena | f | 65 |
| Mamotlalepule Qhaoke | f | 55 |
| Mamokoean Mathibeli | f | 48 |
| Mapelaole Ranako | f | 63 |
| Makheliso Tsosi | f | 57 |
| Matseliso Pheello | f | 38 |
| Malibuseng Moahloli | f | 31 |

| | | |
|---|---|---|
| John Moshesha | m | 61 |
| Matelebohile Setlaba | f | 31 |
| Malipontso Rasonopo | f | 40 |
| Mamothibehi Khalala | f | 50 |
| Lefeko Lekhari | m | 73 |
| Malesa Mojake | f | 69 |
| Manyalaki Mojake | f | 70 |
| Mamoliehi Mojake | f | 49 |
| Mabohlokoa Moshesha | f | 23 |
| Malerato Morake | f | 26 |
| Kobhoso Moshesha | f | 20 |
| Malesenyeho Moshesha | f | 57 |
| Relebohile Moshesha | f | 22 |
| Mthoateng Mathibeli | f | 28 |
| Nkalimeng Mahlelebe | f | 33 |
| Tsepo Motapanyane | m | 31 |
| Molato Moshesha | m | 56 |
| Lekhari Lekahri | m | 46 |
| Makamohelo Moshesha | f | 53 |
| Mampokeng Moshesha | f | 54 |
| Maneo Mokoena | f | 74 |
| Marifeloe Maranyatsi | f | 25 |
| Malieketseng Moshesha | f | 49 |
| Tolofo Ramose | m | 30 |
| Molefi Shale | m | 68 |
| Motobeki Setlaba | f | 38 |
| Selloane Thamae | f | 30 |
| Mohule Moshesha | f | 33 |
| Manthati Moshesha | f | 42 |
| Tlokosi Ranoka | m | 85 |
| Tsolo Tjela | m | 48 |
| Letsatsi Moshesha | m | 34 |
| Lehlohonolo Phalatsi | m | 38 |
| Sechaba Ramoholi | m | 63 |
| Thabang Khojane | m | 64 |
| Mapeiso Ranoka | f | 41 |
| Matseliso Marake | f | 25 |
| Mathepe Lesaoana | f | 40 |
| Mampho Nkhabe | f | 31 |
| Marake Marake | m | 78 |
| Manthabeleng Tsosi | f | 34 |
| Mateboho Tsosi | f | 62 |
| Fusi Setlaba | m | 67 |
| Motsamai Tsosi | m | 66 |
| Mathibane Nthibane | f | 60 |
| Maphatsoe Pitso | m | 73 |
| Masebolelo Letale | f | 63 |
| Matiisetso Pitso | f | 68 |
| Manolo Moshesha | f | 54 |
| Mamosinoa Thejane | f | 73 |
| Mamafa Mojake | f | 42 |

| | | |
|---|---|---|
| Matsetsi Mojake | f | 65 |
| Malibhokanyo Moshesha | f | 60 |
| Maphokiso Nonyana | f | 59 |
| Masongo Raonopo | f | 29 |
| Mamofotaq Majake | m | 68 |
| Khoboso Moshesha | f | 85 |
| Malerato Moshesha | f | 23 |
| Mathapelo Nikelo | f | 52 |
| Maitumeleng Moshesha | f | 53 |
| Mamohlonoa Ramose | f | 74 |
| Manteboheleng Tsotsi | f | 32 |
| Moahloli Mokoena | m | 59 |
| Kebitsamang Nkhabe | m | 64 |
| Ramoholi Ramoholi | m | 52 |
| Mokhoetsi Moshesha | m | 32 |
| Paul Ramose | m | 23 |
| Ntai Thesele | m | 65 |
| Mathabo Ramoholi | f | 46 |

## 4.3 ANNEX 3: TERMINAL EVALUATION ITINERARY

Mission Itinerary 26th November 2017 to 9th December 2017.

| Dates | | Place |
|---|---|---|
| 26th November 2017 to 9th December 2017 | | |
| Sunday 26th November 2017 | Arrival in Maseru | Maseru |
| Monday 27th November 2017 | Maseru: Meetings with PMU (afternoon) | Maseru |
| Tuesday 28th November 2017 | Meeting with Implementing Departments - Agriculture | Maseru |
| Tuesday 28th November 2017 | Meeting with Implementing Departments - Forestry, Range (afternoon) | Maseru |
| Wednesday 29th November 2017 | Meeting with Implementing Departments - Lesotho Meteorological Services | Maseru |
| Wednesday 29th Nov 2017 | Maseru to Quthing travel (afternoon) | Maseru |
| Thursday 30th November 2017 | Quthing: Meetings with stakeholders | Maseru |
| Thursday 30th November 2017 | Quthing to Mafeteng travel (afternoon) | Depart Maseru at 5pm in the evening, arrive Quthing at 9PM. |
| Friday 1st December 2017 | Mafeteng to Thaba Tseka travel | Quting |
| Saturday 2nd December 2017 | Thaba Tseka district: Meetings with stakeholders (Ha-Tokho) | Depart Quthing at 5pm in the evening, arrive Mafeteng at 6PM. |
| Sunday 3rd December 2017 | Thaba Tseka to Mafeteng travel | Depart Mafeteng at 10 AM, arrive Thaba Tseka at 4PM. |
| Monday 4th December 2017 | Mafeteng: Meetings with stakeholders | Spent the second night in Thaba Tseka |
| Tuesday 5th December 2017 | Mafeteng to Maseru Travel | Depart Thaba Tseka at 10AM, arrive Mafeteng at 4PM. |
| Tuesday 5th December 2017 | Maseru: Debrief with PMU/ Director LMS (afternoon) | Maseru |
| Wednesday 6th December 2017 | Maseru: Meetings with PSC | Depart Mafeteng at 3PM, |
| Thursday 7th December 2017 | Maseru: Meetings with PSC | Maseru |
| Saturday 9th December 2017 | Departure from Maseru | Depart Maseru |

## 4.4 ANNEX 4: LETTERS OF APPROVAL FOR THE COST NEUTRAL EXTENSIONS

Amendment No-2
PCA/2011/027
LDL-2329-2724-4C21

**Project Title**: Improvement of Early Warning System to Reduce Impacts of Climate Change and Capacity Building to Integrate Climate Change into Development Plans

**Amendment No.2 to the PCA**
**Between**
**The United Nations Environment Programme (UNEP)**
**And**
**Ministry of Natural Resources, Lesotho Meteorological Services**

Pursuant to Clause 63 of the Project Cooperation Agreement (PCA/2011/027) signed on 14 September 2011 between UNEP and Ministry of Natural Resources, Lesotho Meteorological Services in support of the project titled, "Improvement of Early Warning System to Reduce Impacts of Climate Change and Capacity Building to Integrate Climate Change into Development Plans", the Parties hereto have agreed to amend the PCA.

The purpose of this amendment is to extend the duration of the agreement.

In view of the above, Clause 5 shall be amended to read as follows:

**Clause 5: Duration. This clause and the associated foot note is amended as follows**
This Agreement shall come into force upon signature by the Parties from the date of the latest signature, and shall remain in force until 31st December 2017[1] after the last obligation of the Parties lapse, unless terminated earlier pursuant to paragraphs 48 to 60 of this Agreement.

The total cost of the project to the GEF Trust Funds remains unchanged.

All other terms and conditions of the original PCA shall remain valid and unchanged. This amendment shall be appended to and be construed an integral part of the original PCA, signed between UNEP and Ministry of Natural Resources, Lesotho Meteorological Services on 14 September 2011.

Signed on behalf of UNEP

Mette L. Wilkie
Director
Division of Environmental Policy Implementation
United Nations Environment Programme

Date: 09.12.2016

Signed on behalf of Ministry of Natural Resources, Lesotho Meteorological Services

Mrs. Mabolokeng Mahahabisa
Director
Lesotho Meteorological Services

Date: 30/11/2016

**List of Annexes to PCA Amendment**

Appendix 2: Application for the Extension of the PCA

MINISTRY OF ENERGY AND METEOROLOGY
LESOTHO METEOROLOGICAL SERVICES
DEPARTMENT
2016 -11- 30
ADMINISTRATION
P.O. Box 14515 Maseru 100
Tel: 22317250 Fax:22325057

[1] The legal instrument remains in force, after the project technical completion date of 30 June 2017 to allow for receipt of all terminal reporting.

## 4.5 ANNEX 5: EVOLUTION OF PROJECT INDICATORS

| Revised indicators | High-level Prodoc indicators used for the TE |
|---|---|
| Number of fully equipped climate monitoring stations i.e. stations with a minimum of a functional (6): | Degree of functionality of the climate monitoring infrastructure and of climate analytical functions<br>Proportion (%) of villagers at pilot project sites using early warnings in decision-making. |
| Number of climate observers and station managers and programmers trained (10, 20, 30). | |
| Number of end users receiving climate information (dropped) | |
| Number of training workshops/ programmes on climate change modelling conducted for LMS and relevant sectoral staff. | |
| Proportion (%) of villagers at pilot project sites receiving early warnings through their preferred modes of communication (at least 4 bulletins per year and 10 people per site) | |
| Frequency and type of communication products developed and used to deliver early warnings to end users at pilot project sites. | |
| Number of Disaster Management and CCA awareness campaigns conducted at pilot project sites by Disaster Management Authority. | |
| **Component 2** | |
| Number of climate change models and vulnerability maps produced (6). | Degree of integration of climate change and adaptation in planning frameworks, with two targets:<br>i) By the end of the project, at least 2 sectoral policy documents will include adaptation options and opportunities.<br>ii) By the end of the project the country will have a comprehensive climate adaptation policy approved by the government with budget for implementation |
| Number of people trained (50) - dropped | |
| Number of training workshops/ programmes on climate change vulnerability and its economic impacts conducted for staff in key sectoral ministries and central planning authorities. | |
| Number of sectoral briefing notes and policy briefs on climate change adaptation produced, disseminated to policymakers and used in policy reviews (5). | |
| Number of coordination meetings of the Multi-sectoral Task Force on climate change and CCA policy making (3). | |
| Number of local and regional consultation forums on CC and CCA convened. | |
| Degree of integration of climate change into policies (at least 2 policies fully integrate CC – Agric, Land use)- dropped | |
| Existence of a national climate change adaptation policy and projected implementation budget. | |
| **Component 3** | |
| Degree of rehabilitation of productive ecosystem (at 300 ha rehabilitated) - dropped | Level of uptake of piloted adaptive technologies and practices with two sub-targets:<br>i) By the end of the project, the most successful adaptation options and measures are identified, and earmarked for replication; |
| Identification of crop opportunities (new crops and resilient livestock identified by the end of the project) - dropped | |
| Establishment and implementation of spatially explicit climate-change-proofed Rangeland Management and Rehabilitation Plans (RMRPs) for pilot project villages that include detailed guidelines for, *inter alia*: i) Rangeland | |

| | |
|---|---|
| resource inventories; ii) Rangeland improvement; iii) Rangeland rehabilitation; iv) Livestock development; v) Rangeland grazing management; vi) Institutional development (participatory pasture management), stakeholder awareness raising and training; and vii) Rangeland monitoring. | |
| % area (ha) increases in rehabilitated land disaggregated by each project site and each rangeland improvement and rehabilitation intervention (e.g. sowing of climate resilient forage species, rehabilitation of water points, anti-erosion interventions). | |
| Change in mean total cover (%) of selected increaser II[41] (*Aristida congesta* subsp. *congesta*, *Cynodon dactylon*, *Diheteropogon filifolius*, *Eragrostis curvula)* and decreaser[42] species *(Arundinella nepalensis*, *Themeda triandra*, *Seteria sphacelata* var. *sphacelata)* along permanent transects placed near pilot project villages. | |
| Decrease (%) in bare ground cover along permanent transects placed near pilot project villages. | |
| Increase in proportion (%) of households at pilot project sites that have a member that belongs to a grazing association. | |
| Increase in proportion (%) of households at pilot project sites that have coordinated their use of rangeland with other community members to improve rangeland productivity. | |
| Increase in proportion (%) of households at pilot project sites that have used climate resilient seeds to improve crop and rangeland productivity. | |
| Increase in proportion (%) of households at pilot project sites that have conducted erosion control measures to improve crop/rangeland productivity. | |
| Increase in proportion (%) of households at pilot project sites that have used rehabilitation of water points to improve rangeland productivity. | |
| Existence of research reports based on participatory action research that identify suitable climate change resilient forage and food crops and livestock breeds for use at the pilot project areas. | |
| **Component 4** | |
| Number of country-wide awareness campaigns on climate change, adaptation and adaptation options, focusing on early warning systems conducted | Degree of awareness of CC issues among key stakeholders - By the end of the project, there is a high degree of awareness and interest in climate change issues among the general public, students and the media; |
| Number of awareness products contributed to the climate change web-based knowledge platform for the government of Lesotho focusing on Early Warning systems and adaptation technologies (12). | |

[41] Increaser II species are not abundant in rangelands in good condition. These species replace Decreaser species where rangelands are overgrazed.
[42] Decreaser species predominate in rangelands in good condition and decline in abundance when rangelands deteriorate through over- or under-utilization.

| | |
|---|---|
| Number of journalists awarded yearly bursaries to report on CCA issues in Lesotho (three per year, 50 percent of the totals for all years women). | Climate change content reflected in curriculum |
| Development of a CCA reporting manual and training programme for journalists in Lesotho. | |
| Number of training workshops/programmes on CC and CCA reporting conducted for journalists in Lesotho. | |
| Number of knowledge facilitation workshops conducted for subject curriculum developers at primary, secondary and university levels on CCA. | |
| Number of curriculum review workshops conducted by subject curriculum developers at primary, secondary and university levels to identify opportunities for integrating CC into national curricula. | |
| Number of published subject-based best practice recommendations on the integration of CC and adaptation issues into national curricula at primary, secondary and university level. | |
| Existence of a Memorandum of Understanding (MOU) between the project and the Ministry of Education and Training (MOET), National Curriculum Committee (NCC) and National Curriculum Development Centre (NCDC). | |
| Number of pilot courses run at primary, secondary and university level based on curricula revised in accordance with best practice recommendations developed by the project. | |
| Number of evaluation reports produced on the effectiveness of pilot courses that integrate CC and adaptation issues into national curricula. | |

## 4.6 ANNEX 6: ALIGNMENT OF THE PROJECT TO UN ENVIRONMENT MTS AND POW:

| 2010-2013 MTS and POW Expected achievements | Project contribution/linkage to expected achievements |
|---|---|
| That adaptation planning, financing and cost effective preventative actions are increasingly incorporated into national development processes that are supported by scientific information, integrated climate impact assessments and local climate data | Component 3 – which trialed adaptation technologies in six villages with the intention of using the results to inform the National Climate Change Policy (formulation on-going) (especially on adaptation). The cost benefit analysis planned would have ensured that recommendations made to the Climate Change Policy advance the achievement of cost effective preventative actions being increasingly integrated into national development processes. The design and selection of the adaptation technologies was informed by lessons generated through several projects. This was to ensure that adaptation options are informed by science. |
| That improved technologies are deployed and obsolescent technologies phased out, financed through private and public sources including the Clean Development Mechanism; | Component 1 – which provided resources to upgrade the system for monitoring and predicting climate change impacts and delivering early warning for extreme events. The project provided six new Automated Weather Systems and the relevant software and upgraded technical skills, in contribution to ensuring that obsolescent technologies were phased out. |
| Country policymakers and negotiators, civil society and the private sector have access to relevant climate change science and information for decision-making. | All the components of the project, but specifically;<br><br>i) Under Component 2:<br>The project produced GIS-based hazard maps focused on project zones, sectoral risk and vulnerability maps focused on key productive sectors such as agriculture, water, livestock and forests, including relevant socio-economic data; and Provided training of sectoral ministries and central planning agencies on vulnerability, including economic aspects of vulnerability; PMU facilitated the development of policy documents on the sectoral and economic impacts of CC and analyses of potential maladaptation in key sectoral policies (agriculture, forests, water).<br><br>ii) Under Component 3:<br>• The project sort to increase public engagement on the climate change debate informed by climate science and local climate related challenges and opportunities. It therefore ensured that an awareness raising strategy under implementation was informed by accurate climate information; and<br>• It integrated climate information into the education curriculum. |

## 4.7 ANNEX 7: ALIGNMENT TO UN ENVIRONMENT/THE GLOBAL ENVIRONMENTAL FUND/DONOR STRATEGIC PRIORITIES

| CCA Focal Area Objectives | Project contribution |
|---|---|
| Objective 1: Reducing vulnerability | *Outcome 1.1 (mainstreamed adaptation)*: Component 2 of the project focuses on the inclusion of climate change adaptation in ministries and planning agencies, including the development of policy recommendations on adaptation, and the integration of climate change issues into key sectoral policy and planning frameworks. This will culminate in the approval of a Climate Change Adaptation Policy for Lesotho.<br>*Outcome 1.3 (strengthened livelihoods)*: Technologies and approaches to be implemented under Component 3 are targeted at the removal of root causes of vulnerability as well as to the demonstration of sustainable options for rural development |
| Objective 2 - Increase capacity | *Outcome 2.1 (increased knowledge)*: Component 4 of the project will implement a public awareness and education campaign. This will increase knowledge of climate change effects and adaptation at primary, secondary, and tertiary level, as well as increasing awareness of climate change among the public.<br>*Outcome 2.2 (strengthened capacity)*: Component 1 of the project will increase the technical and institutional capacity to reduce risks posed by climate change in Lesotho. This will be achieved by upgrading and installing meteorological equipment, and training government staff and local community members. |
| Objective 3 - Technology transfer | *Outcome 3.1 (successful demonstration)*: Component 3 of the project will support demonstration of best practices for climate change adaptation and resilient rural development. This will focus on the rehabilitation of rangelands and water-points and the distribution of resilient livestock and crop strains in six pilot villages. This will improve food and livelihood security for vulnerable rural populations, and promote the upscaling of these activities to other areas in Lesotho. |

## 4.8 ANNEX 8: PRODOC/CEO RISKS & ASSESSMENT

| Co-financing (Type/ Source) | UN Environment own Financing (US$1,000) | | Government (1,000) | | Other (Africa Adaptation Programme) | | Total Planned | Total Disbursed (1,000) |
|---|---|---|---|---|---|---|---|---|
| | Planned | Actual | Planned | Actual | Planned | Actual | | |
| Grants | - | - | 1,307,000 | 932,000 | | | 1,307,00 | 932,000 |
| In-kind | | | 584,500 | 1,067,000 | 830,000 | - | 1,414,500 | 1,067,000 |
| **Totals** | **-** | **-** | **1,891,500** | **1,999,000** | **830,000** | **-** | **2,721,500** | **1,999,000** |

## 4.9 ANNEX 9 - ASSUMPTIONS WITH MTR COMMENTS UPDATED AT TERMINAL EVALUATION

| Risks and Assumptions | Level | MTR comments updated at TE |
|---|---|---|
| Cultural resistance to change | Low | Consultative processes suggested appear appropriate to the risk, but also under consideration are the reasons for resistance and not assuming only a lack of awareness. |
| Theft and vandalism | Medium | Mitigation measures are commensurate with the risk, including insurance and identification of observers to monitor project activities. However, interviews during the Terminal Evaluation showed that neither theft nor vandalism became an issue during implementation. |
| Extreme weather events | Medium | Little can be done for this risk, and the mitigation measure is appropriate – to set up EWS in pilot communities. |
| Limited human capacity within ministries | Medium | Covers both technical capacity and actual human resources (re: turnover and retention). Suggests this is most relevant to Component 3, but is arguably important for all four components. |
| Technical adaptation measures implemented are not found to be cost-effective | Medium | The risk and assumptions table does not explain to whom the measures are meant to be cost effective, or what measures to take to ensure it. The cost benefit analysis has not been undertaken. It needs to be done to be done given the turn of events – with some of the adaptation technologies being reported to have failed by the communities. |
| Policy | Medium | Details indicate a concern for delays that may hinder adoption of said policy, but it's unclear if this means within in the project timeframe or more broadly speaking. |

Additional assumptions were provided by the baseline Report – presented in Table 11 below, with the Terminal Evaluation comments.

| Result/strategy | Assumption | Evaluation Office Comment |
|---|---|---|
| Objective/Goal | Pilot sites are the best places for the project interventions | This assumption should read that pilot sites provide the necessary conditions for successfully trialing adaptation measures. As argued elsewhere in this Terminal Evaluation report, trialing adaptation measures with the most vulnerable segment of society without replication under less challenging circumstances is bound to cast doubts at the findings of the trials. It begs the question - what was being tested: the adaptation technologies or the ability of the highly vulnerable to adapt? |
| | Communities respond positively to improved communication and adopt the appropriate adaptation response measures | It is unclear if this assumption refers to communities responding positively to the climate information and early warning messages or to the demonstrated adaptation technologies, hence the upscaling (rather than the piloting). |
| Component 1 | Costs of equipment and training will not rise markedly during project implementation | Valid and relevant |
| | Technical expertise and equipment for upgrading the network is available | Valid and relevant, especially as the project had inadequate budget to upgrade the infrastructure necessary in improving the network; |
| | Pilot sites are best placed to demonstrate the benefits of measures to adapt to climate change | See above |
| | Communication instruments are culturally and socially sensitive and help overcome potential communication barriers and resistance to adaptation measures | This should be an assumption as the project was in a position to ensure that the communication instruments are culturally and socially sensitive and can and help overcome potential communication barriers and resistance to adaptation measures |
| | Communities respond positively to improved communication and adopt the appropriate adaptation response measures | See above |
| Component 2 | Government is committed to integrating climate change and adaptation needs in development planning | This is a pre-condition. If there was no Government commitment to integrating climate change and adaptation needs in development planning the project would be a non-starter; hence it would have to include activities to influence the situation. |
| | Strong political will to streamline climate change into development policies | Same as above |
| | Good relationship between agencies dealing with climate change risks | Same as above |
| | Agencies mandated to work on climate change recognize the importance of the coordination mechanism | Same as above |
| Component 3 | Stakeholders are committed to implement the project interventions and provide the necessary support | This is a precondition. If the stakeholder commitment was in question, the project should add budgeted activities to cultivate the commitment. |
| Component 4 | Communication instruments are culturally and socially sensitive and help overcome potential communication barriers and resistance to adaptation measures | See above |
| | Costs of training will not rise markedly during project implementation | Valid and relevant |
| | Strong political will to integrate CC and CCA into the education system | Pre-condition |
| | Agencies mandated to develop and administer curricula recognize the importance of integrating CC and CCA into curriculum | Pre-condition. |

## 4.10 ANNEX 10: RESPONSES TO COMMENTS ON THE TERMINAL EVALUATION REPORT

***Terminal Evaluation of the Global Environment Facility/UN Environment Project***

Lesotho NAPA Project titled "Improvement of Early Warning System to Reduce Impacts of Climate Change and Capacity Building to Integrate Climate Change into Development Plans"

| ***Paragraph / section (as in the commented report version)*** | ***Stakeholder comment*** | ***UN Environment Evaluation Office (EO) responses to the comments*** | ***Consultant responses/ actions*** |
|---|---|---|---|
| ***Formatting of the document*** | - Use a,b,c, bullets throughout the report all lists instead of ticks or different formats<br>- fix that table setting, some parts are hidden and cannot be read. Review table layout throughout- some cut<br>- Digits for e.g. Component 1, Objective/ Output/ Outcome/ Intermediate Result 1/ Annex / Recommendation/ Annex or when the number value is part of a heading, title or name, I think it should be written as 'Component 1'.<br>- Left justify all text (instead of current block format)<br>- Ensure all paragraphs numbered<br>- Remove sources: LMS confirms that…- use passive tone instead<br>- Write out abbreviations in full: GEF, TE (Terminal Evaluation), NAPA<br>- Consistent use of capital letters | | *All formatting has been fixed as recommended.* |
| ***Tables 6, 7, 10, 11*** | - Consider shifting Tables 6, 7, 10, 11 to annexes<br>- | | *Done as recommended* |

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|---|---|---|---|
| **Reconstructed Theory of Change** | Arrows – different colours – from outcomes to intermediate results , and IR to impact<br>Remove timeliness text in TOC related table<br>Ensure not to change goal posts which leads to overly positive assessment | | *Harmonized colour of arrows in the ToC diagram; timelines were removed from the ToC tables; justification was provided, and accepted by the UN Environment, on the ratings on the evaluation criteria.* |
| Rating on effectiveness | - Effectiveness is rated as satisfactory now. My impression based on the read is that direct outcome 3 (use of pilot information in policy or other upstream processes) has not been achieved.<br>- The purpose of the pilots was still to inform policy making. If this did not happen the outcome was not achieved.<br><br>Or if there is strong indication that these pilots will be still utilized to inform policy then that can be stated in the outcome assessment- Again, pilots were output level achievements. This can be only satisfactory if knowledge from the pilots was utilized. The consultant's analysis seems very thorough but there appears to confusion what to rate at the outcome level | | *Effectiveness is rated Moderately Satisfactory* |
| | - Please remove Vulnerability from outcome level of Reconstructed Theory of Change, as it has moved the ambition level beyond what is achievable beyond this project. Nevertheless, the analysis text discussed clearly about the limitations of this components but the rating doesn't follow this analysis. Here it sounds that we are changing the goal post of the component 3 to decreased vulnerability. Remove this as it's beyond the scope of this project alone and would require trials to continue over several seasons to see the trend | | *Done as recommended.* |
| | - The Prodoc and the MTR reported that the project stakeholders took **a deliberate decision to exclude** | | *Sustainably referred to the mainstreaming of project activities into the government entities,* |

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| | **civil society in the implementation, due to their disregard of government procedures in their field operations.** As reported in the evaluation results section, the **exclusion of the civil society probably promoted sustainability** (OR NOT?) of the project results. However, it was also a missed opportunity because they tend to be less costly and more in tune with community realities than a Government Department of Research. Add reference to the paragraph number where this is further discussed. | | *which would have secured continuity of support to pilot villages through the regular extension service. The TE explains this fact more clearly and cross-references the sections where the issue is discussed.* |
| | - The adaptation technologies were trailed with the most vulnerable members of the community in the most vulnerable villages of the most vulnerable districts, without counterfeit trials in less vulnerable places. This begs the question of whether this was a trial of adaptation technologies or the ability of vulnerable communities to adopt adaptation technologies; ii) the collapse of sustainability of the project results might be widespread; evaluations may not be capturing sustainability challenges because they happen too early -- I don't think this is what is meant – meaning needs to be clarified (a counterfactual would not have a trial, so maybe just 'without trials') | | *The meaning was clarified throughout the document as captured under Lesson 5:* **Lesson 5:** The adaptation trials under Component 3 were conducted under very difficult conditions, targeting the most vulnerable households in the six most vulnerable villages of the three most vulnerable districts. No control trails were implemented under less difficult conditions to provide a counterfactual. Despite showing early signs of success, most of the initiatives had failed by the TE. The failure can be attributed to a combined effect of weakness in the design of the trials, the drought of 2015-2016 and the lack of project funds to follow up in 2016, occasioned by disbursement delays. The cost benefit analysis proposed in the project, but not yet undertaken, should provide clarity on the cause of the failure and provide recommendations for further adaptation work in Lesotho and globally. The lesson here is that when adaptation technologies are trialled in extreme conditions without control trials, it is difficult to determine what drives failure or success. |

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| Rating on efficiency | Unlike financial management, there are no sub ratings for timeliness and cost effectiveness so I have removed those. Please do tie up the write up under cost effectiveness to what the criteria reads for a moderately unsatisfactory score – "stakeholders weren't affected by delays – indeed you say they tried to be cost effective" and also some activities were sequenced correctly" | | *The report was adjusted as recommended* |
| Length of report | Reduce length – (update only some aspects of the project design), update only the aspects that were triangulated | | *Done as recommended* |
| | Rather than rate the component, Rate each of the outcome statements in a specific component) its (in the using : achieved, partially, achieved, not achieved? E.g. as the outcome increased use of climate info in local decision-making | | *Done as recommended* |
| | Did the drought (natural context) alone slow down outcome 3 results- (what were the primary reasons | | The trials failed for a variety of reasons inherent in the design rather than due to the external factor, drought alone. These reasons included the choice of trial location- the most vulnerable villages in the most vulnerable districts – these populations may not have had the capacity to absorb the trials. As well, these trials were not compared to trials in less vulnerable places. Another factor is that civil society, more attuned to community realities than the Government Department of Research, were not involved to support with back up seed supply or other areas. This has been explained better throughout the TE report. |
| On supervision by UNEP | Was the quality of supervision by UNEP was uniform and of required standards. | | My investigations – through triangulation of information led to a very different conclusion, eventually. The cause of the delayed disbursement in 2016 had nothing to do with a |

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| | | | missing TM in UNEP as alleged by government, but by inaccurate financial reports for 2nd and 3rd quarter of 2015 – and misallocation of funds to finance people to go to Europe for a COP. The TM then (Nina) sent many comments that were not adequately addressed. This was in line with general breakdown that occurred at the beginning of 2015. The original TM left in June 2016 and Nauman came on board in Sept 2016. He decided to disburse in late 2016. The CTA was indeed missing for all of 2016 because the project was NOT doing anything. According to the contract to the company, they charged the company in line with timesheets; so he couldn't advise them if they didn't call on his services; and the project did not pay them in 2016. I could not find any fault with UNEP supervision, and the government was full of praise for UNEP. |
| On recommendations | Explain the context of the recommendation so they can be read and understood in isolation of the rest of the report | | Done as recommended |
| Financial data | Please cross-check financial data – final expenditure and co-finance | | Done as recommended |

## 4.11 ANNEX 11: RATING OF THE TE REPORT

## Evaluation Title: Terminal Evaluation

**GEF Project: "Improvement of Early Warning System to Reduce Impacts of Climate Change and Capacity Building to Integrate Climate Change into Development Plans", Lesotho**

All UN Environment evaluations are subject to a quality assessment by the Evaluation Office. This is an assessment of the quality of the evaluation product (i.e. evaluation report) and is dependent on more than just the consultant's efforts and skills. Nevertheless, the quality assessment is used as a tool for providing structured feedback to evaluation consultants, especially at draft report stage. This guidance is provided to support consistency in assessment across different Evaluation Managers and to make the assessment process as transparent as possible.

| | Final Report Rating |
|---|---|
| **Substantive Report Quality Criteria** | |
| ***Quality of the Executive Summary:***<br>The Summary should be able to stand alone as an accurate summary of the main evaluation product. It should include a concise overview of the evaluation object; clear summary of the evaluation objectives and scope; overall evaluation rating of the project and key features of performance (strengths and weaknesses) against exceptional criteria (plus reference to where the evaluation ratings table can be found within the report); summary of the main findings of the exercise, including a synthesis of main conclusions (which include a summary response to key strategic evaluation questions), lessons learned and recommendations. | 5.5 |
| ***I. Introduction***<br>A brief introduction should be given identifying, where possible and relevant, the following: institutional context of the project (sub-programme, Division, regions/countries where implemented) and coverage of the evaluation; date of PRC approval and project document signature); results frameworks to which it contributes (e.g. Expected Accomplishment in POW); project duration and start/end dates; number of project phases (where appropriate); implementing partners; total secured budget and whether the project has been evaluated in the past (e.g. mid-term, part of a synthesis evaluation, evaluated by another agency etc.)<br>Consider the extent to which the introduction includes a concise statement of the purpose of the evaluation and the key intended audience for the findings? | 6 |
| ***II. Evaluation Methods***<br>This section should include a description of how the *TOC at Evaluation*[43] was designed (who was involved etc.) and applied to the context of the project?<br>A data collection section should include: a description of evaluation methods and information sources used, including the number and type of respondents; justification for methods used (e.g. qualitative/ quantitative; electronic/face-to-face); any selection criteria used to identify respondents, case studies or sites/countries visited; strategies used to increase stakeholder engagement and consultation; details of how data were verified (e.g. triangulation, review by stakeholders etc.).<br>The methods used to analyse data (e.g. scoring; coding; thematic analysis etc.) should be described.<br>It should also address evaluation limitations such as: low or imbalanced response rates across different groups; gaps in documentation; extent to which findings can be either generalised to wider evaluation questions or constraints on aggregation/disaggregation; any potential or apparent biases; language barriers and ways they were overcome. | 6 |

[43] During the Inception Phase of the evaluation process a *TOC at Design* is created based on the information contained in the approved project documents (these may include either logical framework or a TOC or narrative descriptions). During the evaluation process this TOC is revised based on changes made during project intervention and becomes the *TOC at Evaluation*.

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| Ethics and human rights issues should be highlighted including: how anonymity and confidentiality were protected and strategies used to include the views of marginalised or potentially disadvantaged groups and/or divergent views. | |
| ***III. The Project***<br>This section should include:<br>• *Context:* Overview of the main issue that the project is trying to address, its root causes and consequences on the environment and human well-being (i.e. synopsis of the problem and situational analyses).<br>• *Objectives and components*: Summary of the project's results hierarchy as stated in the ProDoc (or as officially revised)<br>• *Stakeholders:* Description of groups of targeted stakeholders organised according to relevant common characteristics<br>• *Project implementation structure and partners:* A description of the implementation structure with diagram and a list of key project partners<br>• *Changes in design during implementation:* Any key events that affected the project's scope or parameters should be described in brief in chronological order<br>• *Project financing:* Completed tables of: (a) budget at design and expenditure by components (b) planned and actual sources of funding/co-financing | 6 |
| ***IV. Theory of Change***<br>The TOC at Evaluation should be presented clearly in both diagrammatic and narrative forms. Clear articulation of each major causal pathway is expected, (starting from outputs to long term impact), including explanations of all drivers and assumptions as well as the expected roles of key actors.<br>Where the project results as stated in the project design documents (or formal revisions of the project design) are not an accurate reflection of the project's intentions or do not follow OECD/DAC definitions of different results levels, project results may need to be re-phrased or reformulated. In such cases, a summary of the project's results hierarchy should be presented for: a) the results as stated in the approved/revised Prodoc logframe/TOC and b) as formulated in the TOC at Evaluation. *The two results hierarchies should be presented as a two column table to show clearly that, although wording and placement may have changed, the results 'goal posts' have not been 'moved'.* | 6 |
| ***V. Key Findings***<br><br>**A. Strategic relevance:**<br>This section should include an assessment of the project's relevance in relation to UN Environment's mandate and its alignment with UN Environment's policies and strategies at the time of project approval. An assessment of the complementarity of the project with other interventions addressing the needs of the same target groups should be included. Consider the extent to which all four elements have been addressed:<br>1. Alignment to the UN Environment Medium Term Strategy (MTS) and Programme of Work (POW)<br>2. Alignment to UN Environment/ Donor/GEF Strategic Priorities<br>3. Relevance to Regional, Sub-regional and National Environmental Priorities<br>4. Complementarity with Existing Interventions | 6 |
| **B. Quality of Project Design**<br>To what extent are the strength and weaknesses of the project design effectively summarized? | 6 |

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|---|---|
| **C. Nature of the External Context**<br>For projects where this is appropriate, key external features of the project's implementing context that limited the project's performance (e.g. conflict, natural disaster, political upheaval), and how they affected performance, should be described. | 6 |
| **D. Effectiveness**<br>**(i) Outputs and Direct Outcomes:** How well does the report present a well-reasoned, complete and evidence-based assessment of the a) delivery of outputs, and b) achievement of direct outcomes? How convincing is the discussion of attribution and contribution, as well as the constraints to attributing effects to the intervention. | 5.5 |
| **(ii) Likelihood of Impact:** How well does the report present an integrated analysis, guided by the causal pathways represented by the TOC, of all evidence relating to likelihood of impact?<br>How well are change processes explained and the roles of key actors, as well as drivers and assumptions, explicitly discussed? | 6 |
| **6E. Financial Management**<br>This section should contain an integrated analysis of all dimensions evaluated under financial management and include a completed 'financial management' table.<br>Consider how well the report addresses the following:<br>• *completeness* of financial information, including the actual project costs (total and per activity) and actual co-financing used<br>• *communication* between financial and project management staff<br>• | 5 |
| **F. Efficiency**<br>To what extent, and how well, does the report present a well-reasoned, complete and evidence-based assessment of efficiency under the primary categories of cost-effectiveness and timeliness including:<br>• Implications of delays and no cost extensions<br>• Time-saving measures put in place to maximise results within the secured budget and agreed project timeframe<br>• Discussion of making use of/building on pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc.<br>• The extent to which the management of the project minimised UN Environment's environmental footprint. | 6 |
| **G. Monitoring and Reporting**<br>How well does the report assess:<br>• Monitoring design and budgeting *(including SMART indicators, resources for MTE/R etc.)*<br>• Monitoring of project implementation *(including use of monitoring data for adaptive management)*<br>• Project reporting *(e.g. PIMS and donor report)*<br>• | 6 |
| **H. Sustainability**<br>How well does the evaluation identify and assess the key conditions or factors that are likely to undermine or contribute to the persistence of achieved direct outcomes including:<br>• Socio-political Sustainability<br>• Financial Sustainability<br>• Institutional Sustainability | 6 |

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| **I. Factors Affecting Performance**<br>These factors are <u>not</u> discussed in stand-alone sections but are **integrated in criteria A-H as appropriate**. To what extent, and how well, does the evaluation report cover the following cross-cutting themes:<br>• Preparation and readiness<br>• Quality of project management and supervision[44]<br>• Stakeholder participation and co-operation<br>• Responsiveness to human rights and gender equity<br>• Country ownership and driven-ness<br>• Communication and public awareness | 6 |
| ***VI. Conclusions and Recommendations***<br><br>**i. Quality of the conclusions:** The key strategic questions should be clearly and succinctly addressed within the conclusions section.<br>It is expected that the conclusions will highlight the main strengths and weaknesses of the project, and connect them in a compelling story line. Conclusions, as well as lessons and recommendations, should be consistent with the evidence presented in the main body of the report. | 6 |
| **ii) Quality and utility of the lessons:** Both positive and negative lessons are expected and duplication with recommendations should be avoided. Based on explicit evaluation findings, lessons should be rooted in real project experiences or derived from problems encountered and mistakes made that should be avoided in the future. Lessons must have the potential for wider application and use and should briefly describe the context from which they are derived and those contexts in which they may be useful. | 6 |
| **iii) Quality and utility of the recommendations:**<br>To what extent are the recommendations proposals for specific action to be taken by identified people/position-holders to resolve concrete problems affecting the project or the sustainability of its results? They should be feasible to implement within the timeframe and resources available (including local capacities) and specific in terms of who would do what and when.<br>Recommendations should represent a measurable performance target in order that the Evaluation Office can monitor and assess compliance with the recommendations. | 6 |
| ***VII. Report Structure and Presentation Quality*** | |
| **i) Structure and completeness of the report:** To what extent does the report follow the Evaluation Office guidelines? Are all requested Annexes included and complete? | 6 |
| ii) **Quality of writing and formatting:**<br>Consider whether the report is well written (clear English language and grammar) with language that is adequate in quality and tone for an official document? Do visual aids, such as maps and graphs convey key information? Does the report follow Evaluation Office formatting guidelines? | 5.5 |
| 5.85 | |

[44] In some cases 'project management and supervision' will refer to the supervision and guidance provided by UN Environment to implementing partners and national governments while in others, specifically for GEF funded projects, it will refer to the project management performance of the executing agency and the technical backstopping provided by UN Environment.