Adapting National and Transboundary Water Resources Management to Manage Expected Impacts of Climate Change in Swaziland.

(PIMS 3603)

Terminal Evaluation

FINAL REPORT

Community Member doing Laundry on Sand Dam

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PROJECT SUMMARY

Government of Swaziland
United Nations Development Programme
Special Climate Change Fund

Country: Swaziland	PIMS Number	3603					
	Atlas Project Number	00061373					
	Project Type	FSP	X	MSP		EA	
Implementing Agency	Ministry of Natural Resources and Energy/Department of Water Affairs						
GEF Focal Area	Climate Change						
UNDAF Outcome	Outcome 2: Increased and more equitable access of the poor to assets and other resources for sustainable livelihoods						
UNDP Country Outcome	Outcome 3: Environmental Sustainability Improved						
UNDP Country Programme Outputs	Output 1.1.1:Develop national framework including policies that promote the poor to access and effectively utilize productive resources						
	Output 3.1.1: Improved capacity of key stakeholders for mainstreaming environmental issues into poverty reduction						

Project Timeframe **Project Budget**

Project Signing Date: 6, June 2012	Total Budget: US$ 7,494,900
Original Planned Closing Date: 30/6/2016	SCCF: US$ 1,670,000
Current Planned Closing Date: 30/6/2016	DWA: US$4,530,900
Planned Project Duration: 48 months	KOBWA:US$ 34,000
	UNDP C/O: US$ 1,260,000

Acknowledgements

The Terminal Evaluation Team would like to express their gratitude to the representatives of the communities who have been at the centre of the implementation of the Adapting National and Transboundary Water Resources Management in Swaziland to manage the Expected Impacts of Climate Change project for making the time to meet with us and discuss their views and opinions on the project during the field mission.

We also appreciate the time taken by Project Board and Project Technical Team members to attend consultation meetings in Mbabane. The contributions of the Department of Water Affairs and other government entities to this process is also acknowledged.

Finally, the evaluation team recognises that the evaluation exercise would not have been successful without the support provided by the UNDP Swaziland Office and the facilitation by the Project Management Unit.

Although all the stakeholders we met expressed views and opinions on the project, the evaluation team is responsible for the final contents, including conclusions and recommendations, of this report.

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Executive Summary

Project Information Summary

Project Title: Adapting National and Transboundary Water Resources Management in Swaziland to manage the Expected Impacts of Climate Change		
UNDP Project ID (PIMS #): 3603	PIF Approval Date: 19 May 2010	
GEF Project ID (PIMS #) 3603	CEO Endorsement Date: 13 April 2012	
ATLAS Business Unit: SWZ 10 AWARD #:00061373 Project ID: 00077723	Project Document Signature Date:6 June 2012	
Country: Swaziland	Date Project Manager hired: November 2012	
Region: Africa	Inception Workshop Date: December 2012	
Focal Area: Climate Change	Terminal Evaluation completion Date: June 2016	
GEF Focal Area Strategic Objective: Climate Change Adaptation for LDCF/SCCF	Planned project closing Date: June 2016	
Trust Fund [Indicate GEF TF, LDCF, SCCF,NPIF] SCCF	If revised, proposed operational closing date: n/a	
Executing Agency/Implementing Partner: Department of Water Affairs		
Other Execution Partners:		
Project Financing	At CEO Endorsement	At Terminal Evaluation
[1] GEF Financing	US$ 1,670,000	US$1,670,000.00
[2]UNDP (Cash)	US$ 200,000	US$ 118,209.19
[3]UNDP Contribution	US$ 1,260,000	US$1,350,000.00
[4]Government	US$ 4,530,900	US$7,632,230.00
[5]Other Partners (KOBWA)	US$ 34,000	US$ 89,968.79
[6] [2+3+4+5]	US$ 5,824,900	US$ 9,190,407.98
TOTAL PROJECT COSTS	US$ 7,494,900	US$ 10,869,407.98

Swaziland is a small country covering a land area of just over 17,000 square kilometers. The country is divided into four administrative regions namely, Hhohho in the north, Manzini in the centre of the country, Shiselweni in the south and Lubombo in the east. The country is drained by three main river basins namely the Usuthu, the Inkomati and the Umbeluzi.

Swaziland has a population of about 1.1 million people of which 53% are women.

The country is classified as a Lower Middle Income country even though it still faces serious social and economic development challenges which according to the United Nations Development Assistance Framework (2016-2020) are characterised by:

- Slow economic growth;
- High levels of inequality and poverty;
- High unemployment rates especially amongst the youth;
- High incidence and prevalence of communicable (HIV and TB) and non-communicable diseases in the face of health system constraints;

- High maternal mortality;
- High levels of chronic malnutrition;
- Increasing number of vulnerable households;
- Limited research and technical capacity to generate timely and quality data to inform integration of risks and climate change adaptation; and
- Capacity constraints to effectively implement pro-poor development policies and strategies at high level decision making level and for the uptake of development innovations at community level.

The economy of Swaziland is agro-based with up to 70% of the population dependent on subsistence agriculture. This renders the country's economy susceptible to the impacts of climate change. The water sector in Swaziland is particularly vulnerable as evidenced by increasingly unpredictable weather patterns. Water is generally in short supply in the drier regions of the country resulting in food insecurity.

The Adapting National and Transboundary Water Resources Management in Swaziland to the Expected Impacts of Climate Change Project (CC-A) was designed to strengthen the response to the affects of climate change on the country's water resources through the achievement of the following results:

- Strengthening institutional capacity for Integrated Water Resources Management (IWRM) in the context of climate variability and change;
- Integration of climate risks into local, national and regional plans and legislation that affect IWRM;
- Strengthening local capacity to successfully respond to climate change risks affecting water resources and agricultural production; and
- Restoration of degraded ecosystems, including forests, to improve water supply and quality.

This was to be achieved through the implementation of activities under three Outcomes:

Outcome 1: Institutional capacity for climate change adaptation strengthened through the integration of climate change risks into national water resources management policies and the establishment of inter-sectoral coordination mechanisms based on inclusive and informed dialogue.

Outcome 2: Climate change risk management measures integrated into national water and agricultural programmes and implemented in pilot projects to promote adaptation on the ground

Outcome 3: Negotiations on transboundary water management for the Incomati, Maputo and Umbeluzi river basins informed by climate change risk analysis.

This report details the findings and recommendations of the Terminal Evaluation of the CC-A project.

The Terminal Evaluation established that knowledge and awareness about climate change and its potential impact on the economy of Swaziland have increased since the launch of the CC-A project. The extent of vulnerability to climate change was assessed through the Vulnerability Assessment Study commissioned by the project while the distribution of groundwater in the country has been mapped. The potential for and utility of crop diversification has been documented. These studies have contributed to the strengthening of institutional capacity for IWRM in the context of climate variability and change and the integration of climate risks into local, national and regional plans and legislation that effect IWRM;

The capacities of local communities to respond to climate change risks affecting water resources and agricultural production have been strengthened through the implementation of climate change adaptation

projects which are now contributing to enhanced community resilience while degraded ecosystems including forests are being rehabilitated to improve water supply and quality. The project made interventions that address the needs of specific target beneficiaries including women and children especially through the water harvesting projects. These initiatives have also been used to enhance the capacity of Swaziland's delegation to the Tripartite Permanent Technical Committee established to negotiate mechanisms for the management and equitable allocation of the waters that are shared between Swaziland and her neighbours. Despite these achievements, the evaluation team identified weaknesses in project governance and management among the community groups where pilot projects have been implemented. Management structures established at most project sites are still dependent upon external extension agents for basic maintenance of damaged structures such as water taps and water transfer pipes. School management committees as well as project management committees at the rainwater harvesting and sand dam sites will therefore require additional institutional strengthening support for them to be able to manage the projects that they have benefitted from without outside support.

The Terminal Evaluation concludes that the project addressed issues that are relevant to Swaziland's social and economic development. The project was also efficiently implemented by all stakeholders with project finances properly accounted for. The project was subjected to annual financial audits in 2014 and 2015 as part of the audit processes for the Ministry of Natural Resources and Energy with no qualified opinions.

The project has yielded a number of important results which need to be nurtured beyond the project's lifespan for them to be sustainable. The Table below summarises the assessment of the performance of the project by the evaluation team.

Rating of Project Performance

Evaluation Ratings:			
Monitoring and Evaluation	Rating	IA&EA Execution	Rating
M&E design at entry	S	Quality of UNDP Implementation– Implementing Agency (IA)	HS
M&E Plan Implementation	S	Quality of Execution – Executing Agency (EA)	S
Overall quality of M&E	S	Overall quality of Implementation/Execution	S
Assessment of Outcomes	Rating	Sustainability	Rating
Relevance	R	Financial resources	L
Effectiveness	HS	Socio-political	L
Efficiency	S	Institutional framework and governance	L
Overall Project Outcome Rating	S	Environmental	L
		Overall likelihood of sustainability	L

Ratings Scales		
Ratings for Effectiveness, Efficiency, Overall Project Outcome Rating, M&E, IA & EA Execution 6:Highly satisfactory (HS): No shortcomings 5: Satisfactory (S): Minor shortcomings 4: Moderately Satisfactory (MS): moderate shortcomings 3: Moderately Unsatisfactory (MU): significant shortcomings 2: Unsatisfactory (U): major shortcomings 1: Highly unsatisfactory (HU): severe problems	**Sustainability Ratings** 4: Likely(L) negligible risks to sustainability 3: Moderately Likely (ML): Moderate risks 2: Moderately Unlikely: Significant Risks 1: Unlikely: Severe risks	**Relevance ratings** 2: Relevant (R) 1: Not Relevant (NR)
Additional ratings where relevant: Not Applicable (N/A) Unable to Assess (U/A)		

The TE identified the following **lessons** from the implementation of the project:

1. Community groups understand the implications of climate change and they are willing to participate in projects that address threats to their livelihoods.

2. Responses to and integration of climate change into national development programmes should be guided by national priorities to ensure the participation of all stakeholders.

3. Participatory planning processes promote more long lasting impacts among beneficiary communities. The approach adopted under the CC-A project to involve community groups in the project design and implementation has resulted in community groups at the pilot sites owning the project which bodes well for sustainability.

4. Climate change adaptation needs to be mainstreamed into development planning initiatives at various planning levels for the results from the initiatives to be sustainable over the long term. The integration of climate change adaptation initiatives into Country Development initiatives will guarantee the institutionalization of responses to climate change into national development planning.

The following is a summary of the evaluators' recommendations for taking the project forward:

Recommendation 1: It is recommended that UNDP should consider using the balance on the SCCF component of the project budget as at June 30th 2016 to support the consolidation of the project's achievements in preparation for handing the project over to selected institutions and community groups. This will require that the CC-A project be extended for a minimum of six months (up to March 2017) to allow for this work to be finalised.

The recommended project extension period will be used to train beneficiary communities and relevant government and other support entities in project management and maintenance which will enhance project governance and increase the potential for sustainability of project achievements which have been realised to date. The project recently concluded community support agreements with NAMBOARD and World Vision under the ecosystems rehabilitation initiative. The proposed extension will provide time for the PMU and DWA to guide the development of workplans and the implementation of activities under these agreements.

Recommendation 2: It is recommended that UNDP Swaziland and the Regional Technical Advisor support the Government of Swaziland to identify new and additional financial resources for use in replicating the pilot project initiated under the CC-A project to cover more communities in the country. A possible source of funding is the Green Climate Fund and the GEF Small Grants Programme.

The pilot projects funded through the CC-A project have demonstrated the viability of community level interventions in climate change adaptation. The DWA has acknowledged that the experience so far has improved the GoS appreciation of climate change and the various ways it can be mitigated. The department should therefore assimilate the activities initiated under the project into their work programme to facilitate funding of these initiatives as part of formal government investments. The CC-A project has resulted in many important outputs on a very limited budget. The sand dams and the water harvesting projects that were supported by the project have demonstrated climate change adaptation strategies which will require further financial support for them to be sustainable into the future.

Recommendation 3: It is recommended that all relevant Ministries and departments to include various project elements in their plans and annual budgets in order for them to attract sustainable funding.

The project produced a wide range of significant outputs especially in relation to adaptation to climate change at community level which need nurturing for them to transform into results. These achievements have been attributed to strong leadership and guidance provided by the project arrangements put in place at project mobilisation.

Recommendation 4: It is recommended that the Project Steering Committee should be left in place over the recommended one year extension period so that the same effective project leadership remains available to the Project Management Unit.

The need for project sustainability cannot be overemphasised. If the project is to be extended, it is critical that the current Steering Committee members are retained for institutional memory and to ensure that the initial goal and vision are carried forward.

Recommendation 5: That DWA inherit the Outputs from the CC-A project and integrate these into their formal work programmes. This way any additional work that needs to be supported can be funded through normal government budgetary allocations.

The Project Manager has almost single-handedly spearheaded the implementation of the project over the past four years. As the project closes it is expected that the DWA will assume responsibility over the project over the extension period.

Recommendation 6: It is recommended that the DWA identifies and designates a "face" for the project to ensure the sustainability of the project outputs into the future. This "face" could be in the form of a dedicated unit or individual within DWA.

Information and publicity materials as well as policy briefs on climate change adaptation and its mainstreaming into development planning have been developed under the CC-A project. Most of this work was accomplished very late in the project and the PMU has not had the time to appropriately package these products.

Recommendation 7: It is recommended that UNDP Swaziland and the Department of Water Affairs complete the packaging of the information and publicity materials on the various elements of the project for use in publicizing project results. Particular attention should be paid to the production-- of a Communication Strategy on climate change as well as simple one-page messages targeting policy makers. The DWA has already committed to taking over project oversight and will therefore be able to use these materials to publicise the benefits of climate change adaptation.

List of Acronyms

CC-A	Climate Change Adaptation
DWA	Department of Water Affairs
GDP	Gross Domestic Product
GEF	Global Environment Facility
IWRM	Integrated Water Resources Management
JWC	Joint Water Commission
KDDP	Komati Downstream Development Project
KOBWA	Komati Basin Water Authority
LUSIP	Lower Usuthu Smallholder Irrigation Project
MNRE	Ministry of Natural Resources
MOA	Ministry of Agriculture
MOET	Ministry of Education and Training
MOH	Ministry of Health
MTAD	Ministry of Tikhundla Administration and Development
MTEA	Ministry of Tourism and Environmental Affairs
NAMBOARD	National Marketing Board
NCCC	National Climate Change Committee
NCCP	National Climate Change Policy
NDMA	National Disaster Management Agency
NDS	National Development Strategy
NGO	Non-Governmental Organisation
NMS	National Meteorological Services
NWA	National Water Authority
NWP	National Water Policy
PB	Project Board
PMU	Project Management Unit
PRSAP	Poverty Reduction Strategy and Action Programme
PTC	Project Technical Committee
RBA	River Basin Authority
SCCF	Special Climate Change Fund
SEA	Swaziland Environment Authority
SPA	Strategic Priority on Adaptation
SWADE	Swaziland Water and Agricultural Development Enterprise
SWAp	Sector Wide Approach
TE	Terminal Evaluation
TOR	Terms of Reference
TPTC	Tripartite Technical Committee
TWRM	Trans-boundary Water Resources Management
UNCBD	United Nations Convention on Biological Diversity
UNDP	United Nations Development Program
UNISWA	University of Swaziland
WASH	Water and Sanitation Hygiene

1. Introduction

1.1 Purpose of the evaluation

This report details the results of the Terminal Evaluation (TE) of the Project: Adapting National and Trans-boundary Water Resources Management in Swaziland to manage the expected impacts of climate change. As stated in the Terms of Reference (ToR), the purpose of the evaluation is to provide principal project stakeholders, namely: UNDP-GEF; UNDP Swaziland Country Office, the Government of Swaziland with an independent assessment of the following aspects of the project:

- the extent to which intended project results have been achieved and to draw lessons that can both improve the sustainability of benefits from this project and assist in the overall enhancement of UNDP programming;
- the weaknesses and strengths of the project design and implementation strategy and come up with recommendations for addressing identified gaps in future programming;
- the extent to which the project was successfully mainstreamed with other UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and gender;
- the extent to which the project is achieving impacts or progressing towards the achievement of impacts with respect to ecosystems health, environmental degradation, poverty reduction and climate change adaptation;
- the likelihood of sustainability of these impacts;
- lessons that have been generated for use in developing similar initiatives in future;
- contributions to the knowledge base in relation to GEF's contributions to global environmental benefits.

1.2 Scope and Methodology of the Evaluation

This TE was undertaken following the requirements as set out in the Term of Reference (ToR) and in line with the guidance provided in "Guidance for Conducting Terminal Evaluation of UNDP Supported, GEF-Financed Projects" (UNDP/GEF, 2014).

The study was initiated through a **Desktop study / Data Collection exercise** which involved collecting and reviewing basic project documentation, identifying key issues, ascertaining sites for field visits, interviews with key stakeholders and beneficiaries and organizing logistics as well as TE planning between the TE team and the Project Team, all of which culminated to an Inception Report which was submitted and approved on May 17th 2016.

Three data collection approaches employed in this study were as follows:

Review of primary data sources including national and project based documents with a bearing on project design, implementation and monitoring. National Development Plans, sectoral plans on water and from sectors whose plans impact on water resources management, land management and climate change were reviewed to understand the context of the project. The list of documents reviewed are indicated in **Annex 6**.

In addition, data was also collected from national policies and strategies to implement the UNCBD, and other international convention web sites, interviews with Project Team, UNDP staff, key project partners and relevant stakeholders,

Consultations with wide spectrum of stakeholders. These consultations were conducted through a variety of approaches including the use of semi-structured interviews, focus group meetings, and use of one-on-one interviews (list of stakeholders consulted is in **Annex 4**).

On 16 May 2016 a meeting was held with the Country Project Team to get further insights into the findings already obtained from the project reports. In addition a meeting with the Director of the Department of Water Affairs was held to further discuss project conception, implementation and challenges and benefits.

Field visits to selected project implementation sites to observe project outputs and possible impacts were conducted according to the following schedule (also attached in **Annex 5**).

On 17 May 2016 a field visit was conducted to the Ntjanini Sand Dam and the Matsanjeni Sand Dam project sites where the Consultancy team met with the beneficiary committees. The last project site visited on this day was the Lubovane automated weather station.

On 18 May 2016 a visit was conducted to the Lugulo Sand dam at kaBhudla, the Mbelebeleni Ecosystem Restoration Project and Malamlela Primary School Rainwater Harvesting project. Again the Consultancy team met with the project committee members at all three sites.

On 19 May 2016 site visits were conducted at Bulandzeni and Mbasheni Primary Schools to assess rainwater harvesting projects. The TE team also met with school committees at both schools.

On 20 May 2016 a stakeholder consultation meeting with the Project Technical Committee was held at the Royal Villas at Ezulwini Valley (the list of stakeholders is attached in **Annex 4**). On May 23, 2016 the

team met with the Project Board at the Mountain Inn where the following aspects of the project were discussed:

Project Formulation:

The stakeholders were asked to evaluate whether the project design and conceptualisation addressed the root causes of the problem it was meant to address. They were further asked to establish the appropriateness of the project components for achieving the laid out objectives, the quality and appropriateness of the indicators selected to guide project implementation, the extent to which the project is based upon and driven by national priorities, the extent of stakeholder involvement in the design and whether the project design made use of lessons from similar activities implemented elsewhere.

Project Implementation:

On this aspect the stakeholders were asked to assess the following perspectives: use of the Logical Framework as a management tool, use of adaptive management techniques to respond to changing circumstances, and the extent to which project stakeholders were involved as well as the quality of financial management and planning exercised by the project team.

Project Results:

It was also important to ask stakeholders to assess project results as well as the various elements of the project.

In conducting the overall project evaluation the team followed the guidelines as per the GEF Project Evaluation Guidelines. The guidelines require that all project evaluations assess the following criteria: Relevance, Effectiveness, Efficiency; Sustainability and Impacts being realised through project implementation. These criteria were assessed through the use of the questions indicated in the Table below:

Evaluation Criteria	**Indicators**	**Sources**	**Methodology**
Relevance: How does the project relate to the main objectives of the GEF focal area, and to the environment and development priorities at the local, regional and national levels?			
Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?			
Efficiency: Was the project implemented efficiently, in-line with international and national norms?			
Sustainability: To what extent are there financial, institutional, and/or environmental risks to sustaining long term project results?			
Impacts: Are there indicators that the project has contributed to. Or enabled progress towards, reduced environmental stress and/or improved ecological status?			

1.3 Data Analysis Methods Used

Data analysis was achieved through **qualitative and quantitative** methods including triangulation (confirmation of impacts/results through comparison of data from different sources). In conducting data analysis the consultancy team was guided by the standard evaluation criteria of relevance, effectiveness, efficiency, sustainability and impact of the project.

In addition to assessing progress towards project objectives the Terminal Evaluation was guided by the **standard evaluation criteria** of relevance, effectiveness, efficiency, sustainability and impact of the project. In analysing project relevance, the Consultancy team evaluated how the project relates to the main objectives of the GEF focal area, and to the environment and development priorities at the local, regional and national levels.

Project **effectiveness** was measured through assessing the extent to which the expected outcomes and objectives of the project have been achieved.

In evaluating project **efficiency** the main question answered was whether the project was implemented efficiently, in line with international and national norms and standards.

In addition to the above evaluation criterion, the project **impacts** were also evaluated through tracking the indicators of progress towards the end of project targets in the project Logical Framework. Impacts are usually realised over the long term so the evaluation made use of the REToI approach to assess progress towards the generation of impacts. Indicative impacts were assessed through measuring progress towards reduced environmental stress and/or improved ecological status.

Finally, the evaluation measured the potential for **sustainability** of project results with a focus on the post-project phase. Aspects assessed included financial, institutional, social and environmental sustainability.

1.4 Structure of the evaluation report

This Chapter introduces the purpose of the TE discussing the purpose of the evaluation, methodology, data collection and analysis as well as the expected findings. In Chapter 2 this report introduces the project context, the problems that the Project was developed to address, and the key stakeholders. Chapter 3 sets out the main findings of the TE, the Project design, and concludes with an assessment of progress made towards Project Objectives. The final chapter, Chapter 4, provides the conclusions and recommendations of the TE. Chapter 5 presents the Annexes to the evaluation report.

2. Project development context and description

2.1 The Development Context

The Kingdom of Swaziland is a small land locked country covering 17,364 square kilometres bordering South Africa and Mozambique. The country is divided into four administrative regions namely, Hhohho in the north, Manzoni in the centre of the country, Shiselweni in the south and Lubombo in the east. Swaziland has a population of 1.3 million people of which 53% are women.

The country's political system is headed by a constitutional monarchy and a parliamentary system which is responsible to the King. The traditional leadership system is represented by fifty-five (55) Tinkhundla and three hundred and eighty five (385) Chiefdoms which exercise authority over land and other resources on behalf of His Majesty and the Swazi nation.

Swaziland is classified as a Lower Middle Income country with a per capita GDP of $3,500 and a GDP of $6.259 billion. Despite this classification, Swaziland still faces a number of serious development challenges which have been summarised in the United Nations Development Assistance Framework (2016-2020) as:

- slow economic growth;
- high levels of inequality and poverty;
- high unemployment rates especially amongst the youth;
- high incidence and prevalence of communicable (HIV and TB) and non-communicable diseases in the face of health system constraints;
- high maternal mortality;
- high levels of chronic malnutrition;
- increasing number of vulnerable households;
- limited research and technical capacity to generate timely and quality data to inform integration of risks and climate change adaptation and;
- capacity constraints to effectively implement pro-poor development policies and strategies at high level decision making level and for the uptake of development innovations at community level.

Swaziland's economy is predominantly agro-based with 77% of the population residing in rural areas and deriving their livelihoods from subsistence agriculture. The poverty level is estimated at 63% with high income inequality. Unemployment stood at 47.1% for the overall population in 2013 with youth and women more adversely affected by unemployment. Rural households involved in subsistence farming activities are the poorest. Poverty is closely correlated to the extent of food security mainly due to unsustainable farming techniques, low rainfall and limited arable land. The effects of climate change manifested in chronic droughts have significantly constrained the rural populations who are largely dependent on agriculture.

The Government's *National Development Strategy* (NDS) which is implemented through three year rolling National Development Plans provides the overarching national development framework for Swaziland. The NDS focuses on improving the standard of living of the people of Swaziland through poverty eradication, employment creation, gender equality and environmental protection. The Government developed and adopted the *Poverty Reduction Strategy and Action Programme* (PRSAP, 2006-2015) to serve as a critical means and guide to realize the national vision and attain MDGs. To strengthen the implementation of the PRSAP, a Sector Wide Approach (SWAp) was adopted and piloted

in the planning and budgeting process in four priority sectors namely; agriculture, education, health and water & sanitation. The SWAp approach has added value in terms of improving coordination of development partners, reducing duplication of efforts, streamlining resources with good examples in Health, Education and WASH.

2.2 Problems that the project sought to address

Climate change is increasingly influencing weather patterns in Swaziland with increasing frequency and intensity of floods and droughts impacting negatively on the country's economic growth. Cyclonic activity is becoming more violent as evidenced by Cyclone Domoia in 1984 which caused extensive damage to infrastructure and affected an estimated 400,000 people. Cyclone Eileen of 2000 which affected the whole of Southern Africa was another example of increasingly unpredictable weather patterns. The droughts of 1989 and 1992 for example had serious impacts on community livelihoods with up to 250,000 requiring outside assistance with food. Up to 20% of the national cattle herd was lost to the drought in 1992. It is estimated that there has been a 70% reduction on the production of maize across the country since 2000 due to erratic rainfall. Food shortages caused by the current El Nino effect have affected more than half of the population of Swaziland.

Community consultations during the Terminal Evaluation field visits revealed that the year 1992 marked a turning point in changed rainfall patterns in Swaziland with less water available for potable use and for most economic activities including hydro-power generation and subsistence agriculture. Traditional responses to poverty in the rural areas of Swaziland have comprised of high water intensity agricultural activities like the production of sugar cane through large government sponsored schemes implemented through the Swaziland Water and Agriculture Development Enterprise (SWADE) in the south of the country. With climate change, it is becoming increasingly apparent that these schemes cannot continue to operate at the envisioned scale due to water shortages. These changes have made the introduction of climate change adaptation strategies an imperative for Swaziland.

Increasing temperatures are likely to result in changes in the distribution and transmission profiles and increased susceptibility of the human population to diseases such as malaria.

As indicated in the First National Communication to the United Nations Framework Convention on Climate Change (FNC-UNFCCC 2002) ecosystem resilience and productivity are likely to be adversely affected below stream flows and low soil water content. The net effect of this will be changes in the geographic distribution of plants and the spread of alien invasive species over most of the country. It is predicted that up to half of the nation's grasslands and Lebombo bushveld will be lost by the end of the century due to climate change.

Swaziland shares the Incomati, the Usuthu and the Maputo river systems with South Africa and Mozambique. With increasing water shortages, it is now critical that the country engages with her neighbours and develop management systems that will promote sustainable utilisation of these shared waters.

An over-arching problem that affects Swaziland are the capacity limitations for water resources management which have been extensively documented. These relate to limitations at the decision making level in the development of appropriate policies and programmes to address the implications of climate change as well as limitations in the technical, financial and infrastructure capacity to uptake and assimilate new innovations for responding to the spectre of climate change at the river basin and community level.

2.3 Project Description and Strategy

2.3.1 Immediate and development objectives of the project

The majority of the population of Swaziland resides in the rural areas where they are primarily engaged in rain fed subsistence agriculture for their livelihood. With predicted water shortages due to the predicted impacts of climate change the vulnerability of these farmers is expected to come into sharper focus. It is because of this that the ***Adapting National and Transboundary Water Resources Management in Swaziland to manage the expected impacts of climate change (CC-A)*** project was developed with the goal to adapt water resources management in the country to this reality. The objective of the project was to promote sustainable and equitable Integrated Water Resources Management. The project was originally designed to access funding from the GEF Strategic Priority on Adaptation (GEF-SPA) under the International Waters Focal Area hence its original focus on inclusive national dialogue without the implementation of practical on the ground examples of adaptation. By the time of project mobilisation in 2010, SPA funding had been exhausted. This meant that the project had to be redesigned to be able to access Special Climate Change Fund (SCCF) resources as a climate change adaptation project. This resulted in the revision of Outcome 2 of the project to include the implementation of pilot projects on the ground (See Table 1).

Table 1: Changes in Project Focus

Expected Outcomes at PIF	Expected Outcomes at Project Document
1. Informed and inclusive national dialogue around vulnerability to climate change and water allocation in Swaziland among productive and domestic uses.	Institutional capacity for climate change adaptation strengthened through the integration of climate change risks into national water resources management policies and the establishment of inter-sectoral coordination mechanisms based on inclusive and informed dialogue.
2. Climate change risk management integrated into the implementation of national policies and programmes to promote adaptation on a wider scale.	Climate change risk management measures integrated into national water and agricultural programmes and implemented in pilot projects to promote adaptation on the ground
3. Negotiations on Transboundary water management for the Incomati and Maputo river basins informed by climate change risk analysis	Negotiations on Transboundary water management for the Incomati, Maputo and Umbeluzi river basins informed by climate change risk analysis.

The Government of Swaziland, with support from UNDP Swaziland, developed the Adapting National and Transboundary Water Resources Management in Swaziland to Manage the Expected Impacts of Climate Change project which proposed the following solutions to the problems discussed above:

- Strengthening institutional capacity for IWRM in the context of climate variability and change;
- Integration of climate risks into local, national and regional plans and legislation that affect IWRM;

- Strengthening local capacity to successfully respond to climate change risks affecting water resources and agricultural production; and
- Restoration of degraded ecosystems, including forests, to improve water supply and quality.

The goal of the project was to ensure that the management of Swaziland's water resources is adapted to take into account the anticipated impacts of climate change. To this end, the principles of Integrated Water Resource Management (IWRM) were used within the project, and importantly, climate change risks were incorporated into this management approach. To facilitate this process, national dialogue forums between a wide-range of stakeholders from different sectors were promoted. In addition, information generated and lessons learned from pilot-scale adaptation measures funded by the project, assisted policy implementation for effective adaptation planning and climate risk management in the water sector. These adaptation measures were focused on improving access to water in rural communities using two methods, namely: i) piloting improved land-use practices that increase rates of water infiltration into soils; and ii) introducing rainwater harvesting techniques. It is expected that such measures will have the long-term effect of recharging groundwater levels and increasing surface flow in rivers and streams during the dry season as well as providing communities with improved access to water for both irrigation and drinking purposes. Additionally, by piloting such adaptation measures, communities will be better equipped to manage climate risks. Lastly, the TPTC was trained to ensure that climate change risks are an integral part of discussions on trans-boundary river management with neighbouring states.

The project objectives was to be met through the implementation of projects under three inter-related Outcomes, namely:

Outcome 1: Institutional capacity for climate change adaptation strengthened through the integration of climate change risks into national water resources management policies and the establishment of inter-sectoral coordination mechanisms based on inclusive and informed dialogue.

Outcome 2: Climate change risk management measures integrated into national water and agricultural programmes and implemented in pilot projects to promote adaptation on the ground.

Outcome 3: Negotiations on transboundary water management for the Incomati, Maputo and Umbeluzi river basins informed by climate change risk analysis.

The following were identified as principal stakeholders that the project worked with:

- the Komati Basin Water Authority (KOBWA),
- the Ministry of Agriculture (MoA),
- the Ministry of Tourism and Environmental Affairs (MTEA),
- the National Climate Change Committee (NCCC),
- the National Disaster Management Agency (NDMA),
- the National Meteorological Services (NMS),
- the National Water Authority (NWA),
- UNDP Swaziland Country Office and the Africa Regional Office in Addis Ababa;
- Swaziland Water and Agricultural Development Enterprise (SWADE),

- the Swazi delegation to the Joint Water Commissions (JWC), and the Swazi delegation to the Tripartite Permanent Technical Committee (TPTC).

Each of these is represented on either the Project Board (PB) or the Technical Project Committee (PTC).

In addition, the Project document identifies the Ministry of Tinkhundla Administration and Development (MTAD), Ministry of Health and Social Welfare (MoH), Ministry of Education and Training (MoET), River Basin Authorities (RBAs), Swaziland Environment Authority (SEA), Tinkhundla (the traditional local governments in rural areas), University of Swaziland (UNISWA), NGOs, River Basin Authorities (RBAs) Water User Associations, the Private sector (mainly the sugar industry), pilot schools and Neighbourhood Care Points as stakeholders under the project.

3. Evaluation Findings

3.1 Project Design / Formulation

As discussed in Section 2, above the Adapting National and Transboundary Water Resources Management in Swaziland to the Expected Impacts of Climate Change was designed to respond to what was increasingly becoming an issue of national concern-water shortages due to climate change and their implications for poverty and reduced economic growth. Although Swaziland had developed a National Development Strategy and was in the process of developing sector specific policies in the water and agriculture sectors these efforts were not coordinated and did not take into account climate risks which were all too obvious following weather events such as droughts and cyclones which continue to ravage the country. The design of the project to focus on inter-sectoral coordination and dialogue through Outcome 1 is therefore adjudged to have been appropriate as a response to climate change in Swaziland. The Project Document provides a very sound logic to the project and links it to relevant issues with respect to climate change and national development priorities.

Climate change is identified as an issue that will continue to affect all sectors of the Swazi economy and all social groups therefore requiring coordinated approaches to its management. With the economy of Swaziland being principally agro-based, with more than 70% of the country's population engaged in subsistence rain fed agriculture, the project design, through Outcome 2, correctly focuses on climate change adaptation strategies rather than mitigation strategies. In this respect, it is important to note that even the large scale agricultural enterprises in the country have started adapting to increased water shortages by diversifying their production to include crops which require less water.

Given the low capacities for policy and project design and uptake in Swaziland, the adjustment of the project to focus on pilot demonstrations of adaptation activities has yielded lessons that have shown that adaptation to climate change is possible across the board.

While the link to transboundary water resources management under Outcome 3 might, at face value, appear nebulous, it is important to note that the project has ably demonstrated the need for Swaziland to understand her international obligations with respect to shared international waters. Vulnerability assessments which have been conducted in Swaziland have provided useful background data that the country has used in defining its short term, medium term and long term strategies for engaging in dialogue for transboundary water resources management. Adaptation strategies adopted at this scale will also be useful for designing responses at national level. Project design and formulation are therefore adjudged to have been correctly focused.

As highlighted in Section 2 of this report, project design was adjudged to be logical as it addressed critical issues that had implications for national development. Strengthening institutional capacities for multi-sectoral coordination and dialogue will go a long way towards effective project implementation.

a) Assessment of Indicators

As observed in the Mid-Term Review of the project, there is some confusion with regards to the Indicators proposed for measuring progress with project implementation with some of the indicators being the same as the end of project targets. Some of the targets under Outcome 2 could have been used as Indicators instead (Targets 2.3 and 2.4). The evaluation team's assessment is that the indicators developed for the project were not SMART. Despite this confusion however, the project has used the Logical Framework as a project implementation tool and managed to capture the results reported in the Annual Project Implementation Reports.

b) Risks and Assumptions

A Risk Analysis was conducted at project design stage. However it is the view of the Evaluation Team that the exercise could have been more robust. For example, in addition to government remaining committed to taking on board the implications of climate change into their planning processes the project could have also highlighted the risk of government not possessing the technical or financial capacity required to take over the management and implementation of the project after close out. An additional risk that could have been highlighted was that of limited project management capacity at community level which has implications for the maintenance of the structures funded by the project after it is closed.

The Project Exit Strategy has identified and recommended entities that will be expected to take over project elements that will require continued support beyond the project life span but there was no clear indication that these programmes will indeed be inherited and supported at the same level as is currently happening under the project. Provision of support through conventional government systems will not sustain these initiatives for very long. A clear difference between project based management systems and those found in government is that of the pace of decision making and disbursement of resources when these are required. The results achieved through the project are largely due to the quick turnaround in responding to community needs that was possible through the Project Management Unit. In all likelihood, this will not be possible through government unless a dedicated unit or focal person is identified and appropriately resourced to manage the project. Training in basic project management for beneficiary community groups will also be required to ensure that the gains achieved through the project are sustained into the future.

c) Lessons from similar projects in the sector

The project under review was preceded by projects such as the Komati Downstream Development Project, the Lower Usuthu Smallholder Irrigation Project and the associated Lower Usuthu Smallholder Irrigation Project (GEF) project all of which promoted capacity building and training of smallholder and subsistence farmers on various aspects of agricultural development. The current project used lessons learned in community mobilisation and local level planning at design stage and used these lessons to develop the strategy for mainstreaming climate change into local development plans.

d) Stakeholder engagement

Stakeholder participation was a running theme in the development of the project. At government decision making level, the project design team held meetings with representatives of all the institutions that are highlighted as stakeholder representative entities to obtain their views on the elements that needed to be

included in the project. Stakeholder consultation was also maintained through the project inception phase where stakeholders were involved in the definition of the criteria for use in the selection of community groups to participate in the pilot activities. Records of these interviews and meetings held with various stakeholders are included as Annexes to the Project Document.

The project started by selecting pilot locations for demonstrating the various elements including sand dams, rainwater harvesting and ecosystems restoration. It is intended that the results from these pilot sites will then be replicated to other community groups in the country. Successfully implemented projects would attract interest from other communities living under similar conditions at regional and global level. In this connection it is important to note that the project itself is a result of replication from experiences gained from implementing similar activities in Kenya. Community representatives from Kenya worked with Swaziland communities in building sand dams through which community level capacities were exchanged. Capacity enhancement in government entities will also strengthen the likelihood of replication at national level through government extension workers promoting the implementation of project elements in other parts of the country. Immediately following the Terminal Evaluation Mission, the project received a request for them to host a bench marking visit from the Botswana Department of Water Affairs who are also planning to implement a similar initiative in the dry regions of the country with support from the Green Climate Fund. Water harvesting technologies introduced to local schools have had such huge impact through improving school attendances due to reduced incidents of illness among pupils. Schools with adequate water supplies have also been able to attract qualified teachers. It is expected that these benefits will be translated into better performance in school work by the school pupils. The evaluation recommends that the engagement of stakeholders that has been a running theme throughout the implementation of this project should be supplemented by training in project governance and management to enhance local level project management capabilities without which the project's achievements will not be sustainable.

Already the European Commission has pledged enough resources to up-scale water harvesting to sixty (60) primary schools across the country through a collaborative arrangement between this project and its own Improvement of Integrated Water Resources Management in Swaziland Project. The United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA), through its Emergency Grant Fund, has also provided funding to up-scale the water harvesting projects to ten (10) clinics and an additional ten (10) schools across the country, while fifty more sites are targeted for support through the Central Emergency Relief Fund.

e) Role of UNDP

Project design and implementation have been facilitated by UNDP Swaziland Country Office. As an implementing Agency for GEF SCCF, UNDP is well placed to provide this type of assistance. The principal role of UNDP globally is to help member countries with the development and implementation of Poverty Reduction Strategies. UNDP have the comparative advantage of being apolitical and possessing the appropriate convening power without beneficiary countries feeling like their sovereignty is at stake. The organisation's global reach also facilitates the tapping of a broad range of expertise to provide technical advice to such initiatives. UNDP also has the ability to mobilise resources for supporting national entities embarking on programmes of this nature.

In conclusion it is important to note that the Adapting National and Transboundary Water Resources Management in Swaziland to the Expected Impacts of Climate Change is not an isolated initiative in the country. The point has already been made that the project learned lessons from projects such as LUSIP and LUSIP-GEF which are still on-going. The project's focus on climate change adaptation has now been adopted by large entities like SWADE as they look to diversify their production systems in the face of increasing water shortages. The adoption of the Sector-wide Approach to project implementation by

Swaziland has also provided scope for this project to influence approaches to project planning and implementation across a lot of sectors. The PMU has initiated contact with other donors such as the European Commission (EU) and International Fund for Agricultural Development (IFAD) with a view to supporting initiatives aimed at up-scaling the interventions supported by the project as was recommended by the Midterm Review.

f) Implementation Arrangements

Project implementation was advanced through standard UNDP national execution implementation arrangements with the Department of Water Affairs (DWA) under the Ministry of Natural Resources and Energy (MNRE) as the national focal stakeholder. High level policy decisions and guidance on project implementation were provided by a Project Board. A Project Technical Committee (PTC) was also established to provide technical guidance and quality control. Day to day management of project implementation was handled by the Project Management Unit (PMU) headed by a Project Manager assisted by a Finance and Administrative Officer. The PMU also received intermittent project management support from a home based Technical Advisor.

3.2 Project Implementation

Project implementation has been guided by the Project Board with the Project Technical Committee providing technical guidance over the life of the project. It has already been observed that the project design was changed at the stage of developing the Project Document to focus on the implementation of pilot project activities for the demonstration of climate change adaptation strategies. This was done when the project design was refocused to enable the project proponent to access resources from the Special Climate Change Fund. No further changes were made to the project design or outputs after the mobilisation stage or during implementation. This change in the design facilitated the front-loading of the implementation of demonstration activities ahead of policy development activities. The results generated from these pilot projects have in the end influenced the development of policies in the water and agricultural sectors that promote the mainstreaming of climate change adaptation into development planning in Swaziland.

Although there have been a number of other initiatives with a climate change dimension implemented in Swaziland, the Adapting National and Transboundary Water Resources Management in Swaziland to Manage Expected Impacts of Climate Change was the first comprehensive national effort to attempt to bring together disparate entities to address this phenomenon in a coordinated manner. The progress made with this can be directly attributed to the management and leadership provided by the Project Management Unit.

The PMU and the MNRE/Department of Water Affairs had only a few staff working on the CC-A project despite this being a large and complicated project. To ensure that this large initiative got off the ground, the PMU engaged other implementation support entities such as the Ministry of Agriculture, and research organisations like the University of Swaziland (UNISWA) to implement some aspects of the project. The Ministry of Agriculture for example assisted with reviewing the outputs of the Crop Diversification Study that was conducted to assess the feasibility of introducing new crop varieties to the farmers as a way of promoting adaptation to the changing weather patterns which have adversely impacted productivity levels of traditional crops such as maize. The Hydrology Department of the University of Swaziland was contracted to conduct a Climate Change Vulnerability Study for the country which produced a very useful baseline on the possible impacts of climate change on programmes and projects from various sectors of the national economy. The membership of both the Project Board and the Project Technical Committee

was also structured so as to facilitate the provision of both technical and administrative support to the PMU. Specific examples of this were representation from SWADE and the National Water Authority (NWA) and UN agencies such as UNICEF which support operations in the field. These partnership arrangements enabled the project to deliver the impressive outputs that are discussed in Section 3.3 below. At the project site level, the project strategically recruited beneficiaries including women and the representatives of the traditional authorities to join project implementation committees. The support offered by the representatives of the traditional authorities went beyond just sitting as members of the committee to include the allocation of land for the implementation of productive activities around project installations such as sand dams.

3.2.1 Monitoring and Evaluation

The project designed a Monitoring and Evaluation Framework for use in tracking progress with project implementation at the design stage. Periodic monitoring was provided through project site visits by both the PMU and UNDP against which Mission reports were produced with recommendations on how to improve project implementation. Annual Project Implementation Reports were produced for 2013, 2014, 2015 and 2016.

The intermittent home based Technical Advisor provided for in the project design also provided advice on project implementation even though she did not visit the project as often as had been anticipated. The support she provided involved:

- developing ToRs for project assignments;
- reviewing consultant profiles and advising the Project Manager and principals at UNDP Swaziland Country Office in selecting appropriate consultants for project assignments;
- guiding consultants during the conduct of the many assignments managed by the project;
- reviewing and guiding the revision of draft reports to ensure that they meet reasonable standards;
- providing technical and scientific information to the PM, including links to new science on Climate Change projections for Southern Africa.

Project design also provided for both Mid-term and Terminal Evaluations of the project. The Mid-term evaluation was conducted, as scheduled, in 2014 while this report details the findings and recommendations of the Terminal Evaluation.

The assessment of the evaluation team was that the design of the project monitoring and evaluation was **Successful (S).**

As stated above, project implementation was effectively monitored by the PMU and UNDP with the requisite reports produced on time and on schedule. Implementation of the Monitoring and Evaluation system was therefore **Successful (S).**

Overall the Evaluation Team adjudged project monitoring and evaluation to have been **Successful (S).**

3.2.2 Financial Management

Total Project Finances are made up of funds secured from SCCF and the total realised co-financing.

Table 2 below summarises total project finances that were available under the project.

Table 2: Total Project Financing

Funding Source	Amount (US$)
SCCF	1,670,000
UNDP Country Office	200,000 (TRAC 1)
Co-Financing	
UNDP	1,260,000
KOBWA	34,000
Government of Swaziland	4,530,900
Total Financing	7,494,900

Project Finances have been handled efficiently with expenditures at the time of the Terminal Evaluation standing as reflected in Table 3 below.

Table 3: Project Budget and Expenditure per Outcome: 2012-2016

Year	2012		2013		2014		2015		2016	
Project Outcome	**Budget**	**Expenditure**	**Budget**	**Expenditure**	**Budget**	**Expenditure**	**Budget**	**Expenditure**	**Budget**	**Expenditure**
Outcome 1	37,841	33,990	288,452	129463	32,174	32,038	17,520	13,430	10,000	6,018
Outcome 2	37,543.5	-	23,567	15616	675,746	682,953	248,600	240,500	30,000	18,800
Outcome 3	1,050	-	8,014	97,622	4,900	4,674	163,000	175,500	30,000	8,900
M&E	-	21,818	-	-	56,450	56,313	-	-	45,000	20,755
Project Management	16,100	4,533	97,436	97,622	121,607	132,606	472,800	449,500	30,000	17,500
Total	92,535	60,342	47,440	43,566	946,944	964,543	476,500	474,450	145,000	71,900

Expenditure Summary:

Total UNDP (TRAC 1) Disbursed: US$118,209.19

Total SCCF Project Disbursed: US$ 1,631,162.30

Total Expenditure for CC-A Project: US$ 1,749,371.49

Balance at 30/06/2016: US$120,628.51

Note: Budget and Expenditure figures have been rounded off to even out exchange rate fluctuations between that ranged between 1US$: 8.8 and 1US$:15. These figures are correct as at 30 June 2016 (ATLAS, UNDP Swaziland Country Office).

As discussed under project management arrangements for the project, UNDP and the Department of Water Affairs played a pivotal role as Project Executives on the Project Board. Financial disbursements were made on time as were approvals for project activities. The Project Manager and his team who were based at MNRE/DWA operated as an extension of the UNDP Country Office which expedited project implementation despite the capacity limitations in national organisations such as the Department of Water Affairs as indicated above. Project execution by the Implementing Agency is rated **Highly Successful (HS)**

Within the DWA, the Project Manager also found an effective partner in the person of the Director of Water Affairs who did all that was required to facilitate project implementation. A particularly notable contribution to the project by DWA is in the amount of co-financing that the department was able to mobilise from other government agencies in support of project implementation. Out of the government commitment of US$ 4,530,900 as co-financing reflected in the Project document a total of US$ 3,826, 165 (84%) was realised by June 30, 2016. DWA was able to mobilise support from the Ministry of Agriculture which supplied the earth moving equipment which was used in the construction of sand dams, the Department of Geological Services for support to groundwater mapping, the Ministry of Education and Training as well as SWADE. KOBWA also contributed to the project objectives through the provision of technical support and the development of an emergency preparedness plan around Maguga Dam. Finally UNDP-CO provided co-financing in cash and in-kind which was used to pay PMU staff salaries and to provide technical support for the formulation of the National Climate Change Strategy. Table 4 below shows the details of all the co-financing that was mobilised under the CC-A project. The terminal evaluation concluded that it was because of the ability of the Project Management Team to mobilise such a huge amount of co-financing that the project managed to create the huge foot print that it will leave on the Swaziland community development landscape when it officially closes over the next few months.

The evaluation team noted the thoroughness with which the CC-A project has tracked the co-financing that has been realised over the project life span and the linkages of the financing with specific activities. This should serve as a useful lesson for other projects.

Table 4: Project Co-financing

Co-financer	Committed in Pro-doc (US$)	Delivery as at 30 June 2016 (US$)[1]	% delivered	Description of co-financing activities
United Nations Development Programme – Swaziland Country Office				
UNDP (Cash)	200,000.00	118,209.19	59%	• Payment for PMU staff and for the Terminal Evaluation technical support
UNDP (In-kind)	1,260,000.00	1,350,000.00	107%	• Parallel funding towards the development of the National Climate Change Strategy 2014-18 and the 2015 National Climate Change Policy. • Facilitating Climate Smart Agriculture as a CC-A in rural settings – conversion of 32ha from furrow to drip-irrigation technology. • SWAP uptake by the various sector, MDG monitoring (2012 MDG Report) and the review of the National Development Strategy, Vision 2022.
Komati Basin Water Agency (KOBWA)				
KOBWA	34,000.00	89,968.79	264%	• Technical support and expertise. • Purchase and installation of automated weather stations at Masibekela, Lufafa and Kromdraai for flood monitoring based on developed Emergency Preparedness Plans. • Hosting of the Emergency Preparedness Plan workshop at Maguga Dam. • Undertaking a climate change vulnerability assessment study in June 2015. • Development of the Komati River Basin climate change strategy and action plan • Climate change campaign. • Development of KOBWA Climate Change Strategy.

[1] Source: Project Management Unit

Government of Swaziland and Parastals				
Government of Swaziland	4,530,900.00	3,826,165.00	84%	
Department of Water Affairs		1,825,265.00		• Support expertise, transport, machinery and fuel • Drilling of 8 boreholes in schools with rainwater harvesting system. • Designing systems for rainwater harvesting and monitoring implementation. • Strengthening institutional capacity for the River Basin Authorities (budgetary allocation) • Office space, communication, furniture and stationery for the four years of project implementation • Technical contribution in conducting awareness campaigns in 7 schools installed with rainwater harvesting systems • Provision of protective clothing for project staff • Conference room and facilities for assessments • Authorizing all project payments
Ministry of Agriculture – Land use		800,200.00		• Technical and Support expertise, • Artisans and machinery operators for the construction of sand dams • Transport, Machinery (Dozer, TLB, Dump trucks, Flat deck Trucks, Excavator, Compressors, Drillers, Water pumps, Vehicles) and fuel for the 5 sand dams, 3 fish ponds, 850m contour lines.
Geology Department		30,000.00		• Data collection and analysis of the ground water samples for the development of the ground water map
Ministry of Education and Training/Schools		20,000.00		• Initial review of the curriculum and options for the integration of the climate change issues. • Providing monitoring for rainwater harvesting in 10 schools across the country
Swaziland Water and Agriculture		1,150,700.00		• Complementary climate change integration into the LUSIP-GEF Project (the overall project delivery for 2013 was just over US$800,000.00)

Development Enterprise (SWADE)				• Technical and support expertise.
Communities for 5 sand dams, 10 rain-water harvesting and 1 ecosystem rehabilitation				
Community	No commitment	95,000.00		• 5 Sand dam's construction - labour and man power. • Clearing of Alien and Invasive species in 72 ha and planting of 1,200 trees • Installation of rainwater harvesting in 10 schools
Total		5,479,342.98	**94%***	

*Note: Percentage of the co-financing resources only (without GEF resources)

Despite the full engagement of the Director of Water Affairs in project implementation, the Evaluation Team is not satisfied that the DWA has fully assimilated this project into their own programme even though members of staff from the department participated in most project management activities. As observed in the Midterm Review, the CC-A project has not been fully grafted into the DWA operations and is considered as a separate initiative which is led by the PMU. The project has benefitted from being led by an energetic Project Manager. Despite the complicated institutional terrain over which the project was implemented, the Project Manager drove all aspects of project implementation through his "hands-on" approach and developed strong bonds between himself and project beneficiary communities to the extent that in some localities it looked as though nothing could have happened without his involvement. The project Exit Strategy recommends that the supervision and monitoring of all the five sand dams projects be phased over to the DWA for continued technical support but the evaluation team saw no evidence of active engagement by departmental staff at project site level during the evaluation mission. The Project Manager was recognised as the primary driver of the project activities by community members, most of whom expressed the concern that all that has been gained through the project would be lost if the project was to close out. This lack of direct engagement by the department poses a direct threat to the sustainability of the project results beyond June 2016.

The project provided all the funding for project interventions with beneficiary community members providing labour for the construction of sand dams for example. While a sense of local responsibility for the maintenance of the infrastructure is evidenced by community groups having started collecting fees from beneficiary families it is doubtful whether the amounts that will eventually be collected at each site will be enough for the purpose. Already, ancillary infrastructure like water transfer pipes and livestock watering troughs that were damaged by flooding at two of the five sand dams over the last rainy season remain unrepaired to date. The DWA staff have not engaged the affected communities to repair the damaged infrastructure. This is a red flag!

The rainwater harvesting projects at the ten (10) schools were developed through contractor services which means that most beneficiary institutions do not have the capacity to maintain the infrastructure. This is evidenced by the failure by some school committees to repair pipes and replace taps that have been vandalised by school pupils. The project Exit Strategy recommends that all water harvesting projects be transferred to local management committees which will be supported by DWA and Non-governmental organisations like World Vision. These recommended arrangements need to be formalised to ensure that such support is indeed provided in the post-project era.

Project execution by the Executing Agency is therefore rated **Moderately Successful (MS)**.

Overall, project implementation and execution are rated S**uccessful (S).**

3.3 Project Results

Project results at the Terminal evaluation stage were assessed through the review of project documents including the Project Document, Annual workplans, project implementation reports and monitoring and evaluation reports produced by the PMU and UNDP country office. The Mid-term Review Report was also reviewed to establish the results that had been achieved at that point in the implementation of the project.

The project was implemented through a set of activities aimed at achieving the following three Outcomes:

Outcome 1: Institutional capacity for climate change adaptation strengthened through the integration of climate change risks into national water resources management policies and the establishment of inter-sectoral- coordination mechanisms based on inclusive and informed national dialogue.

This Outcome was to be achieved through three Outputs as discussed below:

Output 1.1: Key scientific knowledge gaps on climate change impacts within the water sector defined, targeted research to fill knowledge gaps carried out, climate change response options identified, and main findings and strategic recommendations disseminated to at least twenty (20) relevant organisations across sectors.

The project has made considerable progress under this Output. Using the situation analysis presented in the Project Document as baseline, the Project Management Unit quickly mobilised to identify climate knowledge gaps and the actions required to fill these gaps. Four studies were commissioned at the very beginning of project implementation to establish the extent of the knowledge gaps and recommend response actions to these gaps. The studies that were commissioned were the Climate Change Vulnerability Assessment of the Water Sector and its Infrastructure in Swaziland; the Groundwater Use within the context of IWRM Framework and General Water Sector Reform; the Crop Diversification: Opportunities and Constraints for the Agriculture Sector in order to Develop Resilience, the Optimizing National Feasibility of Sand Dams in Swaziland and the National Feasibility for Alternative Water Supply Options study.

Scientific knowledge about climate change and its impacts on national development processes was at best sketchy at CC-A project mobilisation. The project commissioned the Climate Change Vulnerability Assessment of the Water Sector and Infrastructure in Swaziland which was conducted by the Hydrology Department at UNISWA. This study has increased knowledge and understanding of the implications of climate change for water resources management especially at national and transboundary basin level and contributed valuable inputs into the Third National Communication to the UNFCCC as well as INDCs. The potential implications of climate change for the development process identified through this study were for the first time incorporated into the revised National Development Strategy of 2014. Government extension workers have also used the findings of the study to explain the recurrent droughts that have affected the country since 1992 to community groups that are participating in the project. These groups can now relate the increasing water shortages to the clear changes in weather patterns experienced to date. This understanding has encouraged rural communities to participate in programmes and projects that seek solutions to this problem.

The Groundwater Use within the context of IWRM Framework and General Water Sector Reform study has produced national groundwater distribution maps which have increased knowledge and understanding of the distribution of groundwater around the country. This increased understanding of groundwater distribution has improved success rates of borehole drilling around the country. The availability of potable water at institutions where borehole water was coupled with rainwater harvesting has also improved dramatically.

Adaptation to climate change might require that communities change long held habits in areas as fundamental as food production systems. While there is evidence that the production of crops like maize and sugar cane are being adversely impacted by increasing rainfall unreliability and reducing water quantities rural communities in Swaziland are still to come to terms with the fact that they might need to adopt new crops that are suited to the changing climatic conditions. The Crop diversification: Opportunities and Constraints for the Agriculture Sector in Order to Develop Resilience study which was funded by the project has unfortunately not resulted in any measurable shift from traditional staple crops to new crop varieties.

The Optimizing National Feasibility of Sand Dams in Swaziland study has perhaps had the most impact on the rural landscape in Swaziland as it has resulted in communities responding to water shortages through the construction of sand dams.

Output 1.2: A set of tailor-made climate change response measures related to national (and trans-boundary) water management identified and integrated into at least three (3) national level policies related to water resources management (e.g. NWP, IWRMP, draft National Climate Change Policy) through a series of national policy dialogue workshops

The policy engagement process under the project was conducted through the review of a number of institutional frameworks through the Water Policy and Other Sectoral Policies in light of Inclusion of Climate Change Impact and Adaptation study. The study was for purposes of finding entry points for integrating climate change adaptation into these national policies. The National Water Policy has been developed and is going through approval processes. The CC-A project provided support for the engagement of consultants to mainstream climate change into the policy. It is therefore expected that the National Water Policy will be sensitive to the implications of climate change when it is finalised.

The project also supported the National Climate Change Committee in the development of a National Climate Change Policy and Strategy which have now been approved by Cabinet.

Output 1.3: Institutional needs for inter-sectoral cooperation identified (through national dialogue - Output 1.2), appropriate national inter-sectoral coordination mechanism clearly defined, establishment/ strengthening of national coordination mechanism supported and capacity of key staff/ stakeholders strengthened through at least three (3) targeted training courses on inter-sectoral coordination

Output 1.3 was aimed at promoting institutional collaboration and coordination in addressing issues of climate change. The project supported the performance of an institutional assessment to identify the institutional technical, financial, legislative gaps which affect inter-sectoral coordination. Recommendations for capacity enhancement including training have been made on the basis of the findings of the assessments. The National Focal Point for Climate Change has taken up these recommendations on capacity building and used them to develop a national capacity building programme on climate change.

There is also evidence of a number of institutions working together on activities that were relevant to the project's objectives. The Ministries of Agriculture and Natural Resources and Energy, for example, coordinated in the selection of sites for sand dams by virtue of their being represented on the Project Technical Committee and the Project Board. Increased collaboration is also evident between MNRE and Ministries of Health and Environment and Tourism in the area of rainwater harvesting.

Inter-sectoral coordination still needs to be institutionalized as a way of "doing work" across related sectors. To advance this, the CC-A project provided support to the DWA for the implementation of a Sector-wide Approach (SWAp) to water resources management. A SWAp Coordinator has been recruited through the CC-A project and is expected to recommend the elements of this approach to water resources management by September 2016. DWA will assume responsibility for this position after that. In summary, progress has been made towards achieving Outcome1 especially with respect to the generation of knowledge to close the capacity gaps that were prevalent across most institutions in Swaziland. There is still work to be done to ensure that collaboration among institutions in addressing issues of climate change becomes standard practice. The overall assessment of the evaluation team is that Outcome 1 has largely been achieved. Accordingly this is rated **Satisfactory (S).**

Outcome 2: Climate change risk management measures integrated into national water and agricultural programmes and implemented in pilot projects to promote adaptation on the ground

Output 2.1: Guidelines for mainstreaming climate change risks into key national policies (NWP, IWRMP, NCCP) developed, toolkits on practical application of climate change response measures (identified through Output 1.2) developed and at least five (5) targeted training courses on toolkit application delivered

Guidelines for mainstreaming climate change into key national policies have been developed as have the toolkits for the practical application of climate change response measures. Stakeholders in the water and agriculture sectors have also been trained in the use and application of the toolkits. The Project Implementation Unit had however not been able to establish whether these guidelines and toolkits were being used in the field by the trainees.

Output 2.2: Programme/ project specific climate change risks and tailor-made response measures identified and integrated into at least three (3) major management/ investment plans implemented in Swaziland (incl. KDDP, LUSIP and CDPs developed under the GEF SLM programme implemented by SWADE).

The climate change vulnerability assessment conducted at the beginning of the project highlighted climate change risks at national level. This influenced organisations like KOBWA and SWADE to review their emergency preparedness plans for Maguga, Mnjoli and Lubovane Dams. In addition, communication has been initiated with the other major investment programmes managed by SWADE to encourage them to factor in the potential implications of climate change into their programme plans. SWADE has developed guidelines for mainstreaming climate change into their community interventions under KDDP and initiated a crop diversification strategy in their irrigation projects to go beyond producing sugar cane and introduce horticultural crops that require less water. The LUSIP GEF project has been up-scaled to national level and will integrate climate change considerations into planning processes at Chiefdom Development Plan level.

Output 2.3: Capacity of key stakeholders and water resources management and/or agricultural development practitioners to integrate climate change risks into their activities strengthened by

incorporating the climate risks/responses measures (identified under Output 2.2) into the ongoing training courses offered as part of ongoing national programmes.

The CC-A project provided support for the review of SWADE CMPs to ensure that they incorporated climate change considerations while SWADE project development and implementation policies were reviewed with a view to incorporating climate change. The content of training courses offered by SWADE have been updated to include at least fifteen (15) climate change modules that were developed through support from the project. In addition training on climate change has been delivered to more than thirty-five SWADE trainers.

SWADE and KOBWA have both developed emergency preparedness plans for implementation in the event of extreme weather patterns. These plans are in place at the country's main three dams.

The project also made efforts to work with the National Curriculum Centre of the Ministry of Education and Training to develop a Climate Change Curriculum for the schools system. However, this intervention has been limited by lack of cooperation by the NCC and has so far not been successful. As recommended by the Midterm Review, this issue is of huge national importance and should be pursued further to ensure that climate change is factored into the curricula of schools and tertiary institutions.

Output 2.4: Community based climate resilience projects implemented in pilot sites, including the installation of rainwater harvesting systems in at least four (4) identified communities/ areas and rainwater infiltration improvement schemes (incl. reforestation) in at least four (4) communities/areas.

Perhaps the most successful programme intervention under the CC-A project was the demonstration of climate change adaptation projects in pilot sites in the form of rainwater harvesting and the construction of sand dams.

Rainwater harvesting systems have been installed at ten (10) schools in the three river basins. In most of the cases the impact of these installations has been dramatic with school attendances rising due to reduced illnesses among pupils due to access to clean water. The ability of school committees where these investment have been made to recruit qualified teachers has also improved. The evaluation team however identified problems with the governance arrangements at some of the pilot sites where school committee representatives had not assumed full control of this intervention. Some committees still expect the CC-A project to continue supporting them with maintenance and management of the project. This is a situation which will negatively impact the sustainability of rainwater harvesting. Having said that though, it is important to mention here that during the Terminal Evaluation field mission the CC-A Project Manager was approached by the Project Manager of the EU-funded Improvement of Integrated Water Resources Management in Swaziland Project with a proposal for collaboration between the two projects which will up-scale the water harvesting initiatives to 60 schools across the country. In addition the United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) through its Emergency Grant Fund, has also provided funding to up-scale the water harvesting projects to 10 clinics and an additional 10 schools across the country, while 50 more sites are targeted for support through the organisation's Central Emergency Relief Fund (CERF).

Although **sand dams** have been constructed at only five (5) sites in the dry south and east of the country, demand for these structures from other communities has increased to a point where the DWA now needs to consider institutionalising this approach to adaptation to climate change as a major programme in their operational workplan. In keeping with local traditions, no-one can be denied access to water. Community groups from as far as ten (10) kilometres from some sand dams are driving their livestock to these "life points" and enquiring as to how they too can access the technology for implementation in their own

localities. This is of particular importance in a country where livestock rearing constitutes an important aspect of rural livelihoods. Spreading this technology to more areas in the lowlands of Swaziland will reduce the huge livestock losses that have been experienced by local communities in recent years due to recurring droughts.

During the site visits to three sand dam sites, community members testified to the impacts these structures were having on their livelihoods. 'Rivers that only had water for a few weeks following the end of the rainy season are now providing water through most of the dry season'. Although the sand dams have only been in place for one season, community groups which have benefitted from this technological innovation have seen their fortunes turn even if the water is currently only suitable for watering livestock. All communities visited are hopeful that these dams will mature and filter the water to a level of quality suitable for human consumption. This technology is still new and will require to be backed up by intensive training of government extension officers to enhance their capacities for supporting community groups as well as training of community members in infrastructure maintenance, project governance and community self-reliance. Such training will ensure that beneficiary communities can stand on their own in the management of these projects and only call on government for assistance with issues they cannot handle at local level. An issue that requires urgent attention is the need to keep livestock out of the impoundment areas of sand dams to reduce the faecal contamination of the water which is now a major problem at all the sites visited during the terminal evaluation. Consideration should be given to fencing these sites off to keep livestock out.

In response to the impacts of climate change on **ecosystems integrity,** the project piloted an ecosystems rehabilitation project at Mkhiweni Inkhundla. The intervention includes the management of alien invasive species, promoting infiltration of water into soils, reforestation and a demonstration of benign extractive activities in the form of beekeeping, aquaculture and a vegetable garden that participating community groups could engage in with a healthy ecosystem. Unfortunately this project has not taken off as expected due, in the main, to community governance issues. The CC-A project has recommended that oversight of the various aspects of this project be handed over to NAMBOARD and World Vision working closely with the Ministry of Agriculture (MOA) and the DWA. Draft Memoranda of Understanding (MOU) have been developed between NAMBOARD and the Mbelebeleni Community for provision of technical advisory services for the nursery and vegetable production components of the project. The MOA will support the aquaculture and beekeeping components while World Vision will support the community development efforts as well as financial management and community governance issues with this community.

The evaluation team's assessment is that **Outcome 2** has been achieved and rates it **Highly Satisfactory (HS).**

Outcome 3: Negotiations on trans-boundary water management for the Incomati, Maputo and Umbeluzi river basins informed by climate change risk analysis.

The link between Outcome 3 to the first two Outcomes has been questioned, with the Mid-Term Review stating that the "connection between Outcome 3 and the other two Outcomes is not clear, and there is a disconnect between actions at the community level (under Output 2.4) and actions at the national level. It is not clear how this piloting will contribute to Outcomes 1, 2 and 3". The findings of the terminal evaluation are that the project is properly linked with all the elements leading to the project objective which is **"to promote the implementation of national and transboundary integrated water resources management that is sustainable and equitable given expected climate change".** The creation of an enabling policy environment for integrating climate change measures into water resources management

will facilitate the uptake of the interventions that are being demonstrated through the pilot projects under Outcome 2. When these are adequately replicated across the country, Swaziland's water resources management will be managed in a manner that adequately takes into account the impacts of climate change. Armed with this capacity, the country's representatives to the TPTC will be able to present Swaziland's water needs which are informed by comprehensive climate change risk analysis. With a clear understanding of the implications of climate change on its national water resources Swaziland will also be able to influence the other two countries to adopt similar planning processes thereby resulting in climate resilient transboundary water resources management in the three shared river basins.

What is still an issue though is whether the current project was the correct vehicle to advance this dialogue or whether the project took on more than it could deliver over a four year period.

Output 3.1: Climate change impacts on trans-boundary water resource management (TWRM) and negotiation options assessed, tailor-made (short-, mid- and long-term) TWRM strategy paper for Swaziland developed through consultations with key stakeholders (as integral part of national policy dialogue - Output 1.2) and position paper for Swaziland TWRM negotiation team(s) jointly developed (with negotiators).

The CC-A project has gone a long way towards building national capacity for negotiating on the management of water resources at the transboundary scale. The Climate Change Vulnerability Assessment Study enhanced the understanding of the relationship between water resources and climate change in Swaziland. The study findings were used as guidelines for the Modeling of Komati, Mbuluzi and Usuthu River Basins (Optimal Solutions, 2015) study which was supported by the CC-A project. This study assessed eight water availability scenarios with the conclusion that climate change had an influence of water availability. However, although there was going to be water scarcity in the three shared basins in the medium to long term, this was more likely to be caused by increased demand than by climate change.

The CC-A project also supported the production of the Water Resources and Climate Change Strategy: Monitoring National Water Resources in Swaziland to 2050 Against a Backdrop of Climate Change Paper (UNDP, 2015) which assessed the recommended sharing of surface water resources among the three (3) countries given the predicted impacts of climate change. This study concluded that all three (3) shared river basins in Swaziland were already experiencing water deficits which would worsen over the medium to long term due to increased demand for water, decreasing rainfall and the effects of climate change.

The project also supported a transboundary water resources mapping project: Feasibility Maps for Alternative Water Supply Options in Swaziland under the Impacts of Climate Change (AFROGEO, 2015) which mapped the national water supply situation in the context of climate change.

The studies discussed above enhanced the understanding of the national water availability and supply situation and the possible impacts of climate change into the future. The understanding of the national water and transboundary water situation was used to develop a Position Paper for use in developing a negotiating strategy for use by the Swaziland delegation to the Tripartite Technical Committee (TPTC) on water resources management in the Komati, Mbuluzi and Usuthu river basins. The Position Paper was developed through consultations with the members of the TPTC.

The results and recommendations from the studies discussed above have all been shared with stakeholders across the river basin associations and at national level. The DWA and the PMU have also presented these recommendations to the Minister of Natural Resources and Energy who is expected to table them at Cabinet. While these studies and reports have yielded valuable information on the water situation in Swaziland, a lot still needs to be done before this information filters into the policy arena. DWA will need

to follow up on this in the post-project era to ensure that the momentum that has been generated to date is not lost.

Output 3.2: Targeted information briefs on projected climate change impacts on TWRM developed and disseminated to senior decision-makers in at least twenty (20) relevant organisations, including key water user groups.

The Terminal Evaluation confirmed that a number of information brochures and Policy briefs which the project has been disseminating to policy makers and the general public. The project has produced brochures explaining the phenomenon of climate change, the concept of and approaches to climate change adaptation, the theory and practice of rainwater harvesting etc. The project had also used the DWA Information Management System as a way of disseminating these products while the Project Management Unit also stated that information had been posted on a Facebook page as well as on YouTube. The Evaluation Team could not verify the reach that had been achieved in distributing these information materials among policy and decision makers but observed that these had been produced late in the project cycle, a point which was confirmed by the Technical Advisor to the project. The Terminal Evaluation team as did the Mid-Term Evaluation team buttress the fact that for a project that has generated such high levels of awareness about a topical issue like climate change not to have produced promotional material like brochures, leaflets and project charts in a timely manner constitutes a missed opportunity for enhanced impact at a variety of levels. It is therefore critical that all efforts are made to ensure that the information and publicity materials that have been developed through the project are properly packaged and disseminated in the post-project era. The recommendation by the Midterm Review for the formulation of a Communication Strategy on Climate Change should be given further consideration as such a strategy will facilitate coordinated dissemination of climate change information across all sectors.

Performance under Outcome 3 which is rated S**uccessful (S).**

Overall the CC-A project was adjudged to have made good progress toward meeting the project objective and is rated **Successful (S).**

In addition to the assessment of the progress made towards the project's objectives, the terminal evaluation also measured the project against the standard GEF criteria of Relevance, Effectiveness, Efficiency and Sustainability as discussed below.

The Project's Relevance to the Situation in Swaziland

The CC-A project was designed to address the major climate change related problems facing Swaziland. The country's economic growth prospects have been adversely affected by this phenomenon. Increasing frequency of floods and droughts has caused reductions in food production while the food production capacities of communities in the country have been damaged by unpredictable weather patterns. Reduced availability of water has also led to the realisation that major agricultural development schemes promoted under the KDDP and LUSIP Projects can no longer be sustained into the future under a "business as usual" approach. This has resulted in SWADE adopting crop diversification strategies and introducing horticultural crops in their production system.

Temperature changes caused by climate change are affecting the distribution of disease profiles with diseases like malaria becoming more widespread. At the same time, reduced water availability and lower soil moisture content have resulted in ecosystem changes and more widespread distribution of alien invasive species.

Swaziland is wedged between South Africa to the west and Mozambique to the east and shares water in the Incomati, Maputo and Usuthu river basins with her two neighbours. Water resources management under these conditions needs to take into account the implications of climate change.

The project also focuses on enhancing capacities for climate change adaptation at all levels in the country.

The Evaluation team's assessment is that the project addresses the problems discussed above all of which have serious implications for the social and economic development of Swaziland. The team rates the project as **Relevant (R)**

Effectiveness of Project Implementation

The CC-A project was designed to ensure that the management of Swaziland water resources is adapted to take into account the anticipated impacts of climate change. The objective was to be met through the generation of knowledge and awareness about the possible impacts of climate change on the water resources of Swaziland. Water resources management was also to be guided by the adoption of the principles of Integrated Water Resources Management (IWRM) and the incorporation of climate risks into policy formulation and management decisions in the water resources sector. Climate change adaptation was piloted at a number of sites around the country as a way of promoting capacities for integrating climate change risks into both national and basin-wide water resources management strategies. The lessons learned from these pilot projects were to be used to prepare position papers and strategies for use by Swaziland in negotiations with her neighbours for the equitable management of shared water resources.

The Results section of this report clearly demonstrates that the CC-A project has gone a long way towards meeting the objectives described above. Knowledge about climate change risks in the water sector has been promoted through targeted research on the vulnerability of the sector to climate change. Work was also initiated on the incorporation of climate change considerations into the Comprehensive Agricultural Policy and the National Water Policy. The sand dam technology and the water harvesting projects that were demonstrated at sites around the country introduced an effective climate change adaptation strategy to increasing water shortages by storing water and making it available for community use for longer than happens under normal conditions. The lessons learned from these initiatives will be useful when Swaziland engages her neighbours to develop approaches to the management of shared water resources.

The CC-A project has therefore been **Highly Successful (HS)** in working towards the achievement of its objectives.

Efficiency

The project was implemented on a grant of US$ 1,670,000 from the Special Climate Change Fund. This is considered to be a modest amount of money when compared to the amount of work that the project set out to deliver on. Community mobilisation and the development of infrastructure such as sand dams, community boreholes and water storage tanks can be expensive operations. The fact that the project can point to five sand dams and ten schools with rainwater harvesting infrastructure is a clear demonstration of cost effective project implementation. This cost effectiveness was also buoyed by the effective mobilisation of beneficiary communities who provided the labour required to install the infrastructure. The CC-A project also introduced an innovative knowledge exchange mechanism by bringing community representatives from Kenya who had worked on similar initiatives to share their experiences with communities in Swaziland. This was a very successful example of South-South cooperation which was

operationalised at a fraction of the normal costs of similar exercises based on North-South cooperation. Efficiency of resource use under the CC-A project was rated **Successful (S).**

The CC-A project is all about mainstreaming climate change considerations into water resources management, education and agricultural policies. Work on the processes promoting this was on-going at the time of this evaluation and will need to be continued beyond the lifespan of the project principally because policy development processes customarily take a long time. Most rural or community development projects deliberately focus on mainstreaming gender, HIV-AIDS mitigation and the participation of the youth and other disadvantaged groups into their implementation strategies. The focus of the CC-A project on water resources provided ample opportunities for addressing all these elements without necessarily mentioning them as project elements. Water is a central natural resource to the development process and management strategies that take into account the implications of climate change will address these cross cutting issues.

Country ownership

The CC-A Project concept has its origins in the Swaziland Environmental Action Plan (1997) and the National Development Strategy (1999) which were developed following the accession of the country to the UNCBD and the UNFCC. The period following these processes has been characterised by frequent floods and droughts which provided evidence to the increasing impacts of climate change. The focus of the water resources sector was because of the central role which water resources play in the social and economic development of the country. The Ministry of Natural Resources and Energy through the Department of Water Affairs was identified as the executing agency for the project with support from related national institutions which are detailed in the stakeholder section of this report. Financial support was sought from the SCCF and disbursed through the UNDP Country Office which served as the Project Implementing Agency. After its mobilisation, the project identified local community groups which acted as the operational vehicles for the implementation of project activities on the ground. The GoS also made sure that the CC-A project was fully integrated into major investments under the KDDP and LUSIP both of which were implemented through SWADE.

It is clear from the above discussion of the project's origins and implementation strategies adopted after mobilisation that this was a project that was developed to address issues that were identified by the country itself as being of national importance. The integration of the project with other major national investments in agricultural development also indicated the extent to which this project was a "home grown" initiative. The CC-A project was therefore a project where there was a high level of country ownership.

Sustainability of Project Results

A critical aspect of project evaluation which is required by GEF is the assessment of the likelihood of the project's results becoming sustainable beyond the project's life span. The potential for sustainability of the CC-A project was assessed with the following results.

Financing for the project in the amount of US$ 1,670,000 was sourced from the SCCF while UNDP and the UNDP Country Office both contributed US$ 1,260,000. KOBWA provided US$ 34,000 as co-financing and the Government of Swaziland pledged an in-kind contribution equivalent of US$ 4,530,900 bringing the total resource allocation to the project to US$ 7,494,900. At the time of the Terminal Evaluation most of the committed funds had been expended on the activities that yielded the results discussed in this report. Most of these results are a "work in progress" which requires additional support either from the project or from government and other entities if they are to transition to impact. The GoS

has committed itself to taking over the oversight and implementation of the activities which have not been concluded during the project's lifespan. Principal among these are the policy development initiatives and the support to institutional strengthening at community level especially at the sand dams. These will be incorporated into the day to day operations of government and financed through national budgetary processes. The GoS is also encouraged to identify on-going projects that are advancing similar objectives to the ones the CC-A project was design to achieve and graft this project onto them. The DWA already hosts the EU funded *Improvement of Integrated Water Resources Management in Swaziland* project which could serve this role. The PMU has also identified NAMBOARD as an appropriate institution to take over the management oversight over the ecosystem restoration project at Malamlela community at Mkhiweni Inkhundla. It is also important to note that the Outputs of the CC-A project have attracted the attention of other possible financing entities with the European Union already discussing the possible up-scaling of the water harvesting initiatives to cover at least sixty schools around the country. The UNDP Swaziland has also expressed the desire to support the GoS with continuing with the initiatives started under the CC-A project. The Green Climate Fund is a potential source for resources to up-scale the CC-A initiative. There is therefore enough interest in carrying forward with the work that has been started through the CC-A project which, if realised, makes Financial Sustainability **Likely (L)**.

The CC-A project was designed to address the potential impacts of climate change on the prospects of social, political and economic development in Swaziland. Decreases in the quantity of water available for crop production and watering livestock as well as for domestic consumption will have telling effects on poverty levels especially among rural populations in Swaziland. It was in response to this realisation that the project was able to mobilise community participation in the construction of sand dams and rainwater harvesting facilities at the pilot sites. The pilot projects have now generated interest among other communities who have approached government for similar investments. Of particular importance is the fact that the replication of these pilot projects will have the effect of mitigating the potential negative impacts of climate change through improving the resilience of rural communities resulting in socio-economic security and sustainability. Socio-political Sustainability under the CC-A project is therefore **Likely (L).**

The institutional framework for water resources management in Swaziland defined in the Water Act. The MNRE, through the DWA, has the overall responsibility for the management of water resources. The Ministry is responsible for international negotiations for transboundary water resources management through the TPTC. At national level the Ministry has established a National Water Authority which is supported by River Basin Authorities in the management of water allocation to water users. The Swaziland Water Corporation is responsible for the distribution of portable water to consumers in both urban and rural areas. Commercial water users require a permit for them to abstract water while domestic water users do not require a permit.

The institutional architecture described above is still in the process of being institutionalised in Swaziland which might constitute a threat to the sustainability of water management initiatives in the country. The gains recorded under the CC-A project will therefore need to be nurtured by the DWA until the new institutions are fully functional. River Basin Authorities are appropriately located to be able to sustain the up-scaling of the rainwater harvesting pilot projects initiated under the project.

The institutional framework for natural resources management in Swaziland is at times misunderstood on account of the role that the royal establishment plays in resource governance in the country. CC-A project has mobilised the participation of the traditional authorities in promoting the pilot projects that have been supported thereby ensuring that water resources management at community level, like that of other natural resources, is guided by the realities of the traditional governance structures that define Swazi

society. This recognition of the role of the traditional leadership will therefore go a long way towards promoting water governance at the local level.

The partnership arrangements which have been established with various institutions in the implementation of project activities are expected to contribute to the sustainability of project results into the future. Rainwater harvesting projects is expected to be institutionalised through the Ministry of Education and Training and the School Committees which manage these initiatives on the ground. The experience at Mbasheni Primary school where the school committee has taken over the repairs and maintenance schedule for the water supply with little input from outside system is a good indicator of the likelihood of sustainability of these activities. DWA has indicated its readiness to take over the management of the sand dams after the project close out. This commitment will need to be supported by the identification of a dedicated unit or person within the department to take over the responsibilities currently being carried by the Project Management Unit. The CC-A project has also promoted the mainstreaming of climate change considerations into the operations of national institutions such as SWADE and KOBWA which have developed emergency response plans around their major infrastructure developments to respond to the likely impacts of climate change.

The natural environment in rural Swaziland is experiencing fundamental changes due to increasing shortages of water. Most rivers have transitioned to ephemeral systems which have flowing water for very short periods of time following the rains. A lot of communities in the south and north of the country are experiencing increasing water shortages as boreholes dry out. This feature has become more pervasive following the El Nino induced drought of 2015/2016.

Most communal woodlands have been cleared of the indigenous vegetation due to rising demand for biomass energy resulting in reduced infiltration of water into the ground. Reduced ecosystem productivity is resulting in reduced crop yields and the spread of alien invasive species.

The CC-A project has introduced initiatives to address these issues, albeit on a pilot basis. Already, the pilot projects are showing positive signs that the trends towards general environmental degradation can be reversed. The sand dams that have been constructed are yielding water which beneficiary community members are accessing for much longer periods through the year. An issue of concern is that the water that is harvested through this technology is unfit for human consumption as most of is polluted. It is however being used to water livestock and by the women to do laundry. Community expectations are that over the long term the water will be purified enough for them to use it for domestic consumption.

The rainwater harvesting projects have been more successful that the sand dams in terms of providing water for human consumption. School children consulted at the schools visited confirmed that they preferred harvested rainwater to borehole water.

The ecosystems restoration project has faced a number of administrative challenges and has not yielded the results that it could have. However, there is evidence of increased infiltration of water into the soils which is evidenced by increased flows of water in associated streams which now sustains the vegetable garden at Mkhiweni.

When the pilot projects are replicated across the country it is likely that the environmental degradation that has been experienced across rural Swaziland will be arrested resulting in positive environmental benefits. The restoration of ecosystems productivity will also have knock on effects on food production and ultimately poverty alleviation in Swaziland. Environmental Sustainability is therefore **Likely (L)** with the implementation of the CC-A project.

Overall, the evaluation team's assessment is that the CC-A project is **Likely (L)** to be sustainable.

Table 5 below summarises project performance against the evaluation parameters discussed above.

Table 5: Project performance against the evaluation parameters

Evaluation Ratings:			
1. Monitoring and Evaluation	Rating	2. IA&EA Execution	Rating
M&E design at entry	S	Quality of UNDP Implementation– Implementing Agency (IA)	HS
M&E Plan Implementation	S	Quality of Execution – Executing Agency (EA)	S
Overall quality of M&E	S	Overall quality of Implementation/Execution	S
3. Assessment of Outcomes	Rating	4. Sustainability	Rating
Relevance	R	Financial resources	L
Effectiveness	HS	Socio-political	L
Efficiency	S	Institutional framework and governance	L
Overall Project Outcome Rating	S	Environmental	L
		Overall likelihood of sustainability	L

Ratings Scales		
Ratings for Effectiveness, Efficiency, Overall Project Outcome Rating, M&E, IA & EA Execution 6:Highly satisfactory (HS): No shortcomings 5: Satisfactory (S): Minor shortcomings 4: Moderately Satisfactory (MS): moderate shortcomings 3: Moderately Unsatisfactory (MU): significant shortcomings 2: Unsatisfactory (U): major shortcomings 1: Highly unsatisfactory (HU): severe problems	**Sustainability Ratings** 4: Likely(L) negligible risks to sustainability 3: Moderately Likely (ML): Moderate risks 2: Moderately Unlikely: Significant Risks 1: Unlikely: Severe risks	**Relevance ratings** 2: Relevant (R) 1: Not Relevant (NR)
Additional ratings where relevant: Not Applicable (N/A) Unable to Assess (U/A)		

Project Impact

The CC-A project has yielded a number of very significant results. Initial work to integrate climate change adaptation into national policies has been initiated under the project while research on the major implications of climate change has been conducted addition to the knowledge base on this phenomenon. The pilot projects on water harvesting have yielded perhaps the most dramatic results with improved availability of water in community areas which had suffered serious water shortages over the years. The project also demonstrated the potential benefits of ecosystems restoration interventions.

While the project has started showing results, it is too early to characterise these as impacts as it is as yet unclear what will happen should the project close at this point in time. Policy developments have not been concluded with the one on curriculum development having completely stalled. Community members who

have benefitted from the project stated that they still required assistance with consolidating the gains achieved so far through additional investments in infrastructure refurbishment and maintenance. School committees running the schools that have benefitted from water harvesting investments also appeared unprepared to take over the management of the installations without support from the PMU.

It is the view of the evaluation team therefore that the project is yet to have measurable impacts despite the impressive results that it has generated to date. Impacts are usually realised over the long term and well after the projects have been closed. It will therefore be important for the DWA to continue supporting the project interventions to facilitate their transition to impacts.

4. Conclusions, Lessons Learned and Recommendations

4.1 Conclusions

Swaziland has been experiencing changes in its weather patterns with increasing frequency of droughts and floods affecting the availability of water across the whole country. The continuously deteriorating trends have resulted in reduced ecosystems productivity and food insecurity for the majority of the country's rural poor. The CC-A project supported research activities which have generated knowledge about climate change and its potential implications for Swaziland's socio-economic development. This improved knowledge and improved understanding of climate change has been used to develop response mechanisms which have been incorporated into national policies that guide activities in the various sectors that underpin food security for the majority of the country's rural poor. Flagship policies that have been influenced to integrate climate change considerations include the national water policy and the national climate change policy. These policy developments have been implemented in tandem with institutional development and strengthening as well as the promotion of inter-sectoral coordination in addressing national and transboundary water resources management.

The most common responses to climate change in agro-based economies is through the adoption and implementation of a variety of adaptation strategies. In line with this the project has supported the development and implementation of a number of initiatives aimed at promoting adaptation to climate change. The findings and recommendations from the research and studies conducted through the project have been used to influence major water users like SWADE to find ways of incorporating climate change considerations into their operations. SWADE has now embarked on a crop diversification programme through which they are now encouraging farmers to produce horticultural products which require less water than sugar cane. In response to the increasingly severe water shortages that community groups face, the CC-A project promoted the construction of sand dams as a means to stem flush floods. The pilot dams that have been constructed have demonstrated that water can be conserved behind these structures for up to six months following the rainy season as opposed to just a few weeks as used to happen before. Beneficiary communities can now water their livestock and irrigate vegetable gardens with the water from these dams. In parts of the country where water tables have dropped and boreholes have dried up, some community members expect that the water from sand dams can be used for human consumption. The use of the water for portable purposes is however still compromised by the high pollution levels caused in the main by livestock.

The project has also promoted the harvesting of rain water from the roofs of buildings at schools and other institutions and storing this water in tanks. So far, ten schools have benefitted from this technology and are able to supply drinking water to pupils for up to six months of the year. Rain water harvesting is usually supplementary to the drilling of boreholes and the installation of electrical power to these

institutions. These developments have had positive implications for school attendance trends and for attracting qualified teachers to beneficiary schools.

Climate change is causing wide spread degeneration of ecosystems due to reduced availability of water. Soil moisture has decreased over large tracts of land resulting in the spread of invasive species. Degraded ecosystems are closely associated with reduced production of staple foods such as maize which is posing a threat to food security among most subsistence farmers in Swaziland. The CC-A project response to this was through a project aimed at promoting ecosystem restoration. This intervention is intended to demonstrate how community members can reverse, or at best, arrest continued loss of soils cover through encouraging infiltration of water into the ground and the removal of alien invasive species. The rejuvenated ecosystems brought about by these interventions are expected to re-establish the foundations for community livelihoods. The rehabilitation of these degraded lands is also promoted through the planting of a variety of trees. The Malamlela community has embarked on such an exercise. Early outputs indicate that ecosystems can be regenerated to start providing the original good and services which human beings depend upon for their survival.

The experience gained from the adaptation exercises discussed above has improved Swaziland's knowledge and awareness of the possible impacts of climate change on the country's water resources. With this improved knowledge, it is expected that Swaziland will be able to climate proof its water resources and increase the resilience of the country's economy. In addition, the country will also be able to engage with its neighbours in the management of shared water resources with the understanding of how climate change is likely to impact on these resources.

The CC-A project has yielded some very impressive results in the four years since it was launched. The activities that have been supported by the project are at various stages of completion with the majority of them still requiring further support to ensure that they can be sustained into the future. The project also covered a wide range of interventions from national policy development through demonstration projects to promoting international cooperation in the management of transboundary water resources management, all on a very limited budget. It is the view of the evaluation team that the coverage of so many issues has reduced the impact the project could have had with a focus on a few areas.

Project management, including financial management has largely been very effective in delivering results. Project finances have been properly accounted for even though there is no evidence of an external audit having been conducted. The Project Board and the Project Technical Committee have both provided guidance to the project while the Department of Water Affairs and UNDP Swaziland have provided the support needed by the PMU to execute its duties. There is however evidence of weak institution building, especially at community level which might threaten the sustainability of the project results if further support is not provided.

4.2 Lessons Learned

A number of useful lessons have been generated from the implementation of the CC-A project. These lessons will be important for the design of similar projects addressing problems and for informing what implementing agencies should do with the results generated to date. These are discussed below;

1. Community groups understand the implications of climate change and they will are willing to participate in projects that address threats to for their livelihoods.

2. Responses to climate change should be guided by national priorities to ensure the participation of all stakeholders.

3. Participatory planning processes promote more long lasting impacts among beneficiary communities. The approach adopted under the CC-A project to involve community groups in the project design and implementation has resulted in community groups at the pilot sites owning the project which bodes well for sustainability.

4. Climate change adaptation needs to be mainstreamed into development planning initiatives at various planning levels for the results from the initiatives to be sustainable over the long term. The integration of climate change adaptation initiatives into County Development initiatives will guarantee the institutionalization of responses to climate change into national development planning.

4.3 Recommendations

Most of the pilot initiatives funded under the CC-A project have started generating results and still require institutional and programmatic support for them to be sustainable. Support is still required for strengthening community project management systems and for repairs to damaged water transfer infrastructure at some sand dams. Institutional strengthening will also be required among some of the school committees managing water harvesting projects. The analysis of the project's finances shows that the project has a balance of US$ 155,000 as at June 2016. These funds have been earmarked for supporting project activities under the 2016 Annual Workplan for the project with almost half the amount reserved for activities under Outcome 3. With the project closing, supporting activities promoting transboundary water resources management is not considered strategic. These resources should therefore be directed at consolidating the gains that have been made with respect to national water resources management.

Recommendation 1: It is recommended that UNDP should consider using the balance on the SCCF component of the project budget as at June 30th 2016 to support the consolidation of the project's achievements in preparation for handing the project over to selected institutions and community groups. This will require that the CC-A project be extended for a minimum of six months (up to March 2017) to allow for this work to be finalised.

Although the CC-A project is adjudged to have been **Successful**, the Terminal Evaluation identified the weakness of project management institutions at community level as a potential risk to the sustainability of some of the achievements recorded over the past three years. The community level institutions at the water harvesting and sand dam sites were generally still developing and required more support to enable them to manage these projects without support from outside. A number of these institutions still expected the PMU to assist them with maintaining the infrastructure which was damaged by flooding at the sand dams or by school children in the case of water harvesting installations. This was despite the fact that the project was being wound up at the time of the evaluation. The evaluation also established that DWA had not identified a focal unit or individual to take over the role of the PMU post project close out. These "institutional weaknesses" will need to be addressed if the achievements scored by the project are to be sustained into the future.

The project had facilitated the negotiation of Memoranda of Agreement between the Mbelebeleni community and NAMBOARD and World Vision for the provision of technical support with specific components of the ecosystems rehabilitation project. The Ministry of Agriculture had also been enlisted to support the bee keeping and aquaculture components of this initiative. The proposed project extension will provide time for the PMU and DWA to guide the development of workplans and the implementation of activities under these agreements.

The evaluation team recommends that the balance of the SCCF grant be used to strengthen community project governance structures through training in project management and maintenance of the structures that have been built with support from the project. Such targeted training will prepare both government and community institutions for taking over responsibility for the management of the project after the close out of the CC-A.

Recommendation 2: It is recommended that UNDP Swaziland and the Regional Technical Advisor support the Government of Swaziland to identify new and additional financial resources for use in replicating the pilot project initiated under the CC-A project to cover more communities in the country. A possible source of funding is the Green Climate Fund and the GEF Small Grants Programme.

The pilot projects funded through the CC-A project have demonstrated the viability of community level interventions in climate change adaptation. The DWA has acknowledged that the experience so far has improved the GoS appreciation of climate change and the various ways it can be mitigated. The department should therefore assimilate the activities initiated under the project into their work programme to facilitate funding of these initiatives as part of formal government investments. The CC-A project has resulted in many important outputs on a very limited budget. The sand dams and the water harvesting projects that were supported by the project have demonstrated climate change adaptation strategies which will require further financial support for them to be sustainable into the future.

Recommendation 3: It is recommended that all relevant Ministries and departments include various project elements in their plans and annual budgets in order for them to attract sustainable funding.

The project has produced a wide range of significant outputs especially i relation to adaptation to climate change at community level which need nurturing for them to transform into results. These achievements have been attributed to strong leadership and guidance provided by the project arrangements put in place at project mobilisation.

Recommendation 4: It is recommended that the Project Steering Committee should be left in place over the recommended one year extension period so that the same effective project leadership remains available to the Project Management Unit.

The need for project sustainability cannot be overemphasised. If the project is to be extended, it is critical that the current Steering Committee members are retained for institutional memory and to ensure that the initial goal and vision are carried forward.

Recommendation 5: That DWA inherit the Outputs from the CC-A project and integrate these into their formal work programmes. This way any additional work that needs to be supported can be funded through normal government budgetary allocations.

The Project Manager has almost single-handedly spearheaded the implementation of the project over the past four years. As the project closes it is expected that the DWA will assume responsibility over the project over the extension period.

Recommendation 6: It is recommended that the DWA identifies and designates a "new face" for the project to ensure the sustainability of the project outputs into the future. This "face "could be in the form of a dedicated unit or individual within DWA.

Information and publicity materials as well as policy briefs on climate change adaptation and its mainstreaming into development planning have been developed under the CC-A project. Most of this

work was accomplished very late in the project and the PMU has not had the time to appropriately package these products.

Recommendation 7: It is recommended that UNDP Swaziland and the Department of Water Affairs complete the packaging of the information and publicity materials on the various elements of the project for use in publicizing project results. Particular attention should be paid to the production of simple one-page messages targeting policy makers. The DWA has already committed to taking over project oversight and will therefore be able to use these materials to publicise the benefits of climate change adaptation.

5. Annexes

Annex 1: Terminal Evaluation Terms of Reference

Terms of Reference

Title:	**Terminal Evaluation of the Project: Adapting National and Transboundary Water Resources Management to Manage Expected Impacts of Climate Change in Swaziland.**
Country of Assignment:	Swaziland
Duty-station:	Home-based with an in-country mission
Contract/Level:	International ICA, Level 3, National SB 9
Duration of Contract:	3 months (25April to 30 July 2016)
Quality Assurance:	UNDP Regional Service Centre, Regional Technical Advisor: Akiko Yamamoto: E-mail address akiko.yamamoto@undp.org.

1. INTRODUCTION

In accordance with UNDP and GEF M&E policies and procedures, all full and medium-sized UNDP supported GEF financed projects are required to undergo a terminal evaluation upon completion of implementation. These terms of reference (TOR) sets out the expectations for a Terminal Evaluation (TE) of the UNDP-GEF project titled**: Adapting National and Transboundary Water Resources Management in Swaziland to Manage the Expected impacts of Climate Change,** (PIMS 3603).

The essentials of the project to be evaluated are as follows:

Project Title:	Adapting National and Transboundary Water Resources Management in Swaziland to Manage the Expected impacts of Climate Change			
GEF Project ID:	4255 (GEF PMIS) 3603 (UNDP PIMS)		At Endorsement (US$)	At Completion (US$)
UNDP Project ID:	00077723	**GEF Financing:**	1,670,000.00	1,670,000.00
Country:	Swaziland	**UNDP SWZ CO:**	200,000.00	200,000.00

Region:	Southern Africa	**Government of Swaziland:**	4,520,900.00	4,520,9000.00
Focal Area:	Climate Change Adaptation	**KOBWA:**	34,000.00	34,000.00
Implementing Agency (IA):	UNDP	**Total Project Cost:**	4,754,900.00	4,754,900.00
Executing Agency (EA):	Ministry of Natural Resources and Energy – Department of Water Affairs (DWA)			
Other Partners involved:	KOBWA SWADE MOA	**Pro-doc signature (date project began):**	08th June 2012	
		(Operational) Closing date:	30th August 2016	

2. PROJECT CONTEXT

Swaziland's sustained socio-economic growth is premised on the availability of water for agriculture and energy production. The 2010 to 2012 national consultations resulting in the development of the, *Adapting National and Transboundary Water Resources Management to Manage Expected Impacts of Climate Change in Swaziland Project* Document, advocated for the national capacities to climate related risks with focus on water resources management. This was in line with the Swaziland's First National Communication FNC (2002) which highlights that water resources, particularly those in river basins shared with neighbouring countries are highly vulnerable to the negative impacts of climate change.

The government prioritized supporting policy interventions and strategies that address climate change (CC) through an Integrated Water Resources Management (IWRM) approach. In addition, the review of the outstanding 2003 National Water Policy, need for amendment of the IWRM Master Plan to integrate climate change, and inadequate data to inform a National Climate Change Policy were gaps pointed key to ensure national development. The emerging CC impacts were observed not only challenging national growth but also the riparian states of the Incomati, Maputo and Umbeluzi river basins shared with South Africa and Mozambique. This required national capacity for data collection; dialogues and integration of CC into national and sectoral frameworks; pilots to generate lessons for vulnerable communities to embark on CC-adaptive undertakings, and; a strengthened national team for better articulation of CC-Reform in the negotiations platform with neighbouring countries.

The project contributes to minimising the expected adverse impacts of climate change on the country's water resources as well as on the livelihoods of local communities. This is implemented through a set of activities that promote the adoption and implementation of climate change adaptation (CCA) policy reforms and practices at national and trans-boundary levels, summarised into the three outcomes **1:** Institutional capacity for climate change adaptation strengthened through the integration of climate change risks into national water resources management policies and establishment of inter-sectoral coordination mechanism based on inclusive and informed national dialogue; **2:** Climate Change risk management integrated into national water and agricultural programmes and implemented in pilot projects to promote adaptation on the ground, and; **3:**Negotiations on transboundary water management for Incomati, Usuthu/Maputo and Umbeluzi river basins informed by climate change risks analysis.

3. PROJECT OBJECTIVES AND SCOPE

The project was designed to ensure that the management of Swaziland water resources is adapted to take into account the anticipated impacts of climate change. The principles of Integrated Water Resources Management (IWRM) are used in the project and climate change risks incorporated into the water resources management approach. The projects promotes national and regional dialogue and enables piloting of climate change adaptation for lessons to inform policy and legislation operationalisation for effective adaptation planning and climate risk management in the water sector. National transboundary negotiator's capacity are improved for influencing the integration of climate-

related into policies and programmes effective management of the shared resource.

The logical framework of the Project is elaborated in the Project Document with more information on project goal, objectives, expected outcomes and indicators appearing also in the Inception Report, quarterly progress reports and the Annual Work Plans.

4. TERMINALEVALUATION OBJECTIVES

- The objectives of the evaluation are to assess the achievement of project results, and to draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming.

- The TE will be conducted according to the guidance, rules and procedures established by UNDP and GEF as reflected in the UNDP Evaluation Guidance for GEF Financed Projects.

- The TE is intending to identify weaknesses and strengths of the project design and implementation strategy and come up with future recommendation to address identified gaps.

5. EVALUTION APPROACH AND METHOD

An overall approach and method for conducting project terminal evaluations of UNDP supported GEF financed projects has developed over time. The evaluator is expected to frame the evaluation effort using the criteria of **relevance, effectiveness, efficiency, sustainability, and impact,** as defined and explained in the UNDP Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-financed Projects. A set of questions covering each of these criteria have been drafted and are included with this TOR (*see Annex C*) The evaluator is expected to amend, complete and submit this matrix as part of an evaluation inception report, and shall include it as an annex to the final report. The evaluation must provide evidence-based information that is credible, reliable and useful. The evaluator is expected to follow a participatory and consultative approach ensuring close engagement with government counterparts, in particular the GEF operational focal point, UNDP Country Office, project team, UNDP GEF Technical Adviser based in the region and key stakeholders. The evaluator is expected to conduct a field mission to Swaziland, and visit the following project sites:

- Rainwater harvesting (10 Schools) – Timphisini High School, Mbasheni Primary School, Cetjwayo Primary School, Bulandzeni Primary School , Malamlela Primary School, Gundvwini Primary School, Mhlabeni Primary School, Bekezela Primary School, Bekezela Secondary School, Etjeni Primary School.
- Sand dams (5 sites) – Matsanjeni, Sigwe, Sitilo, Kabhudla, and Sidvokodvo
- Automatic Weather Station (2 sites) – Sihhoye and Siphofaneni
- Ecosystem restoration and livelihoods development (1 site)–MbelebeleniManzini Region)

Interviews will be held with the following organizations and individuals at a minimum: *Ministry of Natural Resources and Energy – Department of Water Affairs (MNRE-DWA), National Meteorological Services (NMS), Komati Basin Water Authority (KOBWA), Swaziland Agriculture Development Enterprise (SWADE), Swaziland Environment Authority (SEA), National Disaster Management Agency (NDMA), United Nations Development Programme (UNDP), Ministry of Agriculture (MOA), and Beneficiary Communities)*.

6. EVALUTION, CRITERIA AND RATING

An assessment of project performance will be carried out, based against expectations set out in the Project Logical Framework/Results Framework (see TOR Annex A), which provides performance and impact indicators for project implementation along with their corresponding means of verification. The evaluator will review all relevant sources of information, such as the project document, project reports including the Annual Project Reports/Project Information Reports (APR/PIR), project budget revisions, mid-term review, progress reports, project files, national strategic and legal documents, and any other material that the evaluator considers useful for this evidence-based assessment. A list of documents that the project team will provide to the evaluator for

review is included in TOR Annex B of this Terms of Reference.The evaluation will at a minimum cover the criteria of: **relevance, effectiveness, efficiency, sustainability and impact.** Ratings must be provided on the following performance criteria. The completed table must be included in the evaluation executive summary. The obligatory rating scales are included in Annex D.

Evaluation Ratings:			
1. Monitoring and Evaluation	Rating	2. IA&EA Execution	Rating
M&E design at entry		Quality of UNDP Implementation– Implementing Agency (IA)	
M&E Plan Implementation		Quality of Execution – Executing Agency (EA)	
Overall quality of M&E		Overall quality of Implementation/Execution	
3. Assessment of Outcomes	Rating	4. Sustainability	Rating
Relevance		Financial resources	
Effectiveness		Socio-political	
Efficiency		Institutional framework and governance	
Overall Project Outcome Rating		Environmental	
		Overall likelihood of sustainability	

7. PROJECT FINANCE / CO-FINANCE

The Evaluation will assess the key financial aspects of the project, including the extent of co-financing planned and realized. Project cost and funding data will be required, including annual expenditures. Variances between planned and actual expenditures will need to be assessed and explained. Results from recent financial audits, as available, should be taken into consideration. The evaluator(s) will receive assistance from the Country Office (CO) and Project Team to obtain financial data in order to complete the co-financing table below, which will be included in the terminal evaluation report.

Co-financing (Type/Source)	**UNDP Own financing (US$)**		**Government (US$)**		**Partner Agency (US$)**		**Total (US$**	
Grants	**Planned**	**Actual**	**Planned**	**Actual**	**Planned**	**Actual**	**Planned**	**Actual**
Loans								
***In-kind support**								
***Other**								
Totals								

8. MAINSTREAMING

UNDP supported GEF financed projects are key components in UNDP country programming, as well as regional and global programmes. The evaluation will assess the extent to which the project was successfully mainstreamed with other UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and gender.

9. IMPACT

The evaluators will assess the extent to which the project is achieving impacts or progressing towards the achievement of impacts. Key findings that should be brought out in the evaluations include whether the project has demonstrated: a) verifiable improvements in ecological status, b) verifiable reductions in stress on ecological systems, or c) demonstrated progress towards these impact achievements.

10. CONCLUSIONS, RECOMMENDATIONS & LESSONS

The evaluation report must include a chapter providing a set of conclusions, recommendations and lessons.

11. IMPLEMENTATION ARRANGEMENTS

The principal responsibility for managing this evaluation resides with the UNDP CO in *Swaziland*. The UNDP CO will contract the evaluators and ensure the timely provision of per diems and travel arrangements within the country for the evaluation team. The Project Team will be responsible for liaising with the evaluation team to set up stakeholder interviews, arrange field visits, coordinate with the Government etc.

12. EVALUATION TIMEFRAME

The total duration of the evaluation will be 30 days according to the following plan:

Activity	Timing	Completion Date
Preparation	2 days	10th May 2016
Evaluation Mission	7 days	15-22May 2016 (inclusive of travel)
Draft Evaluation Report	13 day	10th June2016
Final Report	8 days	30th July 2016

13. EVALUATION DELIVERABLES

The evaluation team is expected to deliver the following:

Deliverable	Content	Timing	Responsibilities
Inception Report	Evaluator provides clarifications on timing and method	No later than 1 week before the evaluation mission.	Evaluator submits to UNDP CO (cc to UNDP RTA and PMU)
Presentation	Initial Findings	End of evaluation mission	To project management, UNDP CO and UNDP RTA
Draft Final Report	Full report, (per annexed template) with annexes	Within 2 weeks of the evaluation mission	Sent to CO, reviewed by RTA, CO, PMU, GEF OFP and other stakeholders
Final Report*	Revised report	Within 1 week of receiving comments on draft	Sent to CO (cc to RTA and PSC members) for uploading to UNDP ERC.

*When submitting the final evaluation report, the evaluator is required also to provide an 'audit trail', detailing how all received comments have (and have not) been addressed in the final evaluation report. See Annex H for an audit trail template.

14. TEAM COMPOSITION

Two consultants with the following qualifications shall be engaged to undertake the evaluation working concurrently according to the planned schedule. The international consultant who will have in depth understanding of UNDP and GEF projects including evaluation experience will be designated as the team leader and will have the overall responsibility of organizing and completing the review and submitting the final report. The International Consultant has the overall responsibility for completing the desk review prior to the country mission to Swaziland and for submitting the final report following the country mission. The consultant will sign an agreement with UNDP Swaziland and will be bound by its terms and conditions set in the agreement.

The national consultant will provide supportive roles both in terms of professional backup and conduct local consultation meetings with stakeholders The National Consultant recruitment process will be conducted separately by UNDP Country Office. The collection of documents is to be done by National Consultant prior to commencing the work.

<u>Qualifications of Team Leader (International consultant)</u>

- International consultant with at least an advanced academic degree or the equivalent and professional background infields related to climate change adaptation, Integrated Water Resources Management, and Environment or Engineering.
- A minimum of 10years' experience.
- Proven experience and appreciation on the policy mainstreaming work and related policy processes.
- Substantive experience in reviewing and evaluating similar projects, preferable those involving UNDP-GEF or other United Nations development agencies or major donors.
- Excellent communication skills (writing and reading) with good command in English.
- Demonstrate ability to assess complex situations, succinctly distil critical issues and draw forward looking conclusions and recommendations.
- Ability and experience to lead multi-disciplinary and national teams and deliver quality reports within the given time.
- Familiarity with the challenges of developing countries.
- Experience in African countries, especially in SADC region, is considered as advantageous.

Qualifications of National consultant

- At post-degree qualification and professional background in fields related to climate change adaptation and Integrated Water Resources management.
- With a minimum of 10years working experience in the relevant field, with emphasis on policy work,
- Understanding of climate change (adaptation) and IWRM in the Swaziland context
- Good understanding of national development policies and strategies as well as institutional set-up in Swaziland
- Demonstrate skills and knowledge in participatory monitoring and evaluation process.
- Proficient in writing and communicating in both English and SiSwati.
- Excellent in human relations, coordination, planning and teamwork.

15. EVALUATOR ETHICS

Evaluation consultants will be held to the highest ethical standards and are required to sign a Code of Conduct (Annex E) upon acceptance of the assignment. UNDP evaluations are conducted in accordance with the principles outlined in the UNEG 'Ethical Guidelines for Evaluations'.

16. PAYMENT MODALITIES AND SPECIFICATIONS

%	Milestone
10%	Following the submission and approval of the Inception Report
40%	Following the submission and approval of the 1ST draft evaluation report
50%	Following the submission and approval (UNDP-CO and UNDP RTA) of the final terminal evaluation report

17. APPLICATION PROCESS

Applicants are requested to apply online *(http://jobs.undp.org,)* by 6thMarch 2016).A team or individual consultants are invited to submit applications together with their CV for these positions. The application should contain a current and complete C.V. and P11 in English with indication of the e-mail and phone contact. Shortlisted candidates will be requested to submit a price offer indicating the total estimated cost of the assignment (including daily fee, per diem and travel costs). UNDP applies a fair and transparent selection process that will take into account the competencies/ skills of the applicants as well as their financial proposals. Qualified women and members of social minorities are encouraged to apply.

Recommended Presentation of Proposal

(i) Cover letter and Professional Resume CV and P11;

(ii) Technical Proposal, including the proposed evaluation methodology and work plan (1 page max.);
(iii) Financial Proposal, including proposed fee for maximum 30 working days and all other travel related costs.
(iv) Sample of executive summary of a terminal evaluation or any type of evaluation report led by the applicant.

Terms of reference approved by:

Kabiru Nasidi
Deputy Resident Representative (UNDP)

TOR ANNEX A: PROJECT LOGICAL FRAMEWORK

This project will contribute to achieving the following Country Programme Outcome as defined in CPAP or CPD: CPAP (2011-2015) Outcome 3: National institutions have the capacity and provide guidance on the utilization of natural resources in a sustainable and equitable manner.					
Country Programme Outcome Indicators: Enhanced national capacity to put in place environmentally friendly and sustainable development.					
Primary applicable Key Environment and Sustainable Development Key Result Area (same as that on the cover page, circle one): **1. Mainstreaming environment and energy OR 2. Catalyzing environmental finance OR <u>3. Promote climate change adaptation</u> OR 4. Expanding access to environmental and energy services for the poor.**					
Applicable GEF Strategic Objective and Programme: CCA-1: Reducing Vulnerability; CCA-2: Increasing Adaptive Capacity; and CCA-3: Adaptation Technology Transfer[2].					
Applicable SCCF Expected Outcomes: Outcomes 1.1, 2.1, 2.2, 2.3 and 3.1.					
Applicable GEF Outcome Indicators: Indicators 1.1.1, 2.1.1, 2.2.1, 2.3.1, and 3.1.1.					
Project Objective: Promote the implementation of national and trans-boundary integrated water resource management that is sustainable and equitable given expected climate change.					
Outcome	**Indicator**	**Baseline**	**Targets** **End of Project**	**Source of verification**	**Risks and Assumptions**
Outcome 1: Institutional capacity for climate change adaptation strengthened through the integration of climate change risks into national	**1.1:** Key scientific knowledge gaps on climate change impacts within the water sector defined, targeted research to fill knowledge gaps carried out, climate change response options identified, and main findings and strategic recommendations disseminated to at least twenty (20) relevant	**1.1** Information in Swaziland on climate change risks and possible impacts is scarce, particularly regarding flood vulnerability, groundwater potential and crop diversification options	**1.1:** Key scientific knowledge gaps on climate change impacts within the water sector defined, targeted research to fill knowledge gaps carried out, climate change response options identified, and main findings and strategic recommendations disseminated to at least twenty (20) relevant organisations across sectors (incl. KOBWA, MNRE, MoA, MoEPD, MoF, MoH, MoPSI, MTEA, NCCC, NDMA, NMS, NWA, RBAs, SEA, SWADE, SZWP, TPTC)	**1.1.1** Flood vulnerability assessment report **1.1.2** Report on assessment of groundwater potential and optimising groundwater use in the IWRM framework	Risk: Difficulty in accessing existing baseline data from government departments

	water resources management policies and the establishment of inter-sectoral-coordination mechanisms based on inclusive and informed national dialogue	organisations across sectors (incl. KOBWA, MNRE, MoA, MoEPD, MoF, MoH, MoPSI, MTEA, NCCC, NDMA, NMS, NWA, RBAs, SEA, SWADE, SZWP, TPTC)			**1.1.3** National feasibility map for alternative water supply options, e.g. rainwater harvesting, sand dam construction **1.1.4** Assessment report of crop diversification potential	
		1.2: A set of tailor-made climate change response measures related to national (and trans-boundary) water management identified and integrated into at least three (3) national level policies related to water resources management (e.g. NWP, IWRMP, draft National Climate Change Policy) through a series of national policy dialogue workshops (incl. with organisations listed under Output 1.1 and using strategic recommendations from that	**1.2** Key national policies do not, or not adequately, consider climate change	**1.2:** A set of tailor-made climate change response measures related to national (and trans-boundary) water management identified and integrated into at least three (3) national level policies related to water resources management (e.g. NWP, IWRMP, draft National Climate Change Policy) through a series of national policy dialogue workshops (incl. with organisations listed under Output 1.1 and using strategic recommendations from that output)	**1.2.1** Revised/ updated policy documents with specific sections on climate change adaptation **1.2.2** Policy dialogue workshop reports & attendance lists	Assumption: Government remains committed to incorporating climate change adaptation into its policy documents as a matter of priority Risk: Policy adoption process gets obstructed by external (political) factors

	output)				
	1.3: Institutional needs for inter-sectoral cooperation identified (through national dialogue - Output 1.2), appropriate national inter-sectoral coordination mechanism clearly defined, establishment/ strengthening of national coordination mechanism supported and capacity of key staff/ stakeholders strengthened through at least three (3) targeted training courses on inter-sectoral coordination	**1.3** Inter-sectoral coordination needs and mechanisms not clearly defined, National Climate Change Committee not gazetted and with limited competencies	**1.3**: Institutional needs for inter-sectoral cooperation identified (through national dialogue - Output 1.2), appropriate national inter-sectoral coordination mechanism clearly defined, establishment/ strengthening of national coordination mechanism supported and capacity of key staff/ stakeholders strengthened through at least three (3) targeted training courses on inter-sectoral coordination	**1.3.1** Policy dialogue workshop reports & attendance lists **1.3.2** Institutional needs assessment report with recommendations for institutional strengthening **1.3.3** Government Gazette with formal establishment of inter-sectoral coordination mechanisms; minutes of committee meetings **1.3.4** Training course reports, attendance lists and completed evaluation forms	Risk: Lack of government commitment to formalised inter-sectoral coordination mechanism Divergent sector stakeholder interests undermine effective inter-sectoral coordination
Outcome 2: Climate	**2.1:** Guidelines for mainstreaming climate	**2.1** Key national policies do not, or	**2.1:** Guidelines for mainstreaming climate change risks into key national	**2.1.1** Guideline and toolkit	Risk: (Some) relevant

change risk management measures integrated into national water and agricultural programmes and implemented in pilot projects to promote adaptation on the ground	change risks into key national policies (NWP, IWRMP, NCCP) developed, toolkits on practical application of climate change response measures (identified through Output 1.2) developed and at least five (5) targeted training courses on toolkit application delivered	not adequately, consider climate change and inadequate knowledge on practical implementation of climate change response measures	policies (NWP, IWRMP, NCCP) developed, toolkits on practical application of climate change response measures (identified through Output 1.2) developed and at least five (5) targeted training courses on toolkit application delivered	documents **2.1.2** Training course reports, attendance lists and completed evaluation forms	stakeholders do not view climate change as a priority issue
	2.2: Programme/ project specific climate change risks and tailor-made response measures identified and integrated into at least three (3) major management/ investment plans implemented in Swaziland (incl. KDDP, LUSIP and CDPs developed under the GEF SLM programmeimplemented by SWADE)	**2.2** Climate change risks and possible response measures at present not considered in national management/ investment plans	**2.2:**Programme/ project specific climate change risks and tailor-made response measures identified and integrated into at least three (3) major management/ investment plans implemented in Swaziland (incl. KDDP, LUSIP and CDPs developed under the GEF SLM programme implemented by SWADE)	**2.2.1**Programme specific climate change risk assessment/ response options reports **2.2.2** Revised management/ investment plans	Risk: (Some) relevant stakeholders do not view climate change as a priority issue
	2.3: Capacity of key stakeholders and water resources management and/or agricultural	**2.3** Knowledge and awareness of climate change risks is very low	**2.3:**i) Climate change adaptation modules developed for train-the-trainers courses based on risks/responses identified under Output 2.2 to raise	**2.3.1** Climate change adaptation modules for ToT courses	Assumption: Relevant stakeholders are willing to

	development practitioners to integrate climate change risks into their activities strengthened by incorporating the climate risks/responses measures (identified under Output 2.2) into the ongoing training courses offered as part of ongoing national programmes (e.g. KDDP, LUSIP).	and climate change risk is not adequately considered in ongoing implementation of ongoing activities	trainers awareness and capacity on CCA; ii) at least two forthcoming training courses are strengthened through the inclusion of CCA modules in the training materials, and iii) strengthened training courses offered to build awareness and capacity of practitioners	**2.3.2** Training course reports, attendance lists and completed evaluation forms	participate in training Risk:(Some) relevant stakeholders do not view climate change as a priority issue
	2.4: Community based climate resilience projects implemented in pilot sites, including the installation of rainwater harvesting systems in at least four (4) identified communities/ areas and rainwater infiltration improvement schemes (incl. reforestation) in at least four (4) communities/areas	**2.4** Climate change risk awareness and adaptation capacity at community level is very low	**2.4:** Rainwater harvesting systems installed and rainwater infiltration measures (reforestation etc.) applied at the following four sites: i. Komati River Basin at pilot schools enrolled in the KOBWA programme ii. MkhiweniInkhudla in the Umbeluzi River Basin at pilot schools/clinics/Tinkhundla's/NCPs; iii. Kashewula community in the Umbeluzi River Basin at pilot schools/clinics/Tinkhundla's/NCPs; iv. Ngwavuma River Basin in the Maputo Basin at pilot schools/clinics/Tinkhundla's/NCPs.	**2.4** Site visits to pilot sites in Komati Basin, Mkhiweni, KaShewula and Ngwavuma	Assumption: Selected communities are committed to participating in the pilot projects as declared during the PPG field visits Risk: Competing activities for land use could cause disagreement in relation to implementation of adaptation measures; project installation (rainwater harvesting tanks, planted trees etc.)

					affected by vandalism, theft
Outcome 3: Negotiations on trans-boundary water management for the Incomati, Maputo and Umbeluzi river basins informed by climate change risk analysis.	**3.1:** Climate change impacts on trans-boundary water resource management (TWRM) and negotiation options assessed, tailor-made (short-, mid- and long-term) TWRM strategy paper for Swaziland developed through consultations with key stakeholders (as integral part of national policy dialogue - Output 1.2) and position paper for Swaziland TWRM negotiation team(s) jointly developed (with negotiators)	**3.1** Present water agreements (on Incomati, Maputo) do not adequately address climate change and adaptation	**3.1:** Climate change impacts on trans-boundary water resource management (TWRM) and negotiation options assessed, tailor-made (short-, mid- and long-term) TWRM strategy paper for Swaziland developed through consultations with key stakeholders (as integral part of national policy dialogue - Output 1.2) and position paper for Swaziland TWRM negotiation team(s) jointly developed (with negotiators)	**3.1.1** TWRM strategy for Swaziland with explicit consideration of climate change risks/ impacts **3.1.2** Negotiation position paper for Swaziland	Assumption: Other riparian countries accept consideration of climate change risks/impacts as negotiation subject (it has been identified as priority at Tripartite (TPTC) level
	3.2: Targeted information briefs on projected climate change impacts on TWRM developed and disseminated to senior decision-makers in at least twenty (20) relevant organisations, including key water user groups	**3.2** Stakeholder knowledge and awareness on climate change impacts on TWRM is very limited	**3.2**: Targeted information briefs on projected climate change impacts on TWRM developed and disseminated to senior decision-makers in at least twenty (20) relevant organisations, including key water user groups	**3.2** Information briefs	Risk: (Some) relevant stakeholders do not view climate change as a priority issue

TOR ANNEX B: LIST OF DOCUMENTS TO BE REVIEWED BY THE EVALUATORS

- GEF Project Information Form (PIF)
- Project Document (Pro-Doc)
- Quarterly and Annual Progress reports
- Annual Project Implementation Reports (APR/PIR)

- Mid-Term Review Report with the Management Response
- All technicalreports produced by the project
- All sites handover reports
- Project Impact Review Report
- Quarterly and Annual financial reports
- Annual plans and budgets
- Audit Reports
- Field Monitoring Reports
- Established MOU/A
- UN Development Assistance Framework (UNDAF) 2011-2015
- UNDP Country Programme Document (CPD) 2011-2015
- GEF Focal Area Strategic Objectives

TOR ANNEX C: EVALUATION QUESTIONS

A set of evaluation questions must be fully reviewed and amended by the consultant in the context of this TE and included in the TE inception report and as an Annex to the TE report.

Evaluation Criteria	Indicators	Sources	Methodology
Relevance: How does the project relate to the main objectives of the GEF focal area, and to the environment and development priorities at the local, regional and national levels?			
•	•	•	•
•	•	•	•
•	•	•	•
Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?			
•	•	•	•
•	•	•	•
•	•	•	•
Efficiency: Was the project implemented efficiently, in-line with international and national?			

•	•	•	•
•	•	•	•
•	•	•	•
Sustainability: To what extent are there financial, institutional, and/or environmental risks to sustaining long term project results?			
•	•	•	•
•	•	•	•
•	•	•	•
Impacts: Are there indicators that the project has contributed to. Or enabled progress towards, reduced environmental stress and/or improved ecological status?			
•	•	•	•
•	•	•	•
•	•	•	•

TOR ANNEX D: RATINGS

Evaluation Ratings:			
5. Monitoring and Evaluation	Rating	6. IA&EA Execution	Rating
M&E design at entry		Quality of UNDP Implementation– Implementing Agency (IA)	
M&E Plan Implementation		Quality of Execution – Executing Agency (EA)	
Overall quality of M&E		Overall quality of Implementation/Execution	
7. Assessment of Outcomes	Rating	8. Sustainability	Rating
Relevance		Financial resources	
Effectiveness		Socio-political	
Efficiency		Institutional framework and	

		governance	
Overall Project Outcome Rating		Environmental	
		Overall likelihood of sustainability	

Ratings Scales		
Ratings for Effectiveness, Efficiency, Overall Project Outcome Rating, M&E, IA & EA Execution 6:Highly satisfactory (HS): No shortcomings 5: Highly satisfactory (HS): Minor shortcomings 4: Moderately Satisfactory (MS): moderate shortcomings 3: Moderately Unsatisfactory (MU): significant shortcomings 2: Unsatisfactory (U): major shortcomings 1: Highly unsatisfactory (HU): severe problems	**Sustainability Ratings** 4: Likely(L) negligible risks to sustainability 3: Moderately Likely (ML): Moderate risks 2: Moderately Unlikely: Significant Risks 1: Unlikely: Severe risks	**Relevance ratings** 2: Relevant (R) 1: Not Relevant (NR)
Additional ratings where relevant: Not Applicable (N/A) Unable to Assess (U/A)		

ANNEX E: EVALUATION CONSULTANT CODE OF CONDUCT AGREEMENT FORM

Evaluators:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders 'dignity and self-worth.

6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study imitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

Evaluation Consultant Agreement Form:
Agreement to abide by the Code of Conduct for Evaluation in the UN System

Name of Consultant: _____
Name of Consultancy Organization (where relevant): _____
I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.
Signed at *(place)* on *date*
Signature: _____

TOR ANNEX F: EVALUATION REPORT OUTLINE
The Report length should not exceed *40* pages in total (not including annexes).
i. Opening page:

- Title of UNDP supported GEF financed project
- UNDP and GEF project ID#s
- Evaluation time frame and date of evaluation report
- Region and countries included in the project
- GEF Operational Program/Strategic Program
- Implementing Partner and other project partners
- Evaluation team members
- Acknowledgements

ii. Executive Summary

- Project Summary Table
- Project Description (brief)
- Evaluation Rating Table
- Summary of conclusions, recommendations and lessons

iii. Acronyms and Abbreviations

(See: UNDP Editorial Manual)

1. Introduction

- Purpose of the evaluation
- Scope & Methodology
- Structure of the evaluation report

2. Project description and development context

- Project start and duration
- Problems that the project sought to address
- Immediate and development objectives of the project
- Baseline Indicators established
- Main stakeholders
- Expected Results

3. Findings

(In addition to a descriptive assessment, all criteria marked with (*) must be rated)

3.1 Project Design / Formulation

- Analysis of LFA/Results Framework (Project logic /strategy; Indicators)
- Assumptions and Risks
- Lessons from other relevant projects (e.g., same focal area) incorporated into project design
- Planned stakeholder participation
- Replication approach
- UNDP comparative advantage
- Linkages between project and other interventions within the sector
- Management arrangements

3.2 Project Implementation

- Adaptive management (changes to the project design and project outputs during implementation)
- Partnership arrangements (with relevant stakeholders involved in the country/region)
- Feedback from M&E activities used for adaptive management
- Project Finance
- Monitoring and evaluation: design at entry (*), implementation (*), and overall assessment (*)
- Implementing Agency (UNDP) execution (*) and Executing Agency execution (*), overall project implementation/ execution (*), coordination, and operational issues

3.3 Project Results

- Overall results (attainment of objectives) (*)
- Relevance(*)
- Effectiveness (*)
- Efficiency (*)
- Country ownership
- Mainstreaming
- Sustainability: financial resources (*), socio-economic (*), institutional framework and governance (*), environmental (*), and overall likelihood (*)
- Impact

4. Conclusions, Recommendations & Lessons

- Corrective actions for the design, implementation, monitoring and evaluation of the project
- Actions to follow up or reinforce initial benefits from the project
- Proposals for future directions underlining main objectives
- Best and worst practices in addressing issues relating to relevance, performance and success

5. Annexes

- ToR
- Itinerary
- List of persons interviewed
- Summary of field visits
- List of documents reviewed
- Evaluation Question Matrix
- Questionnaire used and summary of results
- Evaluation Consultant Agreement Form
- *Annexed in a separate file:* TE audit trail

ANNEX G: EVALUATION REPORT CLEARANCE FORM

(to be completed by CO and UNDP GEF Technical Adviser based in the region and included in the final document)

Evaluation Report Reviewed and Cleared by
UNDP Country Office
Name:_____

Signature: _____ Date:_____

UNDP GEF RTA
Name:_____

Signature: _____ Date:_____

ANNEX H: AUDIT TRAIL TEMPLATE

The following is a template for the evaluator(s) to show how the received comments on the draft TE report have (or have not) been incorporated into the final TE report. This audit trail should be included as an annex in the final TE report.

To the comments received on (*date*) from the Terminal Evaluation of (*project name*) (UNDP *PIMS #)*

The following comments were provided in track changes to the draft Terminal Evaluation report; they are referenced by institution ("Author" column) and track change comment number ("#" column):

Author	#	Para No./ comment location	Comment/Feedback on the draft TE report	TE team response and actions taken

Annex 2: Evaluation Mission Itinerary

Adapting National and Transboundary Water Resources Management to Manage the Expected Impacts of Climate Change Project

Project Terminal Evaluation Country Mission Itinerary

16 – 23rd May 2016

Meeting/Event	Participants	Venue	Time
Day 1 Monday, 16th May 2016			
Arrival at Mbabane – Sunday 15th May 2016			
Meeting with UNDP Management and project team	Sithembiso, Ncamiso, Maggie	UNDP Conference Room	08h00 – 10h00
Meeting with the implementing partner Department of Water Affairs	DWA Director	Directors Office	11h00 – 13h00
Travelling and spend a night at Nisela Guest House			
Day 2 Tuesday, 17th May 2016			
Field Visit	Ntshanini Sand Dam – good matured sand dam	Ntshanini	09h30 – 11h00
	Matsanjeni Sand Dam – non matured sand dam	Matsanjeni	12h00 – 13h30
	Lubovane Weather Station	Lubovane Dam	15h30
	Travelling and spend a night in Mbabane		
Day 3 Wednesday, 18th May 2016			
Field Visit	Lugulo Sand Dam – good non matured sand dam with	Ka-Bhudla	09h30 – 11h00

Meeting/Event	Participants	Venue	Time
	electrical pumping		
	Mbelebeleni Ecosystem Restoration Project	Mbelebeleni	12h30 – 14h00
	Malamlela Primary School – Rainwater Harvesting with a failed borehole	Dvokolwako	15h00 – 16h30
	Travelling and spend a night in Mbabane		
Day 4 Thursday, 19th May 2016			
Field Visit	Bulandzeni Primary School rainwater harvesting Project	Bulandzeni	09h30 – 11h00
	Mbasheni Primary School rainwater harvesting Project	Mbasheni	13h30 – 15h00
	Travelling and spend a night in Mbabane		
Day 5 Friday, 20th May 2016			
Consultations with Project Technical Committee and All Stakeholders	Stakeholders including PTC	Royal Villas	09h00 – 13h00
Consultants Planning time			14h00
Day 6 Monday, 23rd May 2016			
Debriefing/ Report Back Meeting	Project Board and Consultants Team	Mountain Inn Hotel	09h00 – 12h00
End of Mission (**Departure on Tuesday Morning)**			16h00

Annex 3: Progress towards Results

Project Title: Adapting national and transboundary water resources management in Swaziland to manage the expected impacts of climate change						
Project Goal: To ensure that the management of Swaziland's water resources is adapted to take into account the anticipated impacts of climate change						
Project Objective: To promote the implementation of national and transboundary integrated water resources management that is sustainable and equitable given expected climate change.						
Project Outcome	**Output**	**End of Project Targets**	**Activities Conducted**	**Status at Midterm Review**	**Status at Terminal Evaluation**	**Terminal Evaluation Level of Assessment**
Outcome 1: Institutional capacity for climate change adaptation strengthened through the integration of climate change risks into national water resources management policies and the establishment of inter-sectoral-coordination mechanisms based on inclusive and informed national dialogue	**1.1:** Key scientific knowledge gaps on climate change impacts within the water sector defined, targeted research to fill knowledge gaps carried out, climate change response options identified, and main findings and strategic recommendations disseminated to at least twenty (20) relevant organisations across sectors (incl. KOBWA, MNRE, MoA, MoEPD, MoF, MoH, MoPSI, MTEA, NCCC, NDMA, NMS, NWA,	**1.1:** Key scientific knowledge gaps on climate change impacts within the water sector defined, targeted research to fill knowledge gaps carried out, climate change response options identified, and main findings and strategic recommendations disseminated to at least twenty (20) relevant organisations across sectors (incl. KOBWA, MNRE, MoA, MoEPD, MoF, MoH, MoPSI, MTEA, NCCC, NDMA, NMS, NWA, RBAs, SEA, SWADE, SZWP, TPTC)	1. Climate change vulnerability assessment of the water sector and its infrastructure in Swaziland. 2.Groundwater Use within the context of IWRM Framework and General Water Sector Reform 3. Crop diversification: Opportunities and constraints for the agriculture sector in order to develop resilience. 4. Optimizing national Feasibility of sand	Studies have contributed to raising awareness about climate change and filled knowledge gaps with respect to vulnerability of water to climate change especially at national and transboundary context. The crop diversification study was not done well and was not useful.	The project has used the results from the studies conducted with the vulnerability study contributing to preparations for negotiations at transboundary level. KOBWA has replicated the vulnerability study to inform their water management strategy. Integration of climate change into other policy interventions will need to continue after the project life span. Understanding of groundwater distribution around the country is	

	RBAs, SEA, SWADE, SZWP, TPTC)		dams in Swaziland.		better understood following the study but the study will need to be done at greater detail as some boreholes that have been drilled were dry. 3. A crop diversification study was conducted but assessed to be lacking in detail. There is evidence of raised awareness among large institutions like SWADE of the need to diversify their cropping patterns due to increasing water shortages.	
	1.2: A set of tailor-made climate change response measures related to national (and trans-boundary) water management identified and integrated into at least three (3) national level policies related to water resources management (e.g. NWP, IWRMP, draft National Climate Change Policy)	**1.2:** A set of tailor-made climate change response measures related to national (and trans-boundary) water management identified and integrated into at least three (3) national level policies related to water resources management (e.g. NWP, IWRMP, draft National Climate Change Policy) through a series of national policy dialogue workshops (incl. with organisations	National policy dialogue workshops with relevant actors to identify tailor-made climate change responses.	The project had supported policy analysis for inclusion of climate change considerations (Review of Water Policy and other Sectoral Policies in light of inclusion of climate change impact and adaptation Study). The study was	Potential impacts of climate change on transboundary water resources identified in studies commissioned and factored into TPTC planning documents. Little progress has been made with respect to integrating climate change into policy frameworks with the Climate Change and Water Policies still going	

	through a series of national policy dialogue workshops (incl. with organisations listed under Output 1.1 and using strategic recommendations from that output)	listed under Output 1.1 and using strategic recommendations from that output)		adjudged to lack the necessary detail to produce the tailor made responses that were expected.	through the approval processes.	
	1.3: Institutional needs for inter-sectoral cooperation identified (through national dialogue - Output 1.2), appropriate national inter-sectoral coordination mechanism clearly defined, establishment/ strengthening of national coordination mechanism supported and capacity of key staff/ stakeholders strengthened through at least three (3) targeted training courses on inter-sectoral coordination	**1.3**: Institutional needs for inter-sectoral cooperation identified (through national dialogue - Output 1.2), appropriate national inter-sectoral coordination mechanism clearly defined, establishment/ strengthening of national coordination mechanism supported and capacity of key staff/ stakeholders strengthened through at least three (3) targeted training courses on inter-sectoral coordination	1. Institutional needs assessment for inter-sectoral cooperation and coordination 2. Support establishment/ strengthening of inter-sectoral coordination mechanism through development and implementation of targeted capacity building and training	No evidence of an institutional needs assessment for institutional cooperation. Cooperation was between the project and the various institutions that serve on project implementation and management entities. The mid-term review asked the pertinent question as to whether institutional collaboration around climate change will continue after the project closure.	National dialogue initiated (Team found draft reports)The Evaluation Team did not establish any evidence of an assessment of institutional needs for inter-sectoral cooperation. However, this is advanced through the various sectors participating in project management bodies such as the Project Technical Committee and the Project Board. Coordination should go beyond the project collaborating with the various sectors and done and managed among the institutions themselves.	

Outcome 2: Climate change risk management measures integrated into national water and agricultural programmes and implemented in pilot projects to promote adaptation on the ground	**2.1:** Guidelines for mainstreaming climate change risks into key national policies (NWP, IWRMP, NCCP) developed, toolkits on practical application of climate change response measures (identified through Output 1.2) developed and at least five (5) targeted training courses on toolkit application delivered	**2.1:** Guidelines for mainstreaming climate change risks into key national policies (NWP, IWRMP, NCCP) developed, toolkits on practical application of climate change response measures (identified through Output 1.2) developed and at least five (5) targeted training courses on toolkit application delivered	1. Develop guidelines for mainstreaming climate change risks into key national policies and plans 2. Develop toolkits for practical implementation of climate change response measures. 3. Develop and deliver targeted training courses based on developed toolkits.	The development of guidelines for mainstreaming climate change risks into national policies had not been produced	KDDP and SWADE have developed Guidelines for mainstreaming climate change into their operations. Tool kits developed and SWADE training courses updated to include climate change considerations.	
	2.2: Programme/ project specific climate change risks and tailor-made response measures identified and integrated into at least three (3) major management/ investment plans implemented in Swaziland (incl. KDDP, LUSIP and CDPs developed under the GEF SLM programmeimplemented by SWADE)	**2.2:**Programme/ project specific climate change risks and tailor-made response measures identified and integrated into at least three (3) major management/ investment plans implemented in Swaziland (incl. KDDP, LUSIP and CDPs developed under the GEF SLM programme implemented by SWADE)	1. Integrate climate change risks into KDDP and LUSIP Phase I and Phase II CMPs. 2. Integrate climate change risks and IWRM principles into the CDPs being developed in 15 chiefdoms under the GEF SLM programme. 3. Integrate climate change risks into all LUSIP and KDDP training modules. These include: i) water management; ii) sugar	Work on this had just started so there was no assessment of progress.	Climate change risks integrated into KDDP and LUSIP and SWADE has adopted a programme to assess the degree of vulnerability of their projects and programmes to climate change resulting in the organisation adopting a crop diversification strategy in response to increased water shortages. Training modules for	

			cane production; iii) environmental policy; iv) agri-business; and v) employment regulation. 4. Undertake climate change risk training based on a capacity needs assessment in order to integrate climate change risks into decision-making within NCCC, SEA, NWA, DWA, SZWP, RBAs, WUAs, IDs, NDMA, and NMS.		LUSIP and KDDP now incorporate climate change adaptation Capacity needs assessment was not conducted but climate change risks have been integrated into decision making at SEA, DWA and some RBAs.	
	2.3: Capacity of key stakeholders and water resources management and/or agricultural development practitioners to integrate climate change risks into their activities strengthened by incorporating the climate risks/responses measures (identified under Output 2.2) into the ongoing training courses offered as part of ongoing national programmes (e.g. KDDP, LUSIP).	**2.3:**i) Climate change adaptation modules developed for train-the-trainers courses based on risks/responses identified under Output 2.2 to raise trainers awareness and capacity on CCA; ii) at least two forthcoming training courses are strengthened through the inclusion of CCA modules in the training materials, and iii) strengthened training courses offered to build awareness and capacity of practitioners	1. Develop climate change adaptation modules for (existing) SWADE train-the-trainers courses train trainers in SWADE (LUSIP and KDDP) to improve their technical capacity on the impacts of climate change on water and agriculture and to contextualise this in their extension work with farmers. 2. Train community environmental officers who have been appointed for each	No progress recorded on this aspect of the project. No evidence of this training having been	Training modules for LUSIP were not developed as planned. This could become a focus area for interventions that are implemented after the project has closed. Terminal evaluation team did not identify any involvement of either DWA of MoA technical personnel interacting with beneficiary communities. This should be made a focus area after DWA takes over responsibility for	

			farmers' association in KDDP and LUSIP on climate change impacts, and the relationship between such impacts and different baseline land use practices. 3. Undertake workshops with the technical staff and engineers of SWADE to assist them in increasing their capacity to include climate change considerations in their development plans. 4. Train water user associations and RBAs and the NMS to: i) manage weather stations installed in the demonstration sites (see Activity 2.4.7) to improve the long-term monitoring of climate change in Swaziland; ii) collect data; and iii) transfer data to the NMS office and ensure the appropriate storage of the data. 5. Train stakeholders from Mkhiweni	implemented Weather stations installed and data	the project. No evidence of training provided for community Environmental Officers under KDDP. Capacity building at a variety of levels should be integrated into following initiatives. Automatic weather stations have been installed at two stations and data is transmitted to NMS. Evaluation could not establish how useful these installations are as	

			Inkhudla on reforestation techniques, including: i) basic horticultural practices; ii) nursery maintenance; iii) transfer of saplings to sites; iv) alien clearing best practices; and v) appropriate practices for establishing the saplings in the degraded ecosystem. 6. Train community members to build simple rainwater harvesting systems and raise awareness of the benefits associated with rainwater harvesting. 7. Train community members on techniques to enhance rainwater infiltration and raise awareness of the benefits associated with enhancing rainwater infiltration.	being collected and transmitted to NMS. Training started for the community	they did not meet with anyone from NMS. The ecosystem restoration project was fraught with many challenges. Implementation of planned activities was scuttled by poor community cohesion. Training on reforestation was conducted with all participating community representatives A nursery irrigation system has been established and planting of seedlings is expected in the next planting season. There is a risk of this investment being lost if NAMBOARD do not take the project over quickly. Community members trained in basic rain water harvesting through project support. Trenches constructed on steep slopes to stem sheet and gully erosion	

					and encourage infiltration are showing evidence of success with stream recharge rates increasing thereby guaranteeing availability of water for crop production and reforestation in the Mkhiweni Inkhundla.	
	2.4: Community based climate resilience projects implemented in pilot sites, including the installation of rainwater harvesting systems in at least four (4) identified communities/ areas and	**2.4:** Rainwater harvesting systems installed and rainwater infiltration measures (reforestation etc.) applied at the following four sites: i. Komati River Basin at pilot schools enrolled in the KOBWA programme	1. Review and climate-proof the KOBWA emergency preparedness response plans for the three major dams in the country. 2. Install rainwater	No comment made on this activity.	Emergency preparedness plans are now in place at Maguga and Luboveni Dams through Project support.	

	rainwater infiltration improvement schemes (incl. reforestation) in at least four (4) communities/areas	ii. Mkhiweni Inkhudla in the Umbeluzi River Basin at pilot schools/clinics/Tinkhundla's/NCPs; iii. Kashewula community in the Umbeluzi River Basin at pilot schools/clinics/Tinkhundla's/NCPs; iv. Ngwavuma River Basin in the Maputo Basin at pilot schools/clinics/Tinkhundla's/NCPs.	harvesting systems to provide water for domestic use. 3. Determine feasible sites for the installation of sand dams - constructed 5 pilot sand dams at Matsanjeni, Sigwe, KaBhudla, Sidvokodvo and Stilo. 4. Demonstrate appropriate techniques to directly improve rainwater infiltration rates in vulnerable communities – 10 pilot sites. 5. Undertake reforestation and ecosystem restoration in Mkhiweni Inkhudla. 6. Install basic weather stations (i.e. to collect rainfall, wind, temperature) at the demonstration sites as well as at LUSIP (Phase 1) and KDDP sites (if not included in the above pilot)- 2 weather stations installed at Lubovane	Rainwater harvesting installed at 10 schools and institutions in the three river basins. Operational efficiency weak because of weak controls by recipient communities. Five sand dams built with community input and participation. Reforestation and ecosystems rehabilitation had started at Mkhiweni	Rainwater harvesting has had huge impacts on water supply at the schools where they have been installed. School attendance has risen while recruitment of qualified teachers to these schools is now easier. There are issues with maintenance of some of the installations at some schools which points to possible lack of ownership. A total of five (5) sand dams have been constructed as a response to water shortages at community level. While four of these are on their way to maturity one dam has been unsuccessful due to poor choice of site. Community expectations are that the dams would yield enough water for them to drink and water their livestock and to grow vegetables for home consumption. Despite	

			and Sihhoye 7. Produce a lessons learned document on both rainwater harvesting and rainwater infiltration pilots and present findings to NCCC, the NWA, DWA, SZWP, RBAs, WUAs, IDs, the NDMA, the NMS and donor agencies to motivate for up-scaling where successful. 8. Document lessons-learned from the project on a continual basis and compile the results of adaptation measures under Outcomes 2. Present the lessons in a summary document that is distributed to all stakeholders. In addition, collate and submit all technical reports and documents on lessons-learned to the ALM and WikiADAPT.		the low rainfall experienced in 2015/2016, some of the water transfer piping associated with the dams is already damaged and has been left unattended to by the beneficiary communities. The evaluation team is concerned about lack of ownership of these structures by the communities. At this late stage in the project, some communities were still asking for assistance with repairing water transfer infrastructure associated with the dams. Two weather stations have been constructed and are operational. Reforestation and ecosystems restoration was initiated at Mkhiweni Inkudla. Progress with	

					institutionalising this initiative had been slow because of poor community organisation. Lessons learnt have been documented and policy briefs and publicity materials produced. These are still to be disseminated across the country. There are valuable lessons from this project which should continue to be documented and disseminated for replication of project results to other parts of the country and beyond.	
Outcome 3: Negotiations on trans-boundary water management for the Incomati, Maputo and Umbeluzi river basins informed by climate change risk analysis.	**3.1:** Climate change impacts on trans-boundary water resource management (TWRM) and negotiation options assessed, tailor-made (short-, mid- and long-term) TWRM strategy paper for Swaziland developed through consultations with key	**3.1:** Climate change impacts on trans-boundary water resource management (TWRM) and negotiation options assessed, tailor-made (short-, mid- and long-term) TWRM strategy paper for Swaziland developed through consultations with key stakeholders (as integral part of national policy	1. Assessment of climate change impacts on trans-boundary water management based on vulnerability assessment. 2. Develop strategy paper mapping out short-, mid-, and long-term objectives of Swaziland with respect to trans-boundary	Little had happened under this Outcome at the time of the MTR.	The pilot projects are all located in the three major transboundary river basins in Swaziland. Adaptation lessons from these pilots will inform Swaziland's planning and strategy for the management of transboundary water resources. Contacts with TPTC have been limited	

	stakeholders (as integral part of national policy dialogue - Output 1.2) and position paper for Swaziland TWRM negotiation team(s) jointly developed (with negotiators)	dialogue - Output 1.2) and position paper for Swaziland TWRM negotiation team(s) jointly developed (with negotiators)	water management in the light of changing climatic conditions. 3. Develop a position paper informing Swaziland delegations to Incomati/Maputo and Umbeluzi negotiations (respectively) on options for integrating climate change aspects into agreement negotiations including possible adaptive management tools for integration into the forthcoming agreements.		to those stakeholders who sit on this committee. A draft position paper and strategy paper for transboundary water management have been developed. The project has done enough to raise awareness about the need to integrate climate change considerations into transboundary water resources management.	
	3.2: Targeted information briefs on projected climate change impacts on TWRM developed and disseminated to senior decision-makers in at least twenty (20) relevant organisations, including key water user groups	**3.2**: Targeted information briefs on projected climate change impacts on TWRM developed and disseminated to senior decision-makers in at least twenty (20) relevant organisations, including key water user groups	1. Develop targeted information briefs on projected climate change impacts on trans-boundary water resources management for relevant decision-makers at technical and political level across all relevant sectors. 2. Develop awareness raising material for	No specific work done on this Output	Policy Briefs, Brochures and Information or publicity materials on rainwater harvesting, sand dams and implications of climate change on transboundary water resources were produced only in 2016 so they have not been distributed widely. This is an issue that needs to	

			relevant stakeholder (user) groups on short-, mid- and long-term impacts of climate change on trans-boundary water management and allocation regime.		be addressed in the period of an extension to the project if it is granted.	

Key

Green- Means Achieved

Yellow- Means on Target to be achieved

Red- Means Not Achieved

Annex 4: List of People Consulted

Project Board

Name	Organisation	Position	Contact
Mr. Obed Ngwenya	MNRE-DWA	Director	76063613
Mr Samson Sithole	SWADE	Project Manager	7663640
Sithembiso Hlatshwako	UNDP Swaziland C/O	Programme Specialist	
Thobile Dlamini	MNRE-Planning	Economist	76263643
Leonard Ndlovu	National Water Authority	Member/Water Resources Manager	76026094
Sakiwe Nkiomo	KOBWA	Acting Water Manager	78026689
Ncamiso Mhlanga	UNDP/DWA	Project Manager	78023557
Maggie Phungwayo	UNDP/DWA	AFO	76048392
Dr. Akiko Yamamoto	UNDP Regional Office Addis Ababa	Regional Technical Advisor-International Waters	akiko.yamamoto@undp.org
Ms Anne Woodfine	Independent Consultant	Intermittent Technical Advisor	woodfine1@woodfine1.freeserve.co.uk

Project Technical Committee and Other Stakeholders

Name	Organisation	Position	Contact
Mr. Doctor Hlongwane	Swaziland Electricity Company	Generation Manager	76028488
Trevor Shongwe	MNRE-DWA	Chief Water Engineer	76063636
Stan Maphosa	MOET-Planning	Economist	765737591
Sicelo Mashwama	Swaziland Water Supply Company	SHEQ Manager	78021821
Daniel Sithole	MOH-EHD	Principal Environmental Health Officer	76287810

Mangaliso Dlamini	DWA	Water Bailiff	76059423
Meshack Dlamini	DWA	Water Chemist	76088237
Victoria Dlamini	DWA	Technologist	76252319
Nqobile Dlodlo	NDMA	Executive Assistant-M&E	76072110
Bongani Mogongo	MoA	LDO	7684593
Prof. Jonathan T. Matondo	UNISWA	Hydrology	78134723
Siboniso Mabe	ADRA		76374027
Doreen Mawira	ADRA	Programme Manager	76544761
Makhosini Khoza	DWA	Chief Water Engineer	78471908
Caiphus Dlamini	MNRE-DWA	Design Engineer	76899068
Freddy Magagula	MoA- Fisheries	Senior Agricultural Officer-Fisheries	76072195
Dladla Boniswa	UNICEF	WASH Project Officer	76118330
Lynn Kota	SWADE/LUSLMP	Project Manager	76063609

Annex 5: Summary of Field Visits

NTJANINI SAND DAM

Date: 17/05/2016

Present:

1. Mrs. Dlamini-Secretary
2. Mrs. Ndzinisa: Treasurer:
3. Mr Simelane: Vice Secretary
4. Mrs. Simelane: Umphakatsi Representative:
5. Mr Ntjangase: Bucopho

Proceedings:

- The chiefdom is made up of Elulakeni and Ekuthuleni chiefdoms falling under Sigwe Inkhundla.
- The project started off through a meeting convened by the Bucopho and UNDP
- In this meeting it was revealed that the construction of a sand dam required a rocky foundation and as such the community and UNDP representatives went about along the River Ntjanini looking for a suitable rocky foundation until they found one.
- All households (480) were required to participate in the construction and therefore each household had to send a representative and E64 fine was meted out to absconding households.
- Construction usually started at around 7 am and lasted until about 10 pm.
- UNDP provided construction material and some community members close to the construction point provided a place for storing some of the material while some were kept at the Inkhundla.
- The community was divided into 5 groups that alternated construction dates.
- The main driver towards the unity and motivation towards the construction activity was the drought which had resulted in livestock deaths, drying up of water sources such as rivers and cholera outbreaks due to people using unprotected and polluted water due to it shortage.
- Initially the construction was estimated to take 5 days but it ended up taking about 10 days
- UNDP provided food to the people during construction but before the construction was completed the food provision ceased and Bucopho made a E1200 donations towards purchasing of more food
- Food provision was very critical due to the hunger situation in the area since some households go for about 3 days without food as a result of poverty and drought faced since 2015.
- The UNDP team also consisted of 5 Kenyan nationals who supervised the construction but just before the construction was completed these left the construction and the Swazi team led the activity.
- The water runs 24hrs but has a rusty smell making it difficult to drink the water without boiling or disinfecting it.
- The heavy rains that fell in 2014 washed away the pipes and the remaining pipes were blocked resulting in water not reaching the livestock watering troughs.
- Each household is expected to pay R100 joining fee and currently total contributions amount to R12, 500 which is kept at Treasurer's house- no bank account was opened-constitution drawn up but was taken in 2014 for singing but was never returned.
- This borehole provided by UNDP has changed community lives: it flows continuously and is central not salty as all the others.
- Their wish is to get water closer to homesteads and to fence off the area

- Water sampling was done 2 months ago and awaiting results.
- Working relations with UNDP team were very good as they were there all the time they were needed they presented a good working spirit.
- The Ntjanini River used to be a perennial River but after 2000s it started drying up
- The first boreholes were established around 1992 but these do not have a good yield as water availability from them does not last over a month even during the rainy season.

MATSANJENI COMMUNITY SAND DAM

Date: 17/05/2016

Present:

1. Mr T Myeni-Chairperson
2. Mrs. Bester Dlamini- Vice Chairperson
3. Mr Themba Shabangu- Treasurer
4. Mr Philemon Sibiya-Secretary
5. Mrs. Annie Vilane- Vice -Secretary
6. Mr Simon Nhlengetfwa- Member
7. Mr Mandla Nhlanzi- Member

Proceedings:

- Construction started in May 2014.
- About 200 community members participated in the construction.
- UNDP provided building material and transport.
- The UNDP team also had about 5 Kenyans who led the construction.
- The dam wall construction took about 10 days.
- UNDP also provided food but it got finished before construction was finished.
- Community members therefore made contributions towards the food provision.
- There was not much rain received in 2014 but the heavy rains that fell in 2015 washed away the pipes and silt closed the pipes and filled the dam instead of sand. The pipes were not tied or bound together and that caused their being washed away.
- The clean water provided by the dam during the one month of it operation was helpful and all people marveled and appreciated it. Community member had already started gardening and were using water from the dam for watering.
- Now that the dam has failed the community wishes to change to an earth dam or to raise the dam wall.
- The traditional leadership (Umphakatsi) allocated the community about 20 ha for gardening which they had hoped to utilise using the water from the dam.
- The water started disappearing after the construction of the Lavumisa-Nhlangano road in 1992 and the suspicion is that the ‘snake’ which was resident in the River took the water with when it relocated as a result of the disturbance experienced during road construction.
- Now community members who can afford purchase water from SWSC which cost E450/5000 litre tank.
- The nearest borehole is about 6km and is salty and pump often malfunctional.
- This dam was helpful in that it provided clean water and within a shorter walking distance for elderly and sickly.
- Community members pay R79 per month.
- Community feels the River characteristic was not fully understood prior to construction
- People want to grow vegetables once water is available.
- UNDP had promised fence for the land allocated for vegetables but was never provided.

LUGULO SAND DAM

Date: 18/05/2016

Present:

1. Mr M Sibandze-Chairperson
2. Mr M Sithole- Vice Chairperson
3. Mrs. G Magagula-Treasurer
4. Mr M Magagula- Umphakatsi Representative
5. Mr Maphalala–Secretary

Proceedings:

- Community member feel lucky to have been considered for the project. At first this did not make sense as it was a new concept and no one could understand how a dam could be constructed across a River.
- UNDP advised the community to establish a committee to be trained on the construction
- The main driver that motivated people to participate was the drought and climate change conditions which had caused frequent droughts and decreased River flows, increased temperatures, reduced rainfall. Another sign was that previously staggered planting was easier due to rainfall patterns but that is no longer possible with the prevailing rainfall patterns and variability.
- In 2014 rain started late, November and in 2015 not much rain was received and as a result people and livestock died.
- Construction started in April 2014 where people collected stones / rocks, trenches were dug and a pump and livestock drinking trough were established with support of a contractor.
- The expectation was 50 people per team per day but numbers were as high as 200 people.
- UNDP provided construction material and supervision by 5 Kenyan nationals.
- The aim is now to have water to water gardens, establish ecotourism initiatives and to make some concrete slab at foot of the dam to prevent further erosion.
- The main challenge is access to the pump house as the contractor left with keys. There is also a need for an automatic switch to reduce electricity consumption as current light is on 24/7.
- There is also a need for a valve to control the amount of water flowing out. A need for a gauging / measuring device for people to know how much water is in the dam.
- There is vandalism of the tap for the water troughs including the signage of the sand dam.
- There was no formal handover from the contractor to community after construction
- The water in trough is yellow and is smelling of urine. Samples were taken but results are not yet back. There is need to control erosion at river banks and one caused by water flowing over land due to slope.

MBELEBELENI ECOSYSTEM RESTORATION PROJECT

Date: 18/05/2016

Present:

1. **James Sangweni –Overall Chairperson**
2. **Simanga Gembe- Secretary Gardens committee**
3. **Linah Ntjalintjali-Vice Chairperson**
4. **Esther Kunene-Member**
5. **Rose Zwane-Chairperson**
6. **Lomasontfo Kunene-Member**
7. **Elliot Mabuza-Treaurer**
8. **Senzo Gumbi-Member**

Proceedings:

- Community members cleared alien invasive plants so as to improve the ecosystem and control erosion
- Members are very grateful for the garden initiative
- Fencing was provided but was not enough as it could not cover up the whole area
- Drip implementation I not complete
- The filters have no flow measurements and pressure control mechanism
- The committee still requires training on garden management and marketing
- NAMBOARD has promised to bring seedlings and provide some training, however sales will be on NAMBOARD terms
- The members were allocated 5ha by traditional authority for garden development for commercial purposes

Beekeeping

1. **Nompendulo Mnisi-Secretary**
2. **Zanele Kunene-Vice Secretary**
3. **Lindiwe Khumalo-Treasurer**
4. **Phumaphi Mdluli-Member**
5. **Baby Magagula-Member**

Proceedings:

- Training on beekeeping was conducted by the Ministry of Agriculture in February 2016 and lasted for 3 weeks
- 2 Female and 5 Male participants attended the training
- The training was on basic beekeeping and involved making boxes, safety etc
- UNDP provided material to make the boxes and 80 boxes have been made
- The members currently do not have enough uniforms, sprays and filters / sifters for the honey, flowers are inadequate, not enough buckets and knives
- There is currently no constitution in place to guide membership
- There is no fixed joining fee
- Profit from the Garden project are not yet known or forecasted

Fisheries

1. Hlobsile Kunene-Vice Secretary
2. Duduzile Magagula-Member
3. Thabsile Gembe-Member
4. Ntombikayie Motsa-Member
5. Thandi Dlamini-Member
6. Zodwa Mdluli-Member
7. Ntombi Masuku-Treaurer

Proceedings:

- There are a total of 23 members who joined individually
- The members have already constructed 4 ponds
- Training was conducted by Ministry of Agriculture and 18 members attended, 11 Female and 7 male participants
- However, the training was conducted after the ponds were already dug and the members were advised that due to soil characteristics of the ponds, it was not possible to continue with fisheries
- The only way out would be to apply concrete on all the 4 sites which the members cannot afford
- There are no markets established yet
- The members also do not know the fish price and how much profit should be expected as well as the selling criterion (cost per fish versus cost per kg)

Nursery

1. Phumlani Dlamini-Chairperson
2. Sifiso Dlamini-Secretary
3. Nondumiso Maseko-Vice Secretary
4. Sibongile Bhembe-Treasuer
5. Josephina Dlamini-Member
6. Celimphile Dvuba-Member

Proceedings:

- The nursery members are 10 in total with equal number of male and female members
- The nursery has not been in operation since establishment due to a number of limitations
- The greenhouse nets are already getting out of shape and will require fixing prior to use
- NAMBAORD advised that the UNDP has approved a budget to further the project
- The garden was initially established prior to training conducted
- Members feel that they require training such as project management, and nursery management
- Currently they require sprayers for weed and pest control
- They have discovered that the holes made for seedlings would be too small for tomatoes and green pepper
- They feel they received information a bit late when the nursery was already established
- The members request for a second chance in terms of financial and technical support to raise the otherwise lost hope.

MALAMLELA PRIMARY WATER HARVESTING

Date: 18/05/2016

Present:

1. **Mrs. Malambe**
2. **Douglas Mnisi**
3. **Nomvula Dube**
4. **Sbongile Dlamini**
5. **Phineas Mazibuko**
6. **Willie Mvubu**

Proceedings:

- There are 220 children with 130 boys and 90 girls
- Construction was done with groups of 10 and was constructed within 10 days working from 8:00hrs till 12:00 hrs daily.
- UNDP provided material.
- A borehole was dug but it I not functional.
- Rainwater harvesting is functioning properly but shortage of rain has resulted in lack of water in the tank
- There are pipe blockages.
- The pump is not working and there is a problem of water supply due to low yield. The member believed their pump and cable was taken by the contractor and never returned but was later found in Principals office.
- Trees supplied by UNDP could not grow due to shortage of water.
- World water day was celebrated at the school and all equipment was functional by then
- The community hopes to be included in the current SWSC water supply scheme proposed for Mbuluzi Dvokolwako.
- Members not sure why there is all of a sudden a poor water yield from the borehole if water resources assessments was conducted prior to establishing the borehole.
- There are 10 tanks full of water but there is a challenge of worms.
- Option B I needed to boost the Tank supply.
- There is a challenge of pipe blockages suspected to be caused by heavy soils on top of a not so strong a pipe material.

EBULANDZENI PRIMARY SCHOOL WATER HARVESTING

Date: 19/05/2016

Present:

1. Mrs. Nxumalo: Principal
2. Mr. Ndlovukazi: Chairperson
3. Mrs. Tsabedze: Member

Proceedings

- The school has 205 children. 85 girls and 120 boys.
- Construction went well, tanks were provided,

- Water is of great help and children's tummy problems have reduced.
- The project started in Nov / December 2014 when the school approached the Ministry of Education and Training about the difficulties faced as a result of water shortages as well as failure to implement agriculture related practical.
- The school feeding scheme was affected by shortage of water and moreover, children could not wash hands after using toilet or before eating.
- The children were therefore asked to bring a 2litre of water daily for cooking and washing of hands and drinking but the water was from unprotected sources.
- For cleaning purposes the children were sent to the nearest water source but at some point their safety became compromised,
- Water shortage was also a problem during parents meetings
- The nearest water source was an earth dam located about 3-4km away.
- Qualified teachers were not keen to come and teach at the school because of lack of water
- A misunderstanding ensued between a teacher and the school committee about handling of material as teacher did not understand why she should report to committee when material and project was her baby after she was selected by children and project team to lead project. She also believed that since the trees were planted during school holidays while she was away, she was stripped of her powers.
- The UNDP project provided 1 borehole and 8 tanks. 3x 10 000L and the rest are 5 0000L and a smaller one for hand washing after using the toilet.
- These have really helped and they have resulted I reduced tummy and skin problems and cases of children absconding to seek medical attention. An interest from qualified teachers has increased and they are now keen to come and teach at the school.
- The remaining part is the sanitation part where the school has a total of 6 pit latrines for the 205 children which may defeat the purpose of proper water and sanitation hygiene

MBASHENI PRIMARY WATER HARVESTING

Date: 19/05/2016

Present:

1. Mrs. Cindzi: Chairperson
2. Mrs. Malambe: Member
3. Mr. Mngomezulu: Member
4. Mr Ndlela: Umphakatsi Representative
5. Mrs. Bhembe: Principal

Proceedings:

- There was no nearby reliable source of water but a faraway problematic borehole
- Community members helped in the construction of the water harvesting facilities
- UNDP provided training on water harvesting as the community was blank on what that meant
- After the completion of the project the members have adopted the idea at household level and are encouraging other to consider it
- The school would not be opened without this project as water was a huge problem
- Currently the tanks are full and the hope is that the water would last until end of the second term
- The severe drought faced resulted in trees dying, the school could not be cleaned
- The existing borehole is 15 years old and is problematic

- The 5 000 litres tank is filled within 24hrs
- There are 7 tanks 5 000Lwhich last a year
- The community water supply I now in shortage due to stealing of water by upstream communities
- **Future Plans**
- The disability building require to harvest water and every other building in the school
- Budget for borehole maintenance and tank is in place

Annex 6: List of Documents Reviewed

- GEF Project Information Form (PIF)
- Project Document (Pro-Doc)
- Quarterly and Annual Progress reports
- Annual Project Implementation Reports (APR/PIR)
- Mid-Term Review Report with the Management Response
- All technical reports produced by the project
- All sites handover reports
- Project Impact Review Report
- Quarterly and Annual financial reports
- Annual plans and budgets
- Audit Reports
- Field Monitoring Reports
- Established MOU/A
- UN Development Assistance Framework (UNDAF) 2011-2015
- UNDP Country Programme Document (CPD) 2011-2015
- GEF Focal Area Strategic Objectives

Annex 7 : Evaluation Consultant Agreement Form

Annex 8: Annexed in a separate file: TE audit trail