PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: FULL SIZE PROJECT
THE SPECIAL CLIMATE CHANGE FUND

Submission Date: April 26, 2010, May 18, 2010

PART I: PROJECT IDENTIFICATION

GEF PROJECT ID[1]: **PROJECT DURATION: 4 YEARS**
GEF AGENCY PROJECT ID: 3603
COUNTRY (IES): Swaziland
PROJECT TITLE: Adapting national and transboundary water resource management in Swaziland to manage expected climate change.
GEF AGENCY (IES): UNDP,(select), (select)
OTHER EXECUTING PARTNER(S): Department of Water Affairs, Ministry of Natural Resources and Energy, with Ministry of Tourism and Environment (Dept of Meteorology) & Ministry of Agriculture (SWADE).
GEF FOCAL AREA (S)[2]: SCCF

INDICATIVE CALENDAR*	
Milestones	**Expected Dates mm/dd/yyyy**
Work Program (for FSP)	April 2010
CEO Endorsement/Approval	May 2011
Agency Approval Date	June 2010
Implementation Start	July 2011
Mid-term Evaluation (if planned)	July 2013
Project Closing Date	July 2014

A. PROJECT FRAMEWORK

Project Objective: To promote the implementation of national and transboundary integrated water resource management that is sustainable and equitable given expected climate change.

Project Components	Indicate whether Investment, TA, or STA[b]	Expected Outcomes	Expected Outputs	Indicative GEF Financing[a]		Indicative Co-Financing[a]		Total ($) c =a + b
				($) a	%	($) b	%	
1. Promoting informed and inclusive national dialogue around water needs, vulnerability to climate change and water allocation in Swaziland among productive and domestic uses.	TA/STA	Informed and inclusive national dialogue around vulnerability to climate change and water allocation in Swaziland among productive and domestic uses.	1. Information on community views on water needs and vulnerabilities with regards to climate change gathered in a coordinated manner by Ministry of Agriculture and NGOs under SWADE coordination, as national service delivery agent for designated areas. 2. Information developed and disseminated to raise awareness of communities to expected impacts of climate change and to solicit information on preferred adaptation responses. 3. Policy analysis generated on CC	650,000	25	2,000,000	75	2,650,000

[1] Project ID number will be assigned by GEFSEC.
[2] Select only those focal areas from which GEF financing is requested.

			impacts in the water and agricultural sectors and potential response options, and implications for transboundary water management. 4. National platform/coordinating mechanism established to disseminate and discuss bottom-up and top-down analysis. 5. National policy dialogues raise awareness of the potential climate change risks reduction benefits of the draft National Water Policy to promote the adoption of the draft National Water Policy. 6. Knowledge products for policy makers developed and disseminated on potential climate change risks and response options in the water and agricultural sector. 7. Collaborative partnerships between MET Service and policy makers established to ensure updated climate information informs national policy dialogues on water management, agriculture and disaster risk management.					
2. Integrating climate risk management into the implementation of national policies and programmes relevant to integrated water resource management	TA/STA	Climate change risk management integrated into the implementation of national policies and programmes to promote adaptation on a wider scale.	1. Design of guidelines, tools and instruments adjusted to take into account climate change eg on: water permit allocation (allocation to user groups and adaptive management, flood zoning), flood disaster management, building specifications for dams/water harvesting/ hydro-electric structures. 2. Investments plans implemented by Ministry of Natural	670,000	18	3,000,000	82	3,670,000

			Resources and Energy (Water Affairs), and Ministry of Agriculture (SWADE) adjusted to take into account climate change risks.					
3. Informed negotiations on transboundary water resources management. .	TA	Negotiations on transboundary water management for the Incomati and Maputo river basins informed by climate change risk analysis.	1. Swaziland delegations to transboundary water resources management negotiations are briefed on implications of climate change on transboundary water allocation s. 2. Knowledge products on climate change impacts on transboundary water resources management and water allocation disseminated.	200,000	25	600,000	75	800,000
8. Project management				150,000	23	500,000	77	650,000
Total project costs				1,670,000	21	6,100,000	79	7,770,000

[a] List the $ by project components. The percentage is the share of GEF and Co-financing respectively of the total amount for the component.
[b] TA = Technical Assistance; STA = Scientific & Technical Analysis.

B. INDICATIVE CO-FINANCING FOR PROJECT BY SOURCE AND BY NAME (in parenthesis) if available, **($)**

Sources of Co-financing	**Type of Co-financing**	**Project**
Project Government Contribution Min of Economic Planning; MNRE; Min of Ag.	Cash; In Kind/Parallel	5,800,000
GEF Agency(ies)	(select)	
Bilateral Aid Agency(ies)	(select)	
Multilateral Agency(ies): UNDP	Cash; In-Kind	300,000
Private Sector	(select)	
NGO	(select)	
Others	(select)	
Total co-financing		6,100,000

C. INDICATIVE FINANCING PLAN SUMMARY FOR THE PROJECT ($)

	Previous Project Preparation Amount (a)[3]	**Project (b)**	**Total c = a + b**	**Agency Fee**
SCCF financing	25,000	1,670,000	1,695,000	169,500
Co-financing	20,000	6,100,000	6,120,000	
Total	45,000	7,770,000	7,815,000	169,500

[3] Include project preparation funds that were previously approved but exclude PPGs that are waiting for approval.

PART II: PROJECT JUSTIFICATION

A. STATE THE ISSUE, HOW THE PROJECT SEEKS TO ADDRESS IT, AND THE EXPECTED ADAPTATION BENEFITS TO BE DELIVERED:

PROBLEM: The Fourth Assessment report shows that the long-term trend 1900 – 2005 shows drying (longer dry seasons and more uncertain rainfall) over Southern Africa. The IPCC Third Assessment report indicates that by 2050 temperatures and rainfall over southern Africa will be 2 – 4°C higher and 10 – 20% lower than the 1961-90 baseline, respectively. Projections made in recent modelling by the University of Cape Town, South Africa (2006) coincides with this rainfall projection over most of Southern Africa. Areas receiving 400-1000 mm of rain (Swaziland is included in this) may see a drop in perennial surface drainage of up to 75% by 2050, which will have major impacts on river flow and soil water content, with potentially serious socio-economic impacts in rural areas.

As reported in Swaziland's Initial National Communication (2002), the models[4] generally predict a fall in total annual rainfall, and a change in the distribution of rainfall: summers becoming wetter (leading to flooding) and winters becoming dryer (leading to prolonged droughts). This is bourne out by experience, as documented in Swaziland's Initial National Communication. Hotter and drier conditions affect soil structure and lead to poorer water supply to crops, affecting agricultural yields. Research shows that there could be falls of 30-60% in crop yields in some areas, because subsistence agriculture (on which 70% of the Swazi population depends) is mostly rain-fed. Cash crops (contributing 8.6% to GDP) are irrigated.

With virtually all irrigation in Swaziland based on surface water, this makes irrigation vulnerable to climate change. The Government's aim is to shift agriculture from subsistence to commercial, which will require large increases in irrigation. The majority of water is allocated to the production of cash crops that may become ill-suited to changing rainfall conditions in Swaziland, eg sugar cane. There is also relatively large-scale afforestation industry for eucalyptus – a tree ill-suited to drier conditions. A mere 50% of the country's rural population (which represents 78.9% of the population – 2007 census) has access to potable water. This means that collecting, and storing water is a major undertaking for rural people, in particular women, which detracts from engaging in other productive activity. A population growth rate of 3.2% per annum implies a further significant drop in per capita water flows.

All of Swaziland's river basins are shared with South Africa and/or Mozambique. There are five major river systems in Swaziland. Four of these originate in South Africa, passing through Swaziland, back to South Africa and finally to the Indian Ocean through Mozambique. These are the Komati, Mlumati, Usutfu and Ngwavuma river basins. The fifth river basin – Imbuluzi – orginates in Swaziland and passes through to the Indian Ocean again through Mozambique. There are small streams in the Southern part of the country which form part of the Phongola Basin, most of which is in South Africa. The Lusutfu, Ingwavuma and Phongola rivers are part of the bigger Maputo River Basin which transects the neighbouring Republics of South Africa and Mozambique, and Swaziland. The Komati and Mlumati form the larger Incomati river basin which is also shared by the three countries.

Changes in flow regimes in shared water resources due to climate change will affect water availability for energy and agricultural production and domestic use in the Southern Africa region. This risk needs to managed explicitely to avoid conflict.

PROJECT INTERVENTION

The goal of the project is to ensure that national and transboundary water resources management is adapted to the expected impact of climate change. The objective of the project is to promote the implementation of national and transboundary integrated water resource management that is sustainable and equitable given expected climate change.

[4] In determining future climate scenarios, a simple climate model called MAGICC combined with a regional climate database called SCENGEN was used. A choice of some three General Circulation Models (GCMs) were employed in running the simulations based on how well they represent the current climate, their age and their resolution. These were the UKTR (UK), GFDL (US) and CCC-EQ (Canada).

Water resources management has been highlighted as an adaptation need in the Swaziland 2002 Initial National Communications, where it notes the major importance of the sector in supporting the country's socio-economic development and the need to develop robust water resource systems and techniques to incorporate climate change into long-term planning.

The proposed project areas are the Komati and Usuthu River Basins, home to the majority of the Swazi population. These river basins have been selected because of the links the project can make to the investment activities of an implementing partner with a good track record in implementing irrigation and agricultural development in the area. The project will gather community views on vulnerability to climate change and response preferences– the project's bottom-up analysis. NGOs, which are responsible for delivery of development services in project areas, will be used to gather information for this purpose. The project will also use information from a climate risk mapping financed by UNDP, supplemented by additional hydrological impact analysis as needed–the project's top-down analysis. These two sets of information on climate change risks and response options will be used to (a) promote informed and inclusive national dialogue around water needs, vulnerability to climate change and water allocation in Swaziland among productive and domestic uses, b) create political will to promote the adoption of the draft National Water Policy and strategy and to allocate resources to its implementation c) integrate climate risk management into national policies and programmes relevant to integrated water resource management and d) generate information on the implications of climate change for transboundary water management with South Africa and Mozambique for use in the co-management of transboundary water resource.

The project will work with institutions such as the Ministry of Natural Resources and Energy, Ministry of Tourism and Environment, the National Water Authority (NWA), Komati Basin Authority, Department of Meteorology (MET), Ministry of Agriculture (MOA), Swaziland Water and Agricultural Development Enterprises (SWADE) and Swaziland Environmental Authority (SEA) as well as sectoral ministries who have a stake in water resources management, to develop and disseminate climate change analysis and its implications for the draft National Water Policy and transboundary water resources management. The PPG phase will map out roles and responsibilities of these various stakeholder groups in the project.

The project will be executed by the Department of Water Affairs (Ministry of Natural Resources and Energy), which will work closely with the Ministry of Tourism and Environment and Department of Meteorology. Executing partners will be the Ministry of Agriculture, particularly the extension department, and the Swaziland Water and Agricultural Development Enterprise (SWADE) that will coordinate the NGOs on the ground.

The project will follow the adaptive capacity and policy-based approaches to adaptation as outlined in the UNDP Adaptation Policy Framework.

ADAPTATION BENEFITS

The project will deliver adaptation benefits in relation to water resources management that is sustainable in the face of expected climate change and the protection of livelihoods from the effects of climate change on water resources, by a) developing policy response options derived from community level and macro-level analysis on risks and b) developing tools for equitable water resources management that is sustainable in the face of climate change and c) adjusting sectoral investment plans on the water and agriculture The project will contribute to tripartite negotiations on water allocation between Swaziland, and its neighboring countries who share the same water resources: Mozambique, South Africa and Swaziland. The project will generate benefits in relation to MDGs 1 on reducing poverty and hunger.

B. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH NATIONAL/REGIONAL PRIORITIES/PLANS:

The Poverty Reduction Strategy and Action Programme (PRSAP) (2007) sets out a goal of cutting poverty by 50% by 2015 and eradicating it by 2022. A central plank in the PRSAP is to increase agricultural productivity and production, eventually commercialising all agricultural production. To this end, the Government has committed to identifying suitable areas for water development and irrigation, a minimum of 500 ha per region (amounting to an overall minimum of 2000 ha); four earth dams will be built every year. Water harvesting will be promoted. The PRSAP does not explicitly acknowledge climate change risks, although it does recognize that the weather has become erratic.

The draft National Water Policy will provide an enabling environment for the overall IWRM/WE undertaking, including the decentralization of the framework/policy provisions on the sustenance of transboundary waters. The country has nearly completed the development of its national Integrated Water Resources Management/Water Efficiency (IWRM/WE) Plan under the leadership of the Global Water Partnership Country Water Partnership, which will be linked to the National Water Master Plan. The 2003 Water Act, and its draft National Water Policy, are also silent on climate change.

Other policy documents such as the Initial National Communication highlight the vulnerability of the water and agriculture sectors to climate change, and the importance of agriculture to overall development. The Comprehensive Agriculture Sector Policy (2007) and the National Food Security Policy (2007) highlight that adaptation strategies will be necessary to enhance food security, agricultural production and livelihoods, but lack the detail of what to do.

The sharing of water resources between Mozambique, South Africa and Swaziland is codified in the Incomati and Maputo watercourses agreement (2002) for which meetings are convened on quarterly basis. It stipulates that the three countries shall coordinate their management activities by:

- the exchange of information on their respective experiences and perspectives;
- the coordination of management plans, programmes and measures;
- committing to develop towards improvement of efficiency and rational use of water and its conservation and to promote more efficient water use through adopting better available technology.

Flow regimes have been determined, and any abstractions of water from the Incomati or Maputo watercourses, regardless of the use, must be in conformity with these flow regimes. The flow regimes were established on the basis of supply factors such as geographic, hydrological and climatic conditions (historic), and demand factors such as the need to ensure sufficient quantity and quality. On droughts and floods, the Parties agreed to undertake to develop measures to mitigate the effects of these. Parties also agreed to exchange information relevant to planning, development and management of the two shared watercourses.

Reference projects that are included in the Agreement include: Increased irrigation development in the Komati River catchment, and increased irrigation development in the Usuthu River catchment – the two focus areas for this proposed project.

The project is, therefore, fully in line with the national priorities of Swaziland as it will 1) contribute to the achievement of its poverty reduction goals, 2) promote the adoption and implementation of the National Water Policy, resulting in the improved IWRM practices and reduced climate change vulnerability through better management and 3) contribute to mainstreaming the climate change risk management into the regional discussions and negotiations for the transboundary water resources, to which the country is committed.

Swaziland ratified the UNFCCC in October 1996.

C. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH SCCF ELIGIBILITY CRITERIA AND PRIORITIES:

Country-drivenness: The project is fully in line with the national priorities of Swaziland as it will 1) contribute to the achievement of its poverty reduction goals and strategies, 2) promote the adoption and implementation of the National Water Policy, resulting in the improved IWRM practices and reduced climate change vulnerability through better management and 3) contribute to mainstreaming the climate change risk management into the regional discussions and negotiations for the transboundary water resources, to which the country is committed.

Cost-effectiveness: Investing in climate risk and adaptation analysis and mainstreaming is cost effective because the alternative, the costs of following Business-as-Usual in Swaziland, are likely to be high. Southern Africa is due to become drier according to all GCMs, which will place an additional stress on transboundary water management, potentially leading to conflict between countries and compromising livelihoods. Cost effectiveness analysis of the possible response options will be undertaken will be undertaken in the PPG phase. Cost-effectiveness will be assessed according to the guidance in GEF/C.25/1 (on cost effective analysis in GEF projects).

Catalytic nature of work: The project has a co-financing ratio of 19:81, which is well-within that required for the SCCF. Some of the co-financing is a cash commitment by the Govt of Swaziland. On the substantive level, the project is aiming

to adjust regulatory tools and policies for water resources management that will catalyse adaptation action by the private sector.

Takes into account national communications and other relevant studies and information: Water resources management has been highlighted as an adaptation need in the Swaziland 2002 Initial National Communications, where it notes the major importance of the sector in supporting the country's socio-economic development and the need to develop robust water resource systems and techniques to incorporate climate change into long-term planning. The UNDP recently supported more detailed climate risk mapping on water resources in Swaziland. The results of this will be taken forward in the project.

Addresses the most vulnerable: There are high levels of poverty and therefore vulnerability to climate change in Swaziland. 70% of the Swazi population depends on subsistence agriculture and livestock, and only 30% of households have enough to eat. 69% of the population are bordering or below the international defined poverty line, and 20% are dependent on food aid. Production is concentrated on maize and agricultural yields are low. The HIV/AIDS prevalence rate is the highest in the world: 42.6%. Due to HIV/AIDS a significant amount of land lies idle – around 15% of homesteads do not cultivate their land. The proposed river basins are home to the majority of the Swazi population. The project will focus on water resources management, and agricultural development.

Capacity strengthening: The project will support capacity building, including institutional strengthening, constituency building, and awareness raising around the likely implications of and changes brought on by climate change. Adaptation measures will be based on the best possible information on risks, that has been supported to a large extent though UNDP. Activities will focus on prevention of impacts through sustainable water resources management that is equitably allocated among all user groups.

D. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

The project will contribute to the Poverty Reduction and HIV/AIDS programme of the UNDP cooperation framework 2006 – 2010 to reduce the poverty incidence from 69% to 52% by the UNDAF target of 2010. Part of the focus for UNDP is to support the implementation of the PRSAP through the identification of sectoral programmes and projects, local poverty initiatives, and the creation of an enabling environment, as well as supporting the integration of environmental concerns and commitments into development planning. The project will usefully contribute to this programme by addressing the climate-environment causes of poverty together with the Disaster Risk Reduction (DRR) project also supported by UNDP.

The project will also be well coordinated with other initiatives supported by UNDP. UNDP supported a climate change risk mapping exercise from core funds, complementary to the work of the Second National Communications. The risk mapping produced information on how projected climate change may impact surface water. The project will take this forward in looking at how flow regimes could be affected. In addition, UNDP, through funding from Bureau for Crisis Prevention and Recovery (BCPR), is supporting the Disaster Risk Reduction (DRR) project that aims to strengthen an integrated and coordinated comprehensive response to cyclical disaster such as drought, wind/hailstorm and disease out breaks.

The PPG phase will explore how this project can link to the activities of the BCPR and other external financing sources.

E. DESCRIBE THE ADDITIONAL COST REASONING

On-going water and land management (agriculture and water management/ irrigation development) programmes do not specifically address climate change adaptation. Building on the existing national programmes, this project will support the additional cost of ensuring that climate change risk management is integrated into key sector policies, systems and practices through the design and implementation of integrated water resources management and innovative policy tools such as tradeable permits. The implications of climate change on the Incomati and Maputo water sharing agreements will be disseminated in government, and in particular among those officials attending the Tripartite Permanent Technical Committee (TPTC) meetings. The adaptation financing will leverage government baseline financing for water resources of over $3 million (2007/8). The government has also committed $200,000 per year for four years as co-finance to the project. In addition, investments to be made by SWADE amount to 2.8 billion Emalangeni (US$280 million). The additional cost reasoning in relation to the outcomes is as follows:

Outcome 1: Informed and inclusive national dialogue promoted around water needs, vulnerability to climate change and water allocation in Swaziland among productive and domestic uses.

Baseline

Currently there is no mainstreaming of adaptation into national development plans, and little evidence relating to the benefits from following different adaptation measures – essential for making the case for mainstreaming climate change adaptation into national development plans,

The PRSAP (2007) the 2007 National Programme on Food Security and the 2003 Water Act are silent on climate change, even though they include ambitious targets to increase agricultural productivity and production and for agricultural water development. The Swaziland MDG Report for 2007 observes that there is no adaptation system in place to mitigate climate change impacts even though the consequences of the phenomenon are noted. This is in contrast with a number of other policies such as the Comprehensive Agriculture Sector Policy (2007) and the National Food Security Policy (2007) which highlight that an adaptation strategy will be necessary to enhance food security, agricultural production and livelihoods.

No systematic work has been undertaken to address the impacts of climate change on sectoral investments and implications for fiscal and regulatory policy, and conversely, the extent to which existing policies exacerbate vulnerability to climate change. Although the National Communications process provides foundation support for developing a long-term climate change adaptation policy, the Second National Communications covers a multitude of sectors as well as mitigation policy, so support for developing adaptaion knowledge and mainstreaming is necessarily limited. As a contribution to further understanding of what climate change will mean for Swaziland's economy, UNDP is supporting a climate change risk mapping exercise from core funds, complementary to the work of the Second National Communications.

Swaziland has established policy processes that the project can inform and feed into. The Government of Swaziland has already gazetted the establishment of the River Basin Authorities (RBA), as provided for in the 2003 National Water Act. These are structures at grassroots level that will work with both the Department of Water Affairs and other line ministries to adopt IWRM at catchment level. The necessary processes and mechanisms for information flow have already been established in the Komati River Basin. To strengthen the processes the Country Water Partnership has already been tasked with supporting the implementation of IWRM. The partnership is developing a Master Plan that will have an action plan for IWRM and which intends to address climate change impacts. Once the Master Plan has been adopted the project would establish areas of cohesion and complementarities, particularly in building the necessary capacities and competencies for community members/groups schemes, RBA, Department of Water Affairs and MET and other line ministries.

Swaziland Water and Agricultural Development Enterprise (SWADE), falling under the Ministry of Agriculture, is mandated by Government "to facilitate the planning and implementation of the Komati Downstream Development Project and the Lower Usuthu Smallholder Irrigation Project, and any other large water projects that Government may assign from time to time**."** In practice this means:

1. Promoting participation of smallholder farmer organizations in irrigated agriculture and development of other enterprises as part of poverty eradication program for rural areas; and
2. Enhancing private sector development through the active participation of small and medium enterprises (SMEs) in agricultural development.

SWADE works with and through NGOs.

Adaptation alternative

SWADE will collect views of community vulnerability to climate change and implications for a) productive uses of water and b) agricultural investment plans. This will be complemented by information from a climate risk mapping financed by UNDP, supplemented by additional climate risk analysis as needed. This improved evidence on the costs of expected climate change impacts on water, productive uses of water and economic growth and adaptation options will be used to create political will to promote the approval and adoption of the draft National Water Policy and strategy. The project will promote national policy dialogue on climate change risks to water availability, productive and domestic uses, by convening targeted meetings and workshops to raise awareness among communities on climate change risks and

vulnerabilities, disseminating knowledge products, developing/strengthening a national platform for inter-sectoral coordination and learning and developing government-led proposals for applied policy research. The aim will be to get the National Draft Water Policy adopted so the IWRM can begin implementation across the economy, which will help to start the process of adaptation of the Swazi economy to make its longer term economic growth less vulnerable to climate change. Options for future water allocation regimes will be assessed and discussed. The project will put into place a policy process that should lead to the preparation of a national adaptation strategy and a prioritization of adaptation options. This will prepare the ground for accessing additional adaptation financing.

The project will use established mechanisms for policy dialogue which comprehensively represent the interests of those affected by climate change. NGOs, which are responsible for delivery of development services in the Komati and Usuthu river catchments, will gather information on water needs and vulnerability with regards to climate change and implications for the Basins' investment strategy. The project will also work with governing institutions such as the National Water Authority, as well as sectoral ministries who have a stake in water resources management, to develop and disseminate climate change analysis and its implications for the draft National Water Policy. The PPG phase will map out roles and responsibilities of stakeholders in the project.

Outcome 2: Climate change risk management integrated into national policies and programmes to promote adaptation on a wider scale, primarily in water allocation.

Baseline

The current legislation is the 2003 Water Act which sets out a decentralized structure of decision-making and provides for water allocation using permits. The draft National Water Policy builds on the 2003 Water Act by introducing the following concepts: meeting basic human needs; allocative efficiency; water pricing; IWRM implemented at the river basin level; and the need for demand management, including efficient irrigation. The next step would be to develop IWRM plans at a river basin level – led by the Country Water Partnership.

Recognised challenges in implementing the draft National Water Policy, which SCCF funding would help to address, using climate change as a driver, include:

- Financial resources to establish and activate the decentralized structure required to meet the goals of the policy and supporting legislation and strategies;
- Creating the political will to change conventional wisdom and familiar practice;
- Education of previously excluded stakeholders to meaningfully participate in decision-making so that water allocation fully reflects societal needs and preferences;

Most agricultural development and agricultural water investments are made through the Ministry of Natural Resources and Energy: Department of Water Affairs and Ministry of Agriculture: SWADE. SWADE is currently implementing the *Komati Downstream Development Project (KDDP)* and the *Lower Usuthu Small-holder Irrigation Project (LUSIP)* – part of the Maputo River Basin. Its mandate is to facilitate sustainable socio-economic development through integrated water management in areas designated by government falling in the Lowveld and dry Middleveld. A total of 6,000 ha (with 3,500 ha already completed) is under the KDDP and 6,500 ha under LUSIP Phase I, with an aim to benefit 20,000 and 18,000 people respectively. The estimated total costs for LUSIP Phase I comprising on and off-channel storage reservoir, a series of canals, secondary distribution systems and the development of 6,500 ha of irrigation is estimated at 1.6 billion Emalangeni (c. USD160 million), to be completed by 2012. Water feeding the KDDP comes from an on-stream storage dam construction (Maguga dam) at a cost of 1.2 billion Emalangeni (c. USD 120 million). Capacity building of rural communities will be undertaken to enhance competencies and skills in irrigated agricultural crop and livstock production. Infrastructure development and environmental management are an integral part of downstream activities. The revenues generated by agriculture activities under the KDDP have been increasing steadily since 2006, reaching close to 90 million Emalangeni (c. USD9 million) in 2008, mainly through sugar grown by rural farmers.

In addition, the Government has committed to developing integrated irrigation schemes covering 500 ha in each of the four regions of the country (2000 ha overall) and will be complemented with strategically positioned four earth dams every year.

Adaptation alternative

Through evidence generated by the project on climate change risks to the water sector and associated implications for agricultural development (Outcome 1), the project will help to mainstream adaptation into major water and agricultural policies. The project will leverage MNRE and Ministry of Agriculture budgets to ensure that agricultural and agricultural water investments are protected against the impacts of climate change. The project will influence the design of the policy tools and measures to implement the draft National Water Policy. The PPG phase will scope out policy processes that the project can feasibly influence.

The draft National Water Policy sets out a number of useful tools for allocating and managing water and rainfall. Climate change effects on water and temperature will affect how these tools are designed and implemented, but yet the draft National Water Policy does not acknowledge climate as a risk. Changing levels of water availability due to climate change will affect the design and implementation of the following tools and interventions:

- Permit allocations to different user groups and according to a rainfall zone map;
- Flood zoning;
- Preparation for water-related disasters;
- Construction specifications and location of dams/water harvesting structures/ hydro-electric facilities;
- Investments and government effort devoted to promoting water efficiency.

The project will work with the Department of Water Affairs to integrate climate change impacts analysis into the development of policy tools that will implement the draft National Water Policy. The PPG phase will scope out the details of this work.

<u>Outcome 3: Transboundary negotiations on water allocation in the Komati basin informed by climate change risk analysis.</u>

Baseline

Currently the high level TPTC, made up by Mozambique, South Africa, and Swaziland Governments officials, meets on a quarterly basis to provide guidance on the shared river basins priorities and integrated undertaking. Swaziland has bilateral Joint Water Commissions with Mozambique and South Africa made up of top government officials (including Permanent Secretaries), where Swaziland is represented by MNRE, which discusses shared water resources development interventions and management.

The sharing of water resources between Mozambique, South Africa and Swaziland is codified in the Incomati and Maputo watercourses agreement (2002) for which negotiations are convened quarterly. It stipulates that the three countries shall coordinate their management activities by:

- the exchange of information on their respective experiences and perspectives
- the coordination of management plans, programmes and measures
- committing to develop towards improvement of efficiency and rational use of water and its conservation and to promote more efficient water use through adopting better available technology.

Flow regimes have been determined, and any abstractions of water from the Incomati or Maputo watercourses, regardless of the use, must be in conformity with these flow regimes. The flow regimes were established on the basis of supply factors such as geographic, hydrological and observed climatic conditions, and demand factors such as the need to ensure sufficient quantity and quality. On droughts and floods, the Parties agreed to undertake to develop measures to mitigate the effects of droughts and floods. The Parties also agreed to exchange information relevant to planning, development and management of the two shared watercourses.

Reference projects that are included in the agreement include: Increased irrigation development in the Komati River catchment, and increased irrigation development in the Usuthu River catchment. These two projects are under the facilitation of SWADE.

Climate change is not mentioned in the agreement, but it is likely to be a serious limiting factor on water availability in these two river basins.

Adaptation alternative
Assessments will be made on the implications of climate change on the transboundary management of the Incomati and Maputo river basins, eg implications on flow regimes. The PPG phase will scope the priority transboundary water management questions that the project should inform.

Based on outputs from Outcome 1 and 2, the project will prepare briefings and other knowledge products for dissemination in the TPTC meetings. The project will raise the awareness and try to develop champions for adaptation action among the Swazi delegation of the climate change risks and vulnerability to promote the mainstreaming of the climate change issues into regional negotiation on the management of the shared water resources.

The project will contribute learning, via its monitoring and evaluation framework, to the Adaptation Learning Mechanism and the IW: LEARN activities, in particular on the question of adaptation financing needs, and on efficient ways of allocating public financing to adaptation. The most important of these questions include: identifying feasible and replicable adaptation options, assessing the costs and benefits of adaptation, finding ways to ensure financial sustainability, sequencing of adaptation measures, exploring the catalytic role of public policy and financing. Regional and international networks will be identified and brought into the project as partners to get involved in these learning and information sharing activities.

F. INDICATE RISKS THAT MIGHT PREVENT THE PROJECT OBJECTIVE(S) FROM BEING ACHIEVED, AND OUTLINE RISK MITIGATION MEASURES:

IDENTIFIED RISKS	*MITIGATION MEASURES*
Environmental: • Recurrent drought	• The project is about adaptation of water sector policy and investments to climate change impacts, including droughts.
Political: • Lack of political will both upstream level (e.g., parliamentarians) and at local level (including traditional leaders). • Disabling environment due to delayed or no approval of the National Water Policy by Parliament pre commencement of the project	• Appropriate participatory consultation processes will be one of the means of encourage adaptation. Due consideration will be given to involving traditional governance structures in an appropriate manner. The PPG phase will explore this in detail. • Develop champions in Govt to promote adaptation. Getting the information developed and developing the right messages, as well as dissemination in the appropriate formats will be the ways that the project will aim to get the National Water Policy adopted. In the event that the draft National Water Policy is not implemented during the course of the project, the project will have developed information and tools that will still be relevant to policy implementation further down the line;
Operational: • Lack of coordination amongst stakeholders re CC	• Pre-project appraisal will be carried out with all the key ministries and stakeholders, particularly with the MOAC and Department of Water Affairs to establish sustained ownership and support for the project. • UNDP supported the establishment of a national forum comprised of key stakeholders that will generate critical information to inform national development interventions. This is complemented by the UNDP – BCPR supported Disaster Risk Reduction (DRR) project that is aimed at strengthening resilience of communities to disasters that include CC-induced drought. • Advocacy and networking with highest leadership to prioritise climate change impacts and promote awareness on the direct and indirect effects on national development interventions.

NOTE: More specific risks and mitigation measures in relation to the demonstration projects will be scoped during the PPG phase.

G. DESCRIBE, IF POSSIBLE, THE EXPECTED COST-EFFECTIVENESS OF THE PROJECT. IF COST EFFECTIVENESS IS NOT PRESENTED, OUTLINE THE STEPS THAT PROJECT PREPARATION WOULD UNDERTAKE TO PRESENT COST-EFFECTIVENESS AT CEO ENDORSEMENT: Investing in climate risk and adaptation analysis and mainstreaming is cost effective because the alternative: the costs of following Business-as-Usual in Swaziland are likely to be high. Southern Africa is due to become drier according to all GCMs, which will place an additional stress on transboundary water management, potentially leading to conflict between countries and compromising livelihoods. Cost-effectiveness will be assessed according to the guidance in GEF/C.25/1 (on cost effective analysis in GEF projects).

I. JUSTIFY THE COMPARATIVE ADVANTAGE OF GEF AGENCY: UNDP's role in Swaziland, in line with its mandate set internationally, is to support the implementation of the national poverty reduction strategy. This includes supporting the integration of environment into development planning, and building capacity to reduce the risks of disasters. UNDP is already helping the Government to consider how climate change might impact on economic growth through the commissioning of an impacts study. In helping the government manage climate change risks, UNDP is able to draw on its experience in helping African governments develop adaptation projects: Coping with drought adaptation projects in Ethiopia, Kenya, Mozambique and Zimbabwe under implementation; Eritrea and Niger: currently at project design stage, and Guinea Bissau, Burkina Faso, Lesotho, Zambia and Mozambique: all at concept formulation. The focus across all these projects is on water, crop and livestock management. Further, UNDP has an extensive experience in supporting governments on the promotion and implementation of IWRM at both national and regional levels and on regional discussions/negotiations for the management of shared waters.

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY (IES)

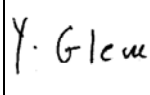
A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):

(Please attach the country endorsement letter(s) or regional endorsement letter(s) with this template).

NAME	POSITION	MINISTRY	DATE
Jameson D Vilakati 	Executive Director, Swaziland Environment Authority & GEF Operational Focal Point	Ministry of Environment and Tourism.	April 2, 2009

B. GEF AGENCY (IES) CERTIFICATION

This request has been prepared in accordance with GEF policies and procedures and meets the GEF criteria for project identification and preparation.

Agency Coordinator, Agency name	Signature	Date	Project Contact Person	Telephone	Email Address
Yannick Glemarec Executive Coordinator UNDP/GEF		May 18, 2010	Akiko Yamamoto Regional Technical Advisor UNDP/GEF	+27 12 354 8125	akiko.yamamoto@undp.org