



ADAPTATION FUND

AFB/PPRC.12/5
17 June 2013

Adaptation Fund Board
Project and Programme Review Committee
Twelfth Meeting
Bonn, 1-2 July 2013

Agenda item 4 b)

PROPOSAL FOR SOUTH AFRICA (1)

I. Background

1. The Operational Policies and Guidelines (OPG) for Parties to Access Resources from the Adaptation Fund (the Fund), adopted by the Adaptation Fund Board (the Board), state in paragraph 42 that regular adaptation project and programme proposals, i.e. those that request funding exceeding US\$ 1 million, would undergo either a one-step, or a two-step approval process. In case of the one-step process, the proponent would directly submit a fully-developed project proposal. In the two-step process, the proponent would first submit a brief project concept, which would be reviewed by the Project and Programme Review Committee (PPRC) and would have to receive the endorsement of the Board. In the second step, the fully-developed project/programme document would be reviewed by the PPRC, and would ultimately require the Board's approval.

2. The Templates approved by the Board (OPG, Annex 3) do not include a separate template for project and programme concepts but provide that these are to be submitted using the project and programme proposal template. The section on Adaptation Fund Project Review Criteria states:

For regular projects using the two-step approval process, only the first four criteria will be applied when reviewing the 1st step for regular project concept. In addition, the information provided in the 1st step approval process with respect to the review criteria for the regular project concept could be less detailed than the information in the request for approval template submitted at the 2nd step approval process. Furthermore, a final project document is required for regular projects for the 2nd step approval, in addition to the approval template.

3. The first four criteria mentioned above are:

1. Country Eligibility,
2. Project Eligibility,
3. Resource Availability, and
4. Eligibility of NIE/MIE.

4. The fifth criterion, applied when reviewing a fully-developed project document, is:

5. Implementation Arrangements.

5. In its 17th meeting, the Board decided (Decision B.17/7) to approve "Instructions for preparing a request for project or programme funding from the Adaptation Fund", contained in the Annex to document AFB/PPRC.8/4, which further outlines applicable review criteria for both concepts and fully-developed proposals.

6. Based on the Board Decision B.9/2, the first call for project and programme proposals was issued and an invitation letter to eligible Parties to submit project and programme proposals to the Fund was sent out on April 8, 2010.

7. According to the Board Decision B.12/10, a project or programme proposal needs to be received by the secretariat no less than nine weeks before a Board meeting, in order to be considered by the Board in that meeting.

8. The following project concept titled "Building Resilience in the Greater uMngeni Catchment, South Africa" was submitted for South Africa by the South African National

Biodiversity Institute (SANBI), which is a National Implementing Entity of the Fund. This is the first submission of the project concept. It was received by the secretariat in time to be considered in the 21st Adaptation Fund Board meeting. The secretariat carried out a technical review of the project proposal, assigned it the diary number ZAF/NIE/Water/2013/1, and completed a review sheet.

9. In accordance with a request to the secretariat made by the Board in its 10th meeting, the secretariat shared this review sheet with SANBI, and offered it the opportunity of providing responses before the review sheet was sent to the PPRC.

10. The secretariat is submitting to the Project and Programme Review Committee the summary and, pursuant to Decision B.17/15, the final technical review of the project, both prepared by the secretariat, along with the final submission of the proposal in the following section.

Project Summary

South Africa – Building Resilience in the Greater uMngeni Catchment, South Africa

Implementing Entity: SANBI

Programme Execution Cost: USD 695,875.00

Programme Total Cost: USD 7,325,000.00

Implementing Fee: USD 622,625.00

Financing Requested: USD 7,947,625.00

Programme Background and Context:

The proposed project would aim to reduce climate vulnerability and increase the resilience and adaptive capacity in rural and peri-urban settlements and small-scale farmers in productive landscapes in the uMgungundlovu District Municipality (UMDM), KwaZulu Natal Province, South Africa, that are threatened by climate variability and change, through an integrated adaptation approach. The majority of the population in the province of KwaZulu-Natal lives in rural or peri-urban areas, often in informal settlements; UMDM has a population of one million people, with a high percentage of poverty, HIV/AIDS prevalence and a very high proportion of female-headed households.

Component 1: Early warning systems (USD 805,750)

Component 1 would seek to refine and extend existing early warning systems for weather, flooding and fire danger, and long term drought conditions, so that they are used to support, in a timely manner, local communities to prepare for climate-induced stresses, and to expand the role of the existing municipal disaster management to include a more proactive approach that includes risk reduction and disaster prevention. This component would also facilitate the development of disaster risk protocols to support relevant authorities with processes and procedures for interpreting hydro-climatological information, and making this available to communities in accessible and user-friendly formats. These protocols would improve timely and appropriate responses to forecasting, and will empower officials to take more effective action.

Component 2: Climate-proof settlements (USD 2,893,375)

Component 2 would support existing development work being undertaken by local municipalities within the UMDM and by Umgeni Water regarding adapting basic infrastructure to improve resilience to increased frequency and intensity of flash flooding. It would also support job-creation in low-income communities through labour intensive construction methods. The project would, for instance: install or upgrade storm water drainage and related infrastructure in settlements, in order to create sustainable urban drainage systems and reduce flood-induced damage; invest in climate-proofing critical community facilities, such as schools and clinics, against storm events including lightning, hailstorms, high winds and torrential rain; and work with vulnerable households to develop ways of climate-proofing their houses; integrate adaptation responses into catchment management plans (at appropriate scales) and, where relevant, restore and protect riparian zones, wetlands and agricultural land upstream of settlements, to reduce the risks and impacts of floods and wildfire events; review existing local planning regulations in order to align these to existing and emerging disaster risks as a result of

climate change; and use vulnerability mapping, GIS and geo-processing software and community-based risk to identify appropriate locations for buildings and infrastructure.

Component 3: Climate-resilient agriculture (USD 2,490,500)

Component 3 would aim at improving the resilience of small-scale farmers, and reduce their vulnerability to existing and anticipated impacts of climate variability and change. Through training, the adaptive capacity of the provincial Department of Agriculture would be increased, and the Department would mainstream adaptation practices into its extension services. In conjunction with farmers, best practice guidelines for targeted agricultural practices would be developed. As a significant proportion of small-scale farmers are women, the project would pay particular attention to the concerns and needs expressed by this particularly vulnerable group in both project planning and implementation. Scientists, extension officers and farmers would collaboratively develop and implement farm level plans for climate change adaptation and resilience. These would include soil conservation, conservation agriculture, organic farming and irrigation. Wildland fire risk assessments and fire management planning would contribute to more effective grazing management, and to improved productivity and landscape resilience. Investments in small-scale physical infrastructure at the farm level would be planned to mitigate impacts of climate variability and change, securing water from reliable and appropriate sources (including rainfall harvesting), and providing storm shelters for livestock and harvests, where appropriate. At the same time, investments in ecosystem restoration and rehabilitation would enhance agricultural resilience to climate variability and change.

Component 4: Lessons Learnt (USD 439,500)

Component 4 would aim at disseminating adaptation lessons learnt and policy recommendations, which would facilitate up-scaling and replication. To raise awareness of effective climate risk management options, the project would document the lessons learned throughout the life of the project. Communities would be supported to share emerging lessons and develop case studies with other stakeholders. Policy recommendations and best practices would be distilled for dissemination and scaling up at the level of District municipality, in targeted sectors and beyond. This would assist in replication, further up-scaling, research, knowledge management and social learning processes. The district municipality government would develop a plan for scaling up and officially adopting best practices. Learning from adaptation planning and practice would be integrated into municipal development and spatial planning processes as well as into standards for building public facilities and homes, storm water drainage and flood-line delineation processes. In addition, the project would promote the integration of adaptation practices into relevant climate change policies in other targeted sectors in local, provincial and national planning processes.



ADAPTATION FUND

ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY: REGULAR PROJECT

Country/Region:	South Africa	
Project Title:	Building Resilience in the Greater uMngeni Catchment, South Africa	
AF Project ID:	ZAF/NIE/Water/2013/1	
IE Project ID:		Requested Financing from Adaptation Fund (US Dollars): 7,947,625
Regular Project Concept Approval Date:	n/a	Anticipated Submission of final RP document (if applicable): n/a
Reviewer and contact person:	Mikko Ollikainen	Co-reviewer(s): Franck Jesus
NIE/MIE Contact Person:	Mandy Barnett	

Review Criteria	Questions	Comments on 16 May 2013	Comments on 3 June 2013
Country Eligibility	1. Is the country party to the Kyoto Protocol?	Yes.	
	2. Is the country a developing country particularly vulnerable to the adverse effects of climate change?	Yes.	
Project Eligibility	1. Has the designated government authority for the Adaptation Fund endorsed the project/programme?	Yes: an endorsement letter has been provided.	

	<p>2. Does the project / programme support concrete adaptation actions to assist the country in addressing adaptive capacity to the adverse effects of climate change and build in climate resilience?</p>	<p>Yes. The proposal has generally described projected climate scenarios and explained how the proposed activities would relate to those. Component 1 of the proposed project would focus on early warning systems. The proposal (p. 13) explains that “a number” of such systems exist in the country, and it is not clear why the existing systems are not adequate. CR1: Please elaborate which types of early warning systems exist in the target municipality, which types of barriers exist to their adequate functioning and how the proposed project would overcome those barriers. Heavy rainfall episodes increasing with climate change may deteriorate poorly located building and infrastructure. CR2: Please clarify whether the project will include activities to develop and implement land-use planning supporting climate resilient site locations for buildings and infrastructures.</p>	<p>CR1: Addressed.</p> <p>CR2: Addressed adequately for the concept stage. Details are expected in the full proposal regarding the activities devoted to supporting the choice of appropriate location for building and infrastructure through improved land-use planning.</p>
	<p>3. Does the project / programme provide economic, social and environmental benefits, particularly to vulnerable communities, including gender considerations?</p>	<p>Yes. Generally, the proposed project would provide economic, social and environmental benefits, and considerations of particularly vulnerable communities have been taken into account.</p>	

	<p>4. Is the project / programme cost effective?</p>	<p>The project design appears generally cost-effective. As the benefits have not been quantified at the concept stage, though, it is not possible to conclusively confirm this.</p> <p>The concept refers to various types of interventions but it is not clear as to whether these represent activities that have been implemented and tested in South Africa or otherwise similar settings, i.e. to which extent they replicate functioning solutions.</p> <p>CR3: Please explain briefly for each type of activity, whether there exists experience of their use in a setting similar to the one proposed for the project, and whether that experience would be available to the project. Please provide examples wherever possible.</p>	<p>CR3: Addressed.</p>
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	<p>5. Is the project / programme consistent with national or sub-national sustainable development strategies, national or sub-national development plans, poverty reduction strategies, national communications and adaptation programs of action and other relevant instruments?</p>	<p>The proposal explains how the proposed project would be aligned with the climate change related strategies and national development policy. One of the main sectors to be supported by the proposed project is agriculture, and the proposal mentions timber and sugar cane as locally dominant crops. However, the proposal does not explain how the project would be aligned with South African sectoral policies in those areas. CR4: Please explain how the proposed project would be aligned with relevant sectoral policies, such as agricultural and forestry policies; and with land-use related policies.</p>	<p>CR4: Addressed.</p>
	<p>6. Does the project / programme meet the relevant national technical standards, where applicable?</p>	<p>Yes, the proposal has identified relevant national technical standards in a way appropriate for the concept stage.</p>	

	<p>7. Is there duplication of project / programme with other funding sources?</p>	<p>The proposal has identified other projects whose experiences and lessons it would build on. However, for some of these activities, it is not clear what exactly exists and how the project would be additional. As mentioned above (CR1) it is not clear how the project would build on existing early warning systems. Further, the concept mentions two interventions (p. 22) in which the proposed executing entity, the uMgungundlovu District Municipality has direct involvement, and which may represent overlap with the proposed project.</p> <p>CR5: Please elaborate on the content of the activities that are already in place, especially a) the small scale Expanded Public Works Programmes which are planned to test disaster risk reduction activities in vulnerable communities, and b) the development of a conceptual framework to underpin an ecological infrastructure restoration programme, and explain how the proposed project would build on and avoid overlap with these two interventions which seem to be closely related to it, and how it will go beyond existing activities to mainstream adaptation activities.</p>	<p>CR5: Addressed. The fully-developed project document should reflect, as possible, the lessons learned from the small scale pilot project on testing disaster risk reduction activities such as construction of sustainable permeable drainage systems in a steep informal settlement.</p>
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	8. Does the project / programme have a learning and knowledge management component to capture and feedback lessons?	<p>Yes, the project is proposed to include a component on knowledge management, and the plan to disseminate information created by the project is explained adequately for a project concept. However, the concept does not consistently outline which existing sources of information it would draw on as a basis for knowledge management in the beginning of the project.</p> <p>CR6: Please explain which types of sources of existing lessons learned and earlier projects implemented in the region the project would be able to draw on when developing the baseline for knowledge management.</p>	CR6: Addressed.
	9. Has a consultative process taken place, and has it involved all key stakeholders, and vulnerable groups, including gender considerations?	Yes, the concept development has been facilitated by a consultative process undertaken at various levels.	
	10. Is the requested financing justified on the basis of full cost of adaptation reasoning?	Yes, adequately for the concept stage.	
	11. Is the project / program aligned with AF's results framework?	Yes, adequately for the concept stage.	

	<p>12. Has the sustainability of the project/programme outcomes been taken into account when designing the project?</p>	<p>Requires clarification. While the concept has referred to certain design features of the proposed project that support sustainability, it does not explain whether the institutional beneficiaries, e.g. the District Municipality, the provincial Department of Agriculture, and the Weather Service would be able to readily uptake the project outputs without more engaging participation (e.g. training or capacity building), and whether they would be institutionally and financially able to take over the outputs and to utilize and maintain them after the project. As the proposal currently stands, few activities seem to be devoted to scaling up besides the development of a scaling up plan, reporting, sharing of experience and recommendations. It is unclear whether the aims of “shift in strategies of government officials” and “integration of climate change response measures into on-going development processes” (p. 18) can be achieved without measures that go beyond recommendations.</p>	
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		<p>CR7: Please explain, at least briefly, through which kind of institutional arrangements and with which funding the government beneficiaries of the project, or the communities, would be able to maintain and utilize the project outputs after the project's end. If necessary from financial perspective, please consider including activities to generate financing for mechanisms for maintenance and scaling up.</p> <p>CR8: Please explain why it was concluded that beyond providing recommendations, more engaging activities involving the government beneficiaries, such as training or capacity building were not considered necessary for the uptake of project outputs. If necessary, please consider including such activities. Please also consider including other activities designed to support the implementation of policy recommendation by the targeted decision makers.</p>	<p>CR7: Addressed adequately for the concept stage. Details are expected in the full proposal as to how project activities would enable to maintain project outcomes beyond the project end.</p> <p>CR8: Addressed.</p>
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<p>Resource Availability</p>	<p>1. Is the requested project / programme funding within the cap of the country?</p>	<p>Yes. SANBI has submitted to the current meeting two project concepts and two project formulation grant requests which, taken together, are still below the country cap. The project formulation grant (PFG) request submitted together with the concept is above the cap set by Adaptation Fund Board decision B.12/28 (e), which stated that for approved PFGs “a flat rate of up to US\$30,000 shall be provided, inclusive of the management fee, which cannot exceed 8.5 per cent of the grant amount”.</p>	<p>The project formulation grant has been corrected to be in compliance with Board decision B.12/28.</p>
	<p>2. Is the Implementing Entity Management Fee at or below 8.5 per cent of the total project/programme budget before the fee?</p>	<p>Yes.</p>	
	<p>3. Are the Project/Programme Execution Costs at or below 9.5 per cent of the total project/programme budget (including the fee)?</p>	<p>Yes.</p>	
<p>Eligibility of NIE/MIE</p>	<p>4. Is the project/programme submitted through an eligible NIE/MIE that has been accredited by the Board?</p>	<p>Yes.</p>	
<p>Implementation Arrangement</p>	<p>1. Is there adequate arrangement for project / programme management?</p>	<p>(n/a)</p>	

	2. Are there measures for financial and project/programme risk management?	(n/a)	
	3. Is a budget on the Implementing Entity Management Fee use included?	(n/a)	
Eligibility of NIE/MIE	4. Is an explanation and a breakdown of the execution costs included?	(n/a)	
Implementation Arrangement	5. Is a detailed budget including budget notes included?	(n/a)	
	6. Are arrangements for monitoring and evaluation clearly defined, including budgeted M&E plans and sex-disaggregated data, targets and indicators?	(n/a)	
	7. Does the M&E Framework include a break-down of how implementing entity IE fees will be utilized in the supervision of the M&E function?	(n/a)	

	<p>8. Does the project/programme's results framework align with the AF's results framework? Does it include at least one core outcome indicator from the Fund's results framework?</p>	<p>(n/a)</p>	
	<p>9. Is a disbursement schedule with time-bound milestones included?</p>	<p>(n/a)</p>	

<p>Technical Summary</p>	<p>The proposed project would aim to reduce climate vulnerability and increase the resilience and adaptive capacity in rural and peri-urban settlements and small-scale farmers in productive landscapes in the uMgungundlovu District Municipality (UMDM), KwaZulu Natal Province, South Africa, that are threatened by climate variability and change, through an integrated adaptation approach. The majority of the population in the province of KwaZulu-Natal lives in rural or peri-urban areas, often in informal settlements; UMDM has a population of one million people, with a high percentage of poverty, HIV/AIDS prevalence and a very high proportion of female-headed households.</p> <p>The project would adopt a suite of complementary project interventions, focussing on a) early warning and response systems, b) a combination of ecological and engineering infrastructure solutions specifically focused on vulnerable groups in rural and peri-urban settlements, c) integrating climate variability and change responses into agricultural practices and infrastructure, and d) disseminating adaptation lessons learnt and policy recommendations, to facilitate upscaling and replication.</p> <p>The initial technical review found that the project concept had been put together in a generally sound manner, and its formulation followed a comprehensive national consultation process.</p> <p>The initial technical review made the following clarification requests:</p> <p>CR1: Please elaborate which types of early warning systems exist in the target municipality, which types of barriers exist to their adequate functioning and how the proposed project would overcome those barriers.</p> <p>CR2: Please clarify whether the project will include activities to develop and implement land-use planning supporting climate resilient site locations for buildings and infrastructures.</p> <p>CR3: Please explain briefly for each type of activity, whether there exists experience of their use in a setting similar to the one proposed for the project, and whether that experience would be available to the project. Please provide examples wherever possible.</p> <p>CR4: Please explain how the proposed project would be aligned with relevant sectoral policies, such as</p>
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	<p>agricultural and forestry policies; and with land-use related policies.</p> <p>CR5: Please elaborate on the content of the activities that are already in place, especially a) the small scale Expanded Public Works Programmes which are planned to test disaster risk reduction activities in vulnerable communities, and b) the development of a conceptual framework to underpin an ecological infrastructure restoration programme, and explain how the proposed project would build on and avoid overlap with these two interventions which seem to be closely related to it, and how it will go beyond existing activities to mainstream adaptation activities.</p> <p>CR6: Please explain which types of sources of existing lessons learned and earlier projects implemented in the region the project would be able to draw on when developing the baseline for knowledge management.</p> <p>CR7: Please explain, at least briefly, through which kind of institutional arrangements and with which funding the government beneficiaries of the project, or the communities, would be able to maintain and utilize the project outputs after the project's end. If necessary from financial perspective, please consider including activities to generate financing for mechanisms for maintenance and scaling up.</p> <p>CR8: Please explain why it was concluded that beyond providing recommendations, more engaging activities involving the government beneficiaries, such as training or capacity building were not considered necessary for the uptake of project outputs. If necessary, please consider including such activities. Please also consider including other activities designed to support the implementation of policy recommendation by the targeted decision makers.</p> <p>The project concept had been submitted with a Project Formulation Grant (PFG) request which exceeded the maximum amount approved by the Adaptation Fund Board, USD 30,000.</p> <p>The final technical review of the project concept found that the proponent had been able to successfully address all clarification requests. The review noted that while developing the fully-developed project document, the proponent should pay attention to the following:</p> <ol style="list-style-type: none">1) The project document should explain in greater detail the activities devoted to supporting the choice of appropriate location for building and infrastructure through improved land-use planning.2) The project document should reflect, as possible, the lessons learned from the small scale pilot project on testing disaster risk reduction activities such as construction of sustainable permeable drainage systems in a steep informal settlement.3) The project document should explain in greater detail how project activities would enable to maintain project outcomes beyond the project end.
Date:	3 June 2013



ADAPTATION FUND

REQUEST FOR PROJECT/PROGRAMME FUNDING FROM ADAPTATION FUND

The annexed form should be completed and transmitted to the Adaptation Fund Board Secretariat by email or fax.

Please type in the responses using the template provided. The instructions attached to the form provide guidance to filling out the template.

Please note that a project/programme must be fully prepared (i.e., fully appraised for feasibility) when the request is submitted. The final project/programme document resulting from the appraisal process should be attached to this request for funding.

Complete documentation should be sent to:

The Adaptation Fund Board Secretariat
Email: secretariat@adaptation-fund.org

PROJECT/PROGRAMME PROPOSAL

PART I: PROJECT/PROGRAMME INFORMATION

PROJECT/PROGRAMME CATEGORY:	REGULAR PROJECT (CONCEPT)
COUNTRY/IES:	REPUBLIC OF SOUTH AFRICA
TITLE OF PROJECT/PROGRAMME:	BUILDING RESILIENCE IN THE GREATER UMNGENI CATCHMENT, SOUTH AFRICA
TYPE OF IMPLEMENTING ENTITY:	NIE
IMPLEMENTING ENTITY:	SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE (SANBI)
EXECUTING ENTITY/IES:	UMGUNGUNDLOVU DISTRICT MUNICIPALITY (UMDM)
AMOUNT OF FINANCING REQUESTED:	USD 7 947 625

PROJECT / PROGRAMME BACKGROUND AND CONTEXT:

South Africa's Second National Communication (SNC) (DEA, 2011) states that clear signs of warming and increased frequency of rainfall extremes are already evident in the country. Statistically significant temperature trends have been detected at a large proportion of stations across the South Africa, with maximum temperature extremes increasing more rapidly than minimum temperature extremes. While there are no consistent trends in terms of annual rainfall, daily rainfall intensity and dry spell duration has shown a statistically significant increase across the Southern African region (DEA, 2011). The increase in rainfall intensity has resulted in an increased frequency of flooding events (SAWS, 2013). In the eastern parts of South Africa arising trend in the intensity and frequency of convective storms has been reported (SAWS 2013). Increasing temperatures are also associated with greater risk of damaging wildfires. The increase of extreme events and associated disasters pose a threat to many South African communities, particularly the poorer communities that have been established in exposed and poorly planned locations, such as informal settlements, with low adaptive capacity. In the past decade extreme climatic events have affected vulnerable communities severely, causing loss of life and damage to infrastructure and loss of assets in affected areas.

The observed changes in extreme climate events, and the associated disasters, are projected to continue in the twenty-first century. According to the SNC, temperatures are projected to increase across South Africa, and the eastern parts of the country are

projected to experience enhanced precipitation and more intense rainfall events. Numerous climate change studies (Hewitson et al, 2005, Schulze, 2005, Thornhill et al, 2009) have indicated that the KwaZulu Natal Midlands area, within which the uMgungundlovu District Municipality (UMDM) is located, is an area of high climate change risk and is one of three climate change hotspots in South Africa, due to the warming already observed and the projected changes in climate and their impacts on people, ecosystems and economies (Stuart-Hill and Schulze, 2010).

Based on statistical downscaling of four Global Climate Models (GCMs), the UMDM Status Quo Assessment on Climate Trends and Projections (Golder Associates, 2011) found that projections indicate an increase of between 1.75 and 2.5 degrees in mean annual temperatures across the District Municipality by the middle of this century. The report further found projected increases in maximum and minimum temperatures across the District Municipality.

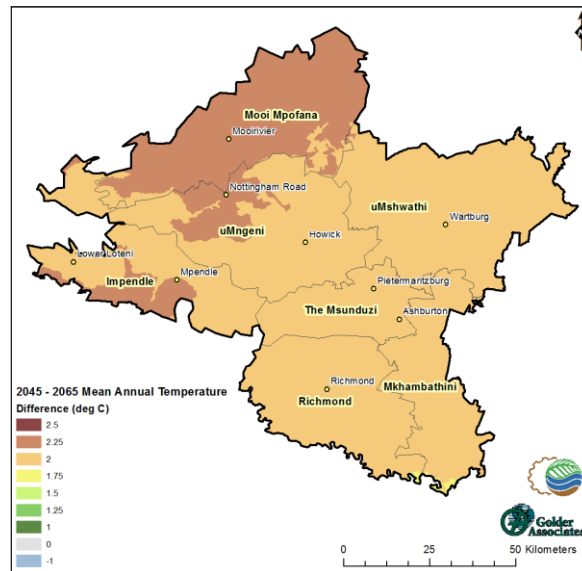


Figure 1: Projected changes in mean annual temperature into the intermediate future (using statistical downscaling of multiple GCMs) (Golder Associates, 2011:16)

The UMDM report found that rainfall projections indicate an increase in mean annual rainfall and daily maximum rainfall, as well as an increase in extreme events for most of the District Municipality. The map below illustrates how short duration extreme rainfall, associated with storms and flash flooding, is projected to increase to varying degrees across the district. Rainfall projections using global models remain uncertain for this region, with mechanistically downscaled projections indicating the potential for long term drying trends (Archer et al. 2010, South African Risk and Vulnerability Atlas). However, these drying projections do not exclude the potential for increased frequency of high rainfall and flooding events.

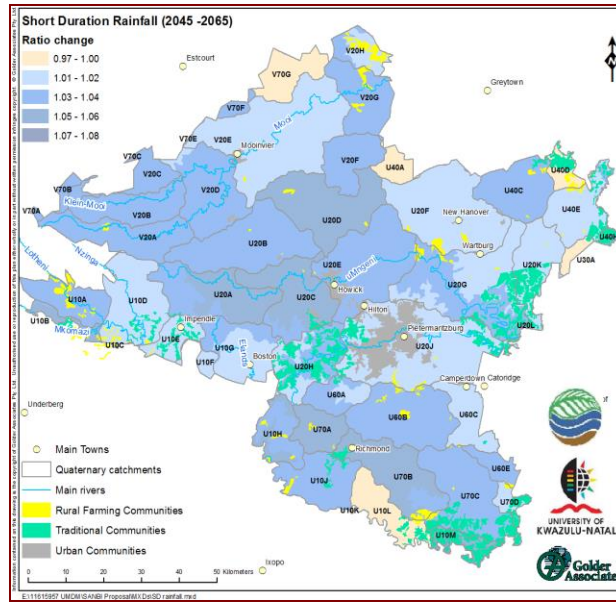


Figure 2: Projected ratio change in short duration rainfall towards the mid-century (2045 - 2065) determined using downscaling of four GCMs (CCC, CRM, ECH and IPS) (Golder Associates, 2013b)

Both the larger scale GCM projections and the downscaled projections thus indicate that the UMDM may experience a warmer future with uncertain changes in mean annual rainfall, but with an increased number of flash flooding and storm events due to an increase in short duration rainfall. With severe storms, floods and veld fires already being among the main hazards currently faced by the UMDM, the projections are of concern as they indicate an increase in the risk of wildland fire as well as risks of storms and flooding, and they do not exclude the potential for drought events.

The projections are of particular concern for the areas and populations in the District already vulnerable to these hazards due to various reasons including: low-cost and informal housing being located close to river catchments or on flood plains; housing of poor standard being built on steep hillsides; under resourced fire stations; shortage of fire hydrants or water filling points; and dense informal settlements with thatched roofs (Golder Associates, 2013a).

The projections are also a concern for agriculture in the District, with heat stress, flooding, fire and lightning, wind and hail associated with severe storms having been identified as some of the key natural threats already facing the agricultural sector (Golder Associates, 2013a). While commercial (large-scale) farmers are considered to have the capacity to some extent to adapt to climatic changes, there is concern for small-scale and subsistence farmers, who tend to lack access to information and the resources necessary to adapt.

The proposal seeks to reduce the vulnerability of local communities and small scale and emerging farmers in the uMgungundlovu District in the province of KwaZulu-Natal, South Africa to anthropogenic climate change, focusing on prevention of flooding,

management of fire and ensuring water security by combining local and scientific knowledge in an integrated approach to adaptation.

Environmental and Socio-economic Context

South Africa is a country of huge disparities of wealth: while a small minority is extremely wealthy and enjoys relatively easy access to the country's natural resources, the majority of South Africa's rural population lives in poverty with no or limited access to natural resources such as agricultural land. As a result of a combination of a slow land reform process and limited access to alternative livelihood options, the majority of the population in the province of KwaZulu-Natal lives in rural or peri-urban areas, often in informal settlements.

The project will be implemented at selected sites in the uMgungundlovu District (area: 9,513km²), one of the 11 district municipalities of KwaZulu-Natal province. The UMDM is located in the KwaZulu-Natal Midlands and comprises seven local municipalities. The main city is Pietermaritzburg, the legislative capital of KwaZulu-Natal province. The UMDM is both a Water Services Authority and a water service provider.

Almost 40% of the District's land cover is agricultural, with timber and sugar cane being the dominant crops. The District is an important industrial, timber, dairy and agricultural hub, and has a modern road and rail infrastructure with easy access to airports and the port of Durban.

The District includes most of the greater uMngeni catchment, which is considered to be one of the most important water catchments in South Africa. It provides potable water to almost half the population of the KwaZulu Natal province (more than 5 million people) within the greater Durban-Pietermaritzburg area, the second largest economic region in the country.

The District has a population of one million people, the majority of whom speak Zulu as their home language. With the highest prevalence of HIV/ AIDS in the country (42.3%) and a pattern of migratory work outside the District, there is a very high proportion of female-headed households in the UMDM: 45, 8% (125,061) of households (both urban and rural) in the District are headed by women.

The patterns of settlement and economic activity in the District reflect the legacy of segregation and inequality inherited from the past. This inequality persists in social, economic and spatial terms. According to the World Bank, "South Africa remains a dual economy with one of the highest inequality rates in the world, perpetuating inequality and exclusion. Spatially, an advanced, modern urban economy coexists in sharp contrast with the socioeconomic poverty of disadvantaged townships, informal settlements and rural areas"(World Bank, 2013).

Within the UMDM district there are centres of wealth and privilege, and extensive areas of poverty and vulnerability. Most settlements occur along the N3, the national highway

that links the two largest economic regions in South Africa viz. the Johannesburg and Durban city regions. More than 50% of the District's population live along this corridor, in the city of Pietermaritzburg and the towns of Howick, Camperdown and Mooi River.

As one moves away from the N3 corridor, informal settlements predominate, tending to sprawl over undulating, often steep terrain and in floodplains. Rivers flow through these settlements, most of which have highly inadequate stormwater drainage systems. These areas are especially vulnerable to extreme weather events such as flooding and strong winds, and are also exposed to wildfire risks. With actual and projected increases in the prevalence of extreme events and flooding as well as increased wind speeds, the informal and traditional housing sector is of special concern.

There are more than 21,500 informal dwellings and more than 58,000 traditional dwellings in the District (Statistics South Africa, 2012). Residents have limited access to social, economic and municipal basic services. For example, 16.2% of the population within the District have no access to municipal drinking water and a further 18.8% rely on communal water pumps. Residents have limited access to employment and to land for farming. Census 2011 estimated that the uMgungundlovu District had an average unemployment rate of 30.4%. Unemployment is highest in the more remote local municipalities. For instance, the very rural Impendle Municipality has an unemployment rate of 45.1%.

In the Vulnerability Assessment undertaken by the UMDM prior to formulating a climate change response strategy for the District, the key priorities identified were environmental health, maintaining agricultural production, and minimizing the disruption of services and damage to infrastructure resulting from climate variability and change.



Figure 3: Informal settlement located on floodplain and adjacent steep slopes

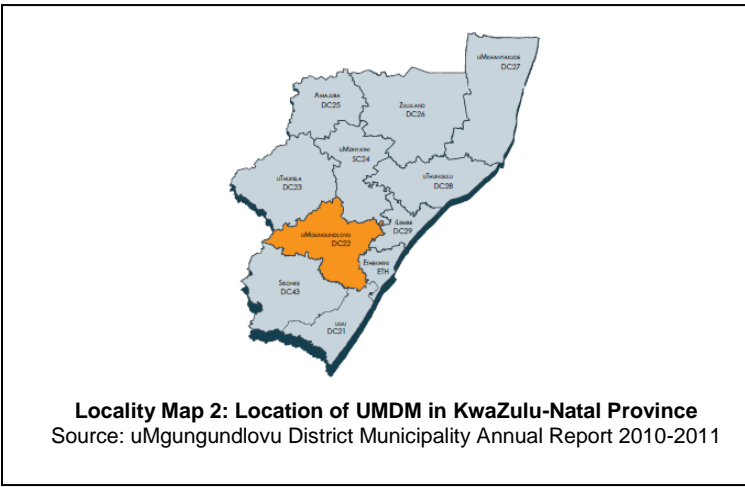
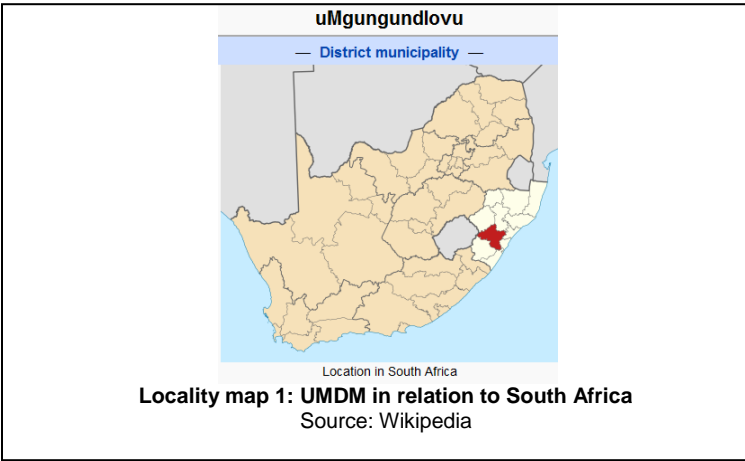


Figure 4: Degraded grasslands

Key areas of the District are thus characterised by extremely high levels of unemployment and poverty, a significant proportion of female-headed households, large informal settlements prone to flooding, fire and other risks, degraded ecosystems, marginal small-scale farming and often inappropriate farming practices, and an overall lack of resources and capacity by vulnerable groups to undertake successful strategies to adapt to climate variability and change.

The proposal will focus on these vulnerable local communities in informal and traditional housing, as well as on small scale and emerging farmers. Vulnerable groups in these communities, including women, youth, the aged and unemployed will receive special attention.

■ PROJECT / PROGRAMME OBJECTIVES:

The overall objective of the project is to reduce climate vulnerability and increase the resilience and adaptive capacity in rural and peri-urban settlements and small-scale farmers in productive landscapes in the UMDM that are threatened by climate variability and change, through an integrated adaptation approach.

The project will adopt a suite of complementary project interventions, focussing on a) early warning and response systems, b) a combination of ecological and engineering infrastructure solutions specifically focused on vulnerable groups in rural and peri-urban settlements, c) integrating climate variability and change responses into agricultural practices and infrastructure, and d) disseminating adaptation lessons learnt and policy recommendations, to facilitate upscaling and replication.

The proposal presents four components:

Component 1: Early warning systems (USD 805 750)

Early warning and response systems improve preparedness and adaptive capacity of local communities and small-scale farmers drawing on and integrating scientific and local knowledge

Component 2: Climate-proof settlements (USD 2 893 375)

A combination of ecological and engineering solutions reduces vulnerability of rural and peri-urban communities to existing and anticipated impacts of climate variability and change

Component 3: Climate resilient agriculture (USD 2 490 500)

Small-scale farmers have improved resilience and reduced vulnerability to existing and anticipated impacts of climate variability and change

Component 4: Lessons learnt (USD 439 500)

Dissemination of adaptation lessons learnt and policy recommendations facilitates up-scaling and replication.

■ PROJECT / PROGRAMME COMPONENTS AND FINANCING:

PROJECT/ PROGRAMME COMPONENTS	EXPECTED OUTCOMES	EXPECTED CONCRETE OUTPUTS	AMOUNT (US\$)
<p>1. Early warning and response systems improve preparedness and adaptive capacity of local communities and small-scale farmers, drawing on and integrating scientific and local knowledge</p> <p>(Short title: Early warning systems)</p>	<p><i>Local and national capacities and tools for guiding responsive action triggered by hydro-climatological information reduce vulnerabilities and strengthen adaptive responses</i></p> <ul style="list-style-type: none"> • Hydro-climatological information systems integrate local and scientific knowledge to provide advance warning on appropriate time frames • Communication protocols developed for providing advance warning information to communities about potential disaster events • Officials integrate preventative and risk reduction interventions in approaches to disaster management • Local communities and households using early warning system information to protect assets against fire, storms and flooding • Small scale farmers using information from seasonal weather forecasting in seasonal production planning • Small scale farmers using early warning system information to protect assets against fire, storms and flooding 	<p>1.1 Hydro-climatological information supplied timeously in an appropriate form for direct use by communities and small-scale farmers, as well as by relevant planning, agricultural and disaster response officials</p> <p><i>Indicative activities are as follows:</i></p> <p>1.1.1 <i>Adapt/format relevant early warning system information into a form that is useful for local communities and small-scale farmers as needed¹</i></p> <p>1.1.2 <i>Develop appropriate response protocols for officials responsible for issuing disaster warnings, to reduce personal risk and improve reliability of warnings issued</i></p> <p>1.1.3 <i>Formulate and apply new strategies, structures and operating rules for municipal disaster management services that focus on disaster risk reduction, as well as on improved response to predicted climate variability and change impacts and early warnings issued</i></p> <p>1.1.4 <i>Train and empower officials to advise communities about seasonal forecasting, and timeously inform communities in the target areas about potential disaster events</i></p> <p>1.2 An early warning system that empowers communities and small scale farmers to respond timeously to seasonal forecasts and potential disaster events, reducing vulnerability to extreme weather events</p> <p><i>Indicative activities are as follows:</i></p> <p>1.2.1 <i>Develop an indicative set of responses, with scientists, community members and small-scale farmers, to each potential disaster event</i></p> <p>1.2.2 <i>Develop training programme and training materials for recipients of early warning system information, in appropriate responses. Train extension officers, key local community members and small-scale farmers. Supply communication equipment to recipients as needed.</i></p> <p>1.2.3 <i>Support communities to develop, implement and test appropriate response measures that integrate scientific and local knowledge.</i></p> <p>1.3 Seasonal weather forecasting products that improve resilience of small scale</p>	<p>805 750</p>

¹ As in the Fire Danger Index, which categorises a day of extreme fire danger as a 'red day', when for example the burning of firebreaks and other fuel should not be undertaken

PROJECT/ PROGRAMME COMPONENTS	EXPECTED OUTCOMES	EXPECTED CONCRETE OUTPUTS	AMOUNT (US\$)
		<p>farmers to climate variability</p> <p><i>Indicative activities are as follows:</i> 1.3.1 Develop training programme, training materials and best practice guidelines for the use of seasonal forecasts in farm planning, incorporating scientific and local knowledge. Train extension officers and small-scale farmers 1.3.2 Monitor uptake and implementation and adapt programme as needed</p>	
<p>2. A combination of ecological and engineering solutions helps local communities to reduce vulnerability to the existing and anticipated impacts of climate variability and change</p> <p>(Short title: Climate-proof settlements)</p>	<p><i>Built and ecological infrastructure enhances resilience and reduces vulnerability to risks associated with climate variability and change</i></p> <ul style="list-style-type: none"> • Vulnerable rural and peri-urban households have increased resilience to climate-induced stresses, as a result of investments in ecological and engineering infrastructure • Structural measures for infrastructure and community buildings (to respond to climate-related risks or threats) designed and implemented, benefiting vulnerable households • Ha of quinary catchment (including wetlands) with improved functionality 	<p>2.1 Critical settlement infrastructure standards for implementation, community facilities and homes strengthened and stabilised to buffer vulnerable communities against anticipated climate-produced stresses (including cyclones, flooding, hailstorms and fire).</p> <p><i>Indicative activities are as follows:</i> 2.1.1 Integrate adaptation responses into community-level infrastructure upgrade plans at target sites, incorporating green infrastructure opportunities 2.1.2 Develop and implement sustainable stormwater drainage systems and related infrastructure 2.1.3 Climate-proof identified community facilities and assist vulnerable households to develop ways of climate proofing their houses 2.1.4 Develop policy recommendations for the inclusion of climate proofing and adaptation mechanisms into building regulations, infrastructure standards and planning at the municipal level, including into municipal Integrated Development Plans (IDP) and Spatial Development Frameworks (SDF)</p> <p>2.2 Restored and protected critical ecosystems that maintain ecosystem resilience, and provide buffering from flooding and fire etc) and freshwater provisioning to local communities downstream.</p> <p><i>Indicative activities are as follows:</i> 2.2.1 Integrate adaptation responses into catchment management plans for vulnerable communities and small-scale farmers in targeted quinary catchments 2.2.2 Restore and rehabilitate critical ecological infrastructure to improve its capacity to mitigate effects of climate induced disasters 2.2.3 Develop policy recommendations for including adaptation considerations into South Africa's Expanded Public Works Programmes and national sectoral adaptation response strategies</p>	2 893 375
3. Small-scale farmers have	<i>Productive landscape resilience increased through the</i>	3.1 The Provincial Department of Agriculture has increased adaptive	2 490 500

PROJECT/ PROGRAMME COMPONENTS	EXPECTED OUTCOMES	EXPECTED CONCRETE OUTPUTS	AMOUNT (US\$)
<p>improved resilience and reduced vulnerability to existing and anticipated impacts of climate variability and change</p> <p>(Short title: Climate-resilient agriculture)</p>	<p><i>installation of farm level infrastructure and the integration of climate change responses into agricultural practices</i></p> <ul style="list-style-type: none"> • Training materials developed and training courses held • Extension officers trained to offer extension support that mainstreams climate change adaptation into farming practices • Farm plans that include best practice adaptation measures produced collaboratively by scientists, extension officers and farmers • Best practice farm plans and climate change resilient agricultural practices implemented • Small-scale farmers have improved water security from reliable and appropriate sources 	<p>capacity and mainstreams adaptation practices into its extension services</p> <p><i>Indicative activities are as follows:</i></p> <p>3.1.1 Develop training materials 3.1.2 Train agricultural extension officers (including in use of seasonal forecasting)</p> <p>3.2 Investments in climate-resilient agricultural practices and physical infrastructure at the farm level mitigate impacts of climate variability and change for small-scale farmers</p> <p><i>Indicative activities are as follows:</i></p> <p>3.2.1 Develop best practice guidelines for targeted agricultural practices in conjunction with farmers 3.2.2 Scientists, extension officers and farmers collaboratively develop and implement farm level plans for climate change adaptation (including fire management practices, soil conservation, conservation agriculture, organic farming, irrigation development and best practice farming guidelines) 3.2.3 Install small-scale infrastructure to reduce impacts of climate variability (e.g. water tanks and pumps, shelters) 3.2.4 Invest in ecosystem restoration and rehabilitation to enhance agricultural resilience 3.2.5 Capture and disseminate lessons, develop policy recommendations for mainstreaming lessons into relevant farmers' associations, provincial department of agriculture and municipal practice</p>	
<p>4. Dissemination of adaptation lessons learnt and policy recommendations facilitates up-scaling and replication</p> <p>(Short title: Lessons Learnt)</p>	<p><i>Adaptation practices integrated in relevant climate variability and change policies at the municipal level, in targeted sectors and beyond</i></p> <ul style="list-style-type: none"> • Project results are shared at relevant local, national and international fora • Policy recommendations to address climate variability and change risks formulated and disseminated 	<p>4.1 Lessons learned and best practices codified and used to raise awareness of effective climate risk management options, for further up-scaling</p> <p><i>Indicative activities are as follows:</i></p> <p>4.1.1 Communities supported to share lessons and develop case studies 4.1.2 Beneficiaries and stakeholders share emerging lessons with institutional stakeholders and knowledge networks locally, nationally and internationally 4.1.3 Policy recommendations and best practices (on use of early warning systems, climate-proofing settlements and supporting climate-resilient small scale agriculture) distilled for dissemination and scaling up at the level of district municipality, in targeted sectors (including environment, water, agriculture and disaster risk management) and beyond (including the National Planning Commission and national sectoral departments such as water, agriculture). 4.1.4 Plan developed for scaling up and officially adopting best practices</p>	439 500

PROJECT/ PROGRAMME COMPONENTS	EXPECTED OUTCOMES	EXPECTED CONCRETE OUTPUTS	AMOUNT (US\$)
6. Project/Programme Execution cost			695 875
7. Total Project/Programme Cost			7 325 000
8. Project/programme Cycle Management Fee charged by the Implementing Entity			622 625
Amount of Financing Requested			7 947 625

■ PROJECTED CALENDAR:

MILESTONES	EXPECTED DATES
Start of Project/Programme Implementation	July 2014
Mid-term Review (if planned)	January 2017
Project/Programme Closing	June 2019
Terminal Evaluation	March 2019

■ PART II: PROJECT / PROGRAMME JUSTIFICATION

- A. Describe the project / programme components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience. For the case of a programme, show how the combination of individual projects will contribute to the overall increase in resilience.

The project will focus on the development and application of a range of approaches and tools for resolving specific vulnerability issues in two or three pilot areas, targeting vulnerable groups including women, youth and the aged. The approach will be to apply, learn from and adapt these methods and tools, and then scale up by formulating policy recommendations and applying these to the broader UMDM area and beyond.

Note that *Component 1: Early warning systems* will apply to all project sites, and will serve as an enabler of both *Component 2: Climate-proofing settlements* and *Component 3: Climate-resilient small-scale agriculture*.

Component 1: Early warning systems (USD 805 750)

“Early warning and response systems improve preparedness and adaptive capacity of local communities and small-scale farmers, drawing on and integrating scientific and local knowledge”

This component seeks to refine and extend existing early warning systems for weather, flooding and fire danger, and long term drought conditions, so that they are

used to timeously support local communities to prepare for climate-induced stresses, and to expand the role of the existing municipal disaster management to include a more proactive approach that includes risk reduction and disaster prevention.

A number of early warning systems currently exist in South Africa, including the Advanced Fire Information System (AFIS), a satellite-based fire information tool that provides near real time fire information to users², and an early warning system for the uMngeni River operated by Umgeni Water. Existing systems will be assessed to determine their adequacy to provide hydro-climatological information at a scale and frequency that is needed to reduce risk in the target communities. Based on the assessment, systems will be augmented and aligned so that information outputs are accessible, relevant and in a user-friendly form for early warning and response systems at the community level, as well as for relevant planning, agricultural and disaster response officials.

The component will also facilitate the development of disaster risk protocols to support relevant authorities with processes and procedures for interpreting hydro-climatological information, and making this available to communities. These protocols will improve timeous and appropriate responses to forecasting, and will empower officials to take more effective action.

Vulnerable communities and small-scale farmers will be engaged through carefully designed participatory processes. The project will support such groups to develop, implement and test appropriate response measures that integrate scientific and local knowledge, in response to warnings of impending disaster events, such as floods, wildland fires and storms, as well as to seasonal forecasts that affect, for example, farming practices. It will facilitate processes where members of vulnerable communities and groups jointly develop appropriate disaster responses with officials in the municipal early warning and disaster management functions. Where appropriate, cell-phone technology and social media will be used to support this process.

Currently, the disaster management function in UMDM is focussed on responding reactively to disaster events. The project will work to expand the focus of this function to include a disaster risk reduction function, and to improve its capacity to respond proactively to predicted climate variability and change impacts and early warnings that are issued.

Lessons learnt about implementing early warning systems within vulnerable communities will be used to inform future action by the UMDM, and to formulate policy recommendations for mainstreaming into practice at municipal, provincial and national levels.

² AFIS provides users with fire prediction, detection, monitoring, alerting, planning and reporting capabilities through the use of Earth observation satellites, weather forecast models and Information and Communication Technologies (<http://www.afis.co.za/>)

Component 2: Climate-proof settlements (USD 2 893 375)

“A combination of ecological and engineering solutions helps local communities to reduce vulnerability to the existing and anticipated impacts of climate variability and change”

This component will support existing development work being undertaken by local municipalities within the UMDM and by Umgeni Water regarding adapting basic infrastructure to improve resilience to increased frequency and intensity of flash flooding. It will also support job-creation in low-income communities through labour-intensive construction methods.

The project will focus on “climate-proofing” settlements in three ways:

- Firstly, the project will install or upgrade storm water drainage and related infrastructure in settlements, in order to create sustainable urban drainage systems and reduce flood-induced damage. This could include measures such as artificial wetlands, detention and retention ponds and permeable paving;³
- Secondly, the project will invest in climate-proofing critical community facilities, such as schools and clinics, against storm events including lightning, hailstorms, high winds and torrential rain; and work will also be undertaken with vulnerable households to develop ways of climate-proofing their houses.
- Thirdly, it will integrate adaptation responses into catchment management plans (at appropriate scales) and, where relevant, restore and protect riparian zones, wetlands and agricultural land upstream of settlements, to reduce the risks and impacts of floods and wildfire events.

In all instances, the project will work in a participatory manner, involving vulnerable groups including women, youth and the aged effectively in planning, implementation, and learning from the process.

Arising from lessons learned, policy recommendations will be formulated for the inclusion of climate proofing and adaptation mechanisms and standards into building regulations and planning at the municipal level, municipal Integrated Development Plans (IDP) and Spatial Development Frameworks (SDF), as well as into the national Expanded Public Works Programme⁴.

Component 3: Climate-resilient agriculture (USD 2 490 500)

“Small-scale farmers have improved resilience and reduced vulnerability to existing and anticipated impacts of climate variability and change”

Within the District, a range of different small-scale agricultural enterprises exist, many of which are beneficiaries of national land reform and redistribution

³ “The SUDS [sustainable urban drainage system] aims to minimise or eliminate discharges from a site, thus reducing the impact, the idea being that if all development sites incorporated SUDS then urban sewer flooding would be less of a problem. Unlike traditional urban stormwater drainage systems, SUDS can also help to protect and enhance ground water quality”. Source: http://en.wikipedia.org/wiki/Sustainable_urban_drainage_system accessed 17 April 2013.

⁴ For more information on the national Expanded Public Works Programmes see www.epwp.gov.za

programmes. These include small-scale commercial forestry, dairy farming and sugar cane, as well as traditional livestock grazing. A number of current agricultural practices have negative impacts on ecosystem services, and many small-scale farmers operate marginal enterprises, highly vulnerable to climate variability and change.

Currently some work is being undertaken by UMDM project partners to improve resilience and reduce the vulnerability of small farmers to climate variability and change. This includes identifying appropriate crops and cultivars, exploring integrated wildfire management approaches, and permaculture. However, there is as yet no co-ordinated attempt to support farmers to practice climate-resilient agriculture.

Once the specific sites where project activities will take place have been identified, a range of options for improving the resilience of these farming activities will be explored. Through training, the adaptive capacity of the provincial Department of Agriculture will be increased, and the Department will mainstream adaptation practices into its extension services. In conjunction with farmers, best practice guidelines for targeted agricultural practices will be developed. As a significant proportion of small-scale farmers are women, the project will pay particular attention to the concerns and needs expressed by this particularly vulnerable group in both project planning and implementation.

Scientists, extension officers and farmers will collaboratively develop and implement farm level plans for climate change adaptation and resilience. These will include soil conservation, conservation agriculture, organic farming and irrigation. Wildland fire risk assessments and fire management planning will contribute to more effective grazing management, and to improved productivity and landscape resilience.

Investments in small-scale physical infrastructure at the farm level will mitigate impacts of climate variability and change, securing water from reliable and appropriate sources (including rainfall harvesting), and providing storm shelters for livestock and harvests, where appropriate. At the same time, investments in ecosystem restoration and rehabilitation will enhance agricultural resilience to climate variability and change.

Lessons learnt will be used to develop policy recommendations for mainstreaming into the policies and practices of relevant farmers' associations, provincial department of agriculture and municipalities.

Component 4: Lessons learnt (USD 439 500)

“Dissemination of adaptation lessons learnt and policy recommendations facilitates up-scaling and replication”

To raise awareness of effective climate risk management options, the project will document the lessons learned throughout the life of the project. Communities will be

supported to share emerging lessons and develop case studies with other stakeholders. Policy recommendations and best practices (on use of early warning systems, climate-proofing settlements and supporting climate-resilient small scale agriculture) will be distilled for dissemination and scaling up at the level of District municipality, in targeted sectors (including environment, water, agriculture and disaster risk management) and beyond (including the National Planning Commission). This will assist in replication, further up-scaling, research, knowledge management and social learning processes.

The UMDM will develop a plan for scaling up and officially adopting best practices. Learning from adaptation planning and practice will be integrated into municipal development and spatial planning processes as well as into standards for building public facilities and homes, storm water drainage and flood-line delineation processes. In addition, the project will promote the integration of adaptation practices into relevant climate change policies in other targeted sectors, including environment, water, agriculture and disaster risk management, in local, provincial and national planning processes.

- B.** Describe how the project / programme provides economic, social and environmental benefits, with particular reference to the most vulnerable communities, and groups within communities, including gender considerations.

The current and projected impacts of climate variability and change in the UMDM region include severe storms, floods and wildland fires. Potential for drought events is not excluded. The projections are of particular concern for those areas and populations in the District already vulnerable to these hazards.

Key areas of the District are characterised by extremely high levels of unemployment and poverty, a significant proportion of female-headed households, large informal settlements prone to flooding, fire and other risks, degraded ecosystems, marginal small-scale farming and often inappropriate farming practices, and an overall lack of resources, knowledge and capacity by vulnerable groups to undertake successful strategies to adapt to climate variability and change.

During the Project Formulation Grant phase, project sites will be selected on the basis of their ability to deliver economic, social and environmental benefits to the most vulnerable communities, and groups, including women, the aged and youth⁵.

The project will target groups identified as being vulnerable to climate variability and change, especially those from disadvantaged backgrounds and poor households, and including women, youth, the aged and unemployed. The proposal will focus on these vulnerable local groups and communities in informal and traditional housing, as well as on small scale and emerging farmers. The project will provide the following benefits to vulnerable groups:

⁵ Lehoula, P (2012)

- Early warning and response systems will be customised and used to provide timeous information to local communities and small-scale farmers, drawing on and integrating scientific and local knowledge, to improve their preparedness and adaptive capacity;
- A combination of ecological and engineering solutions, including ecosystem restoration, installation of sustainable stormwater drainage systems and strengthening of community buildings and homes will help to prevent flooding, manage wildfires and ensure water security, thereby reducing the vulnerability of rural and peri-urban communities to existing and anticipated impacts of climate variability and change
- Small-scale farmers (both men and women) will be assisted with improving their resilience and reducing their vulnerability to existing and anticipated impacts of climate variability and change. Project activities will focus on improving the productivity of agricultural land through restoring and rehabilitating degraded ecosystems and supporting the development and implementation of best practice farm planning for adaptation, through processes which emphasise collaboration between farmers and technical support staff. The project will install small-scale infrastructure to improve water security and protection of livestock and harvests against storms.

The project will be undertaken through meaningful participatory processes involving vulnerable communities and groups. A key element will be the integration of local and indigenous knowledge with scientific and technical knowledge in formulating best practice approaches and framing adaptation lessons learnt. These, together with associated policy recommendations, will be disseminated to facilitate up scaling and replication in other vulnerable communities in the District and beyond.

C. Describe or provide an analysis of the cost-effectiveness of the proposed project / programme.

This project will focus on pilot sites in the Greater uMngeni catchment to demonstrate that holistic and integrated responses to climate variability and change can impact positively on rural and peri-urban communities, and especially women. To date, considerations of climate variability and change and its associated impacts on settlements and production processes in the greater uMngeni catchment have been fragmented, and responses have been largely reactive. The project will seek to integrate efforts to date, and to build these into a coherent set of gender sensitive responses that equip rural and peri-urban communities with tools to anticipate and respond timeously to climate induced stresses. The project will capture lessons and

policy implications, with a view to scaling up these efforts and approaches elsewhere in the district, the province and the country.

Because it wishes to show that climate response interventions can deliver tangible and measurable benefits, the project will focus its efforts on selected target rural and peri-urban communities, and will aim to benefit these communities by working in partnership with community members themselves, government officials and scientists. The project will integrate local and scientific knowledge at all levels, and to test the efficacy and sustainability of identified response measures through the implementation of a suite of climate response strategies. It will also aim to shift the strategies of government officials in disaster management, water, planning, building and agriculture so that resources are targeted at risk reduction in integrated catchment management, settlement and building planning and rural livelihoods.

Through its efforts, it will seek to integrate climate change response measures into on-going environmental and socio-economic development processes so that co-benefits are optimised, maladaptation is avoided and efforts are sustained. In addition to the direct benefits to project stakeholders and beneficiaries, the project will develop best practice approaches that will be able to be scaled up across the district, and replicated elsewhere in South Africa. The integrative nature of the proposed approach will also support the development of cooperative governance networks that will be able to support other processes requiring horizontal and vertical integration. Importantly, the project will be implemented through existing institutions who have committed to sustaining the programme of work beyond the Adaptation Fund investment period.

Under a business-as-usual scenario, the following scenarios would be likely:

- Responses to climate change would continue to be short term and reactive particularly in the context of poor rural and peri-urban communities who have high levels of vulnerability to begin with
- Small scale farmers would continue to be affected by unpredictable and disastrous climate events, with consequent impacts for rural livelihoods and health
- Disaster management at the level of the District would continue to focus on disaster response, and would miss opportunities to reduce risk
- Communities would continue to be unprepared for disaster events, with consequent property damage and impacts on human health.
- Community level experiences and best practices will not be mainstreamed into the district's integrated development plan (IDP) and spatial development frameworks (SDF).

- An opportunity to identify climate change response measures into settlement and natural resource planning, building, environmental management and agricultural policies at regional and national levels would be missed
- An opportunity will be missed to make the case for investments in climate change adaptation at the community level.

The project proposes an integrated set of measures, that are embedded in local processes and institutions, and that seek to deliver a suite of co-benefits to vulnerable communities across multiple sectors. It is believed to be fully cost effective.

- D. Describe how the project / programme is consistent with national or sub-national sustainable development strategies, including, where appropriate, national or sub-national development plans, poverty reduction strategies, sector strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist.

The project is strongly aligned to national and sub-national policies, plans and priorities for adapting to climate change.

At national level, the SNC identifies future challenges anticipated due to climate change effects. It specifically indicates that water will be the primary medium through which people, ecosystems and economies first experience the impacts of climate change. Reducing the vulnerability of marginalised communities to the impacts of flooding is a priority, along with ensuring that water infrastructure is adapted to cope with increased risks from flooding.

The vulnerability of human livelihoods is also emphasised in the SNC. The need to climate-proof vulnerable rural and peri-urban settlements through better spatial planning, improved drainage, the use of higher quality building materials and ecosystem based approaches that restore ecological infrastructure are recommended as key adaptation activities. The SNC reconfirms concerns about increasing wildland fire risks, especially for agriculture, human settlements, biodiversity and plantation forestry. Wildland fire management is identified as a key response strategy from an adaptation perspective. The SNC also embraces the disaster risk reduction approach that is founded on early warning and severe weather warning systems.

The National Climate Change Response Policy *White Paper on Climate Change* highlights the multi-dimensional nature of climate change which requires the mainstreaming of climate change considerations and adaptation into all planning activities in order to achieve integration and create an environment where informed decision making, co-operative governance and partnerships flourish between various state and non-state parties. This project demonstrates the integration of

science and local knowledge in formulating and testing an integrated, synergistic and forward-looking adaptation strategy and is this in line with the White Paper.

The National Development Plan (NDP) *Vision for 2030* recognizes that natural resource management, economic growth and poverty alleviation are closely intertwined. The NDP proposes adequate support for the most vulnerable communities, significant investments in conserving and restoring ecological infrastructure and adaptation technologies in the water and human settlement sectors. The NDP also supports the development of early warning systems, mainstreaming adaptation planning into all planning activities and the creation of sustainable work opportunities through undertaking adaptation activities.

The project is aligned with the recently founded Climate Change and Sustainable Development Council in the KwaZulu-Natal province. In September 2012, the Provincial Government became the first provincial government to establish a Climate Change and Sustainable Development Council, with multi-stakeholder membership. The Council has set up three Working Groups, namely Policy and Regulatory Alignment Working Group, Adaptation and Mitigation Working Group and Renewable Energy Working Group.

The Province is in the early stages of developing a provincial Climate Change Response and Sustainable Development Plan that is guided by, among others, the national strategy and the KwaZulu-Natal Growth and Development Strategy, which has among its goals environmental sustainability. The learning of this project could make a crucial contribution to the provincial Climate Change Response and Sustainable Development Plan.

The UMDM has established a multi-stakeholder Environmental Management Forum on the level of the District Municipality. This forum has convened regularly for the past two years and has provided a platform for collaborative planning, implementation and learning. The UMDM has recently developed a Climate Change Response Strategy and a Draft Disaster Management Plan, and is currently completing a Strategic Environmental Assessment and an Environmental Management Plan.

The implementation of an Adaptation Fund project within the UMDM will act as a catalyst for increased investments in the green economy and environmental infrastructure by the municipality and other partners. Municipal leadership will see the link between political will and early investment in planning and policy processes and their ability to attract significant external investments. Other partners within the UMDM will also be inspired to forge partnerships to leverage additional investments to address some of other key environmental challenges facing the Greater uMgeni area.

- E. Describe how the project / programme meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc.

This project was carefully selected through a national consultation process that saw the NIE consult stakeholders to develop an investment strategy for the NIE, call for proposals and engage a high level steering committee to select proposals for further development. This process has ensured that the project has been designed with a clear focus on agreed results.

(The NIE Steering Committee is chaired by the CEO of SANBI, and comprises representatives of the National Department of Environmental Affairs (DEA), National Treasury, The National Planning Commission of the Presidency and the Civil-Society lead Adaptation Network).

Going forward, the further development of this project and its implementation will be governed by the NIE Steering Committee in consultation with local beneficiaries and stakeholders. This process will ensure that the project always reflects local circumstances and aspirations and draws upon national actors and capabilities.

All projects that are implemented through the South African NIE will be required to follow and comply with national technical standards and relevant policies and legislation.

The project will be implemented in line with the following national legislation and standards, which may have relevance for the implementation of the project:

- Extended Public Works Programme standards for restoration of wetlands and riparian zones
- National Building Regulations including the new Green Building Code
- Disaster Management Act and the National Disaster Management Framework
- Water Services Act: Norms & Standards for Quality Water Services
- Environmental Impact Assessment standards and regulation legislation, should this be relevant

Any safeguards that are developed specifically for the Adaptation Fund would also be met. (SANBI has experience implementing GEF projects that required compliance with World Bank safeguards, and these were always found to be consistent with and enabled by South African standards).

- F. Describe if there is duplication of project / programme with other funding sources, if any.

This project will not support activities that are already supported with other funding sources. Elements of the project will, however, build on the experiences and lessons

learned from past and on-going initiatives and inform on-going policy and learning processes, both in the UMDM area and beyond.

Examples include permaculture training currently being provided by Ezemvelo KZN Wildlife and African Conservation Trust in the Lower Mkuze catchment, domestic stormwater drainage solutions developed and implemented by the Built Environment Support Group elsewhere in the Province, and integrated wildland fire management and early warning systems being implemented in the country.

The Greater uMngeni catchment is the site of many environmental and agricultural interventions which could have a complementary effect on the proposed Adaptation Fund project rather than pose a duplication risk since none of them are aimed at mainstreaming adaptation activities. The national and provincial Department of Environmental Affairs through their Natural Resource Management Programme are supporting the clearing of alien invasive alien plants from riparian zones in most of the rivers in the catchment. The programme is implemented in partnership with NGO's like the Dusi uMngeni Conservation Trust (DUCT)⁶ and Traditional Authorities. Some pilot scale work has also begun on restoring grasslands and indigenous forests to reduce soil erosion in pockets of the Greater uMngeni catchment by NGOs like DUCT and the Wildlands Conservation Trust. The South African National Biodiversity Institute (SANBI) has an active programme in the catchment that is aimed at restoring wetlands that have been degraded. The Built Environment Support Group (BESG) is also undertaking projects in vulnerable communities which are aimed at developing sustainable communities through promoting the use of rainwater harvesting, food gardens and increasing the general resilience of livelihoods in vulnerable communities. The Wildlife and Environmental Society of South Africa (WESSA) is currently piloting potentially innovative environmental education programmes to increase knowledge amongst municipal officials and vulnerable communities on environmental protection and climate change issues. The LIMA Rural Foundation and the provincial Department of Agriculture have worked on numerous support programmes within the catchment for the small and subsistence farming sector aimed at improving irrigation and agricultural practices. The uMgungundlovu District Municipality is about implement a small scale Expanded Public Works Programmes that aims to test the viability of undertaking disaster risk reduction activities in vulnerable communities in order to reduce flooding risks. The SANBI, the Ethekwini Municipality, the uMgungundlovu District Municipality, uMngeni Water and the University of KwaZulu Natal are currently developing a conceptual framework to underpin an ecological infrastructure restoration programme that will seek to improve water security within the Greater uMngeni catchment in order to deal with serious water quality and supply challenges in the catchment.

Collectively these various interventions will enable the Adaptation Fund project to form linkages and partnerships rapidly, and learn lessons from projects that are already being implemented in the catchment that aim to protect and restore

⁶ See www.duct.org.za

degraded natural infrastructure and increase the resilience of vulnerable communities within the catchment to poverty and unemployment. This enabling environment however lacks large-scale and dedicated climate change adaptation interventions and the Adaptation Fund project is likely to act as a catalyst, getting many of the partners already involved in the catchment to look at ways in which they can support the Adaptation Fund project. This will include sharing the lessons they have learned and enabling the Adaptation Fund project to build upon the social capital they have created in vulnerable communities in the catchment. This will ensure smooth project implementation and increased prospects for maximizing the project impact of the Adaptation Fund project.

G. If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.

The learning processes within this project are described in detail under the description of Component 4 (“Dissemination of adaptation lessons learnt and policy recommendations facilitates up-scaling and replication”). In this component an active and participatory process of documentation and learning will be facilitated, including all relevant stakeholders, including project beneficiaries, gender representation and representation of other vulnerable groups. The learning process will explicitly facilitate an integration of different types of knowledge (local knowledge, scientific knowledge, engineering and technical knowledge etc.) to ensure robust adaptation pathways are followed.

The learning processes within the project will be documented through regular reflective meetings focusing on cross-cutting learning between the different components and aiming to facilitate synergistic learning. In 6-monthly workshops project learning will be compiled and documented. The project will compile integrated small case studies to share with the project team and national adaptation networks. Practical approaches for increasing resilience to climate change on farm and household level will be developed and shared in creative ways with wider communities, using participatory methods to facilitate the broad dissemination and uptake of the learning results.

A document detailing the process of planning and implementing an integrated adaptation project on municipal level will be compiled and shared with district municipalities, the National Climate Change Committee (NCCC) and ICLEI to reach maximum exposure. Effective adaptation strategies can then be taken up by the local, provincial and national policy level to support up-scaling and robust adaptation planning.

- H. Describe the consultative process, including the list of stakeholders consulted, undertaken during project preparation, with particular reference to vulnerable groups, including gender considerations.

The project preparation process to date has been participatory in that a range of key stakeholders who work on climate change issues or are highly vulnerable to climate variability and change impacts. At the outset, a wide range of stakeholders were invited to participate in preparing and defining the project intervention and outcomes.

The UMDM's project consultation and preparation process was initiated through consultations on the development of the uMgungundlovu Adaptation Plan, which formed part of the development of its climate change response strategy. Meetings were held with stakeholders from government, business, civil society in the disaster management, agriculture, infrastructure, municipal services, human settlements, environment and organised business. Representatives of community-based organisations from vulnerable communities, women, the aged and youth were also included.

Project preparation itself commenced with a multi-stakeholder forum to develop an integrated project concept for the NIE Adaptation Fund submission. The UMDM invited key stakeholders from government, business and civil society from all the sectors impacted upon by climate variability and change. This forum convened on two occasions to prepare the submission, and was supported by specialist consultants currently developing the District Strategic Environmental Assessment Process and the Climate Change Response Strategy of the District.

Once the project concept was shortlisted by the NIE, the forum met on two further occasions in order to discuss refinements to the project concept and possible sites where the project could be implemented. The UMDM undertook a preliminary assessment of vulnerable areas for project interventions, through desktop mapping and ground-truthing processes, with NGOs and CBOs working in the most vulnerable communities within the UMDM.

The UMDM then convened a meeting of key stakeholders and NIE representatives to review the proposal and consult stakeholders on the preliminary site selection process.

While a broad range of national and municipal stakeholders have been involved in project conceptualisation to date, it is recognised that additional consultation is needed with local communities.



Figure5. Stakeholder meeting: April 2013

During the Project Formulation Grant phase, specific intervention sites will be selected on the basis of their ability to deliver economic, social and environmental benefits to the most vulnerable communities, and groups, including women. This process will also take cognisance of social and political dynamics in those communities. Detailed project development will take place with stakeholders and beneficiaries at those sites. This process will explore specific climate change vulnerabilities and appropriate local level responses at these sites, which will inform the submission of the full project proposal.

The following stakeholders have been consulted to date:

Stakeholder:	Type of organisation:
uMgungundlovu District Municipality	District municipality
uMgungundlovu District Environmental Forum	Multi-stakeholder forum
Msunduzi Municipality	Local municipality
Impendle Municipality	Local municipality
Department of Environmental Affairs	National government department
Department of Water Affairs	National government department
Department of Agriculture, Forestry and Fisheries	National government department
KwaZulu Natal Department of Cooperative Governance and Traditional Affairs	Provincial government department
KwaZulu Natal Department of Agriculture and Environmental Affairs	Provincial government department
Ezemvelo KZN Wildlife	Provincial public entity
Umgeni Water	Provincial public entity
University of KwaZulu Natal	University
Cedara College of Agriculture	College
Built Environment Support Group	NGO

Stakeholder:	Type of organisation:
Duzi uMngeni Conservation Trust	NGO
Wildlife and Environment Society of South Africa	NGO
LIMA Rural Development Foundation	NGO
Preservation of Msunduzi Mkhambathini Biodiversity Trust (PMMBT)	NGO
Midlands Conservancies Forum	Stakeholder forum

In the detailed project design phase, additional stakeholders will be consulted, including:

- Beneficiaries and local communities in the project sites
- PROLINNOVA South Africa
- Institute of Natural Resources
- Farmer Support Group (UKZN)
- World Wide Fund for Nature (WWF)

I. Provide justification for funding requested, focusing on the full cost of adaptation reasoning.

South Africa’s climate response is guided by the National Development Plan, and supported by sectoral legislation and the Integrated Development Plans (IDPs) on municipal level. Implementation on the national and provincial level has been mainly focused on socio-economic development and job-creation addressing some pressing challenges the country is facing. The response to extreme climate events has been fragmented and is mainly reactive, meaning the response is focusing mainly on disaster relief and disaster risk reduction.

This project would allow a horizontal and vertical integration of activities, allowing for comprehensive synergistic response strategies – taking long term climate scenarios into account and anticipating future additional climatic stressors while supporting sound sustainable development across sectors.

This capacity development effort will also allow more integrated approaches in other areas and could become the basis of pro-active governance – anticipating instead of just responding to complex problems. Co-ordination structures set up as part of this project could also be a vehicle for further integrated responses in not only climate related fields and could thus have a far wider reach and persist beyond the timeframe of this project.

The integration of local and scientific knowledge and the capacity that the project will build in the course of the accompanying learning process will further strengthen the synergistic character of the response strategies developed.

- J. Describe how the sustainability of the project/programme outcomes has been taken into account when designing the project.

The project has been initiated and is strongly supported by the UMDM. All activities have been designed to include a range of stakeholders including vulnerable groups, to ensure ownership of results of this project. The individual capacity and institutional learning developed through the joint planning and implementation process will ensure that upgraded infrastructure will be maintained by the District Municipality and upgraded homes by their occupants respectively.

Social learning processes will result in increased capacity to promote synergies and to find integrated solutions towards complex adaptation challenges. This capacity will remain within the municipality and will be able to inform good governance and integrated strategies for adaptation planning.

The agricultural component will integrate scientific and local knowledge and will ensure that the agricultural practices are appropriate and will support resilient livelihoods way beyond the timeframe of this project.

The South African Weather Service (SAWS) is mandated to provide effective and appropriate early warning and seasonal forecasts. Developments in established communication channels in this project will thus be maintained by SAWS.

PART III: IMPLEMENTATION ARRANGEMENTS

- A. *Describe the arrangements for project / programme implementation.*

SANBI will be the **National Implementing Entity** for this project.

The designated **Executing Entity** of the project will be uMgungundlovu District Municipality (UMDM). The UMDM is one of the better-capacitated District Municipalities in the country⁷ and has robust partnerships with a wide range of local stakeholders including local municipalities, parastatals (such as Umgeni Water), NGOs, technical service providers and research institutes⁸. Together they have considerable experience, core capacities and local and indigenous knowledge for supporting the implementation of the project. Project partners are currently undertaking a range of climate variability and change response measures and environmental protection projects, providing opportunities to build on existing institutional relationships.

⁷ In 2012 the UMDM was declared the best performing District /Metropolitan municipality in the KwaZulu Natal province, and it has had five successive years of unqualified audits.

⁸ See stakeholder list above.

The District will establish a project management unit for the project, and will have dedicated staff to manage and oversee the project. These will include a project manager, who will be a national professional designated for the duration of the project. The project manager's prime responsibility will be to ensure that the project produces the results specified in the project document to the required standard of quality and within the specified constraints of time and cost. The project manager will be supported by a core technical and support staff located within the UMDM and other supporting organizations to execute the project activities, including day-to-day operations of the project, and the overall operational and financial management and reporting. At the target implementation sites, local coordinators will be recruited.

The Project Board will be responsible for making management decisions for the project and will play a critical role in project monitoring and evaluations by quality assuring these processes and products, and using evaluations for performance improvement, accountability and learning. The composition of the Project Board is still to be determined.

A Stakeholder Forum will be created as a mechanism for sharing project outcomes with the broader adaptation community in the Greater uMngeni Catchment, and as a mechanism for sharing lesson beyond the project focal sites. There are several other landscape-level interventions planned or underway in the area, and during inception the project will assess the viability of creating an umbrella forum that can support several of these projects. It is thought that this will promote alignment and coordination between these interventions.

Project assurance: SANBI will support project implementation by assisting in monitoring project budgets and expenditures, recruiting and contracting project personnel and consultant services, subcontracting and procuring equipment. SANBI will also monitor the project implementation and achievement of the project outcomes/outputs and ensure the efficient use of donor funds.

B. Describe the measures for financial and project / programme risk management.

During the development of the project document, the risks and associated management measures will be analysed and elaborated.

C. Describe the monitoring and evaluation arrangements and provide a budgeted M&E plan. Include breakdown of how Implementing Entity's fees will be utilized in the supervision of the monitoring and evaluation function.

Detailed M&E arrangements will be developed during the project formulation grant phase.

The monitoring and evaluation (M&E) scheme will be applied throughout the project lifetime. SANBI, together with its EE and interface agency partners will ensure the timeliness and quality of the project implementation.

Indicative activities are as follows:

Project start: A *Project Inception Workshop* (IW) will be held within the first 3 months of project start with those with assigned roles in the project management. This is crucial to building ownership for the project results and to plan the first year annual work plan.

Annual Progress Report: An *Annual Progress Report* (APR) shall be prepared by the Project Manager, shared with the Project Board and submitted to the Donor. The APR will be prepared with progresses against set goals, objectives and targets, lessons learned, risk management and detailed financial disbursements.

Mid-term of the project cycle: The project will undergo an independent *Mid-Term Evaluation* (MTE) at the mid-point of project implementation. The MTE will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. The findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term.

Periodic Monitoring through site visits: SANBI will conduct visits to project sites based on the agreed schedule in the project's Annual Work Plan to assess, at first hand, project progress. Other members of the PB may also join these visits.

Project Closure: An independent *Final Evaluation* will be undertaken 3 months prior to the final PB meeting. The final evaluation will focus on the delivery of the project's results as initially planned and as corrected after the mid-term evaluation, if any such correction takes place. The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals.

Include a results framework for the project proposal, including milestones, targets and indicators and sex-disaggregate targets and indicators, as appropriate. The project or programme results framework should align with the goal and impact of the Adaptation Fund and should include at least one of the core outcome indicators from the AF's results framework that are applicable.

A detailed results framework with SMART indicators, their baseline and targets will be prepared during the preparation of the full Project Document to be submitted to the Adaptation Fund for approval.

- D.** Include a detailed budget with budget notes, a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs.

A detailed budget with budget notes, a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs will be prepared during the preparation of the full Project Document to be submitted to the Adaptation Fund for approval.

- E.** Include a disbursement schedule with time-bound milestones.

A detailed disbursement schedule with time-bound milestones will be prepared during the preparation of the full Project Document to be submitted to the Adaptation Fund for approval.

ACRONYMS


AFIS	Advanced Fire Information System
APR	Annual Progress Report
CoGTA	Department of Cooperative Governance and Traditional Affairs
CSIR	Council for Scientific and Industrial Research
DAFF	Department of Agriculture, Forestry and Fisheries
DEA	Department of Environmental Affairs
DMA	Disaster Management Act
DWA	Department of Water Affairs
EbA	Ecosystem-based Adaptation
EE	Executing Agency
EPWP	Expanded Public Works Programme
FDI	Fire Danger Index
GCM	Global Climate Model
GEF	Global Environment Facility
ICLEI	International Council for Local Environmental Initiatives
IDP	Integrated Development Plan
IFM	Integrated Fire Management
INR	Institute of Natural Resources
IW	Project Inception Workshop
KZN	KwaZulu-Natal
MTE	Mid-Term Evaluation
M&E	Monitoring and Evaluation
NCCC	National Climate Change Committee
NCCRP	National Climate Change Response Policy
NDP	National Development Plan
NGO	Non-governmental organization
NIE	National Implementing Agency
PB	Project Board
PM	Project Manager
PMMBT	Preservation of Msunduzi Mkhambathini Biodiversity Trust
PROLINNOVA	Promoting Local Innovation in Ecologically Oriented Agriculture and Natural Resource Management
SANBI	South African National Biodiversity Institute
SDF	Spatial Development Framework
SMART	Specific, measurable, attainable, relevant and time-sensitive
SNCCC	Second National Communication on Climate Change
SUDS	Sustainable urban drainage system
UKZN	University of KwaZulu-Natal
UMDM	uMgungundlovu District Municipality
UNEP	United Nations Environment Programme
WWF	World Wide Fund for Nature

PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. RECORD OF ENDORSEMENT ON BEHALF OF THE GOVERNMENT⁹ *Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/programme:*

Nosipho Ngcaba, Director General, Department of Environmental Affairs	Date: April 23 2013
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B. IMPLEMENTING ENTITY CERTIFICATION *Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person’s name, telephone number and email address*

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans (The National Climate Change Response Policy White Paper, the National Development Plan, South Africa’s 2 nd National Communication to the UN Framework Convention on Climate Change) and subject to the approval by the Adaptation Fund Board, understands that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
 Guy Midgley Implementing Entity Coordinator	
Date: April 29 2013	+27 21 7998707, g.midgley@sanbi.org.za
Project Contact Person: Mandy Barnett	
Tel. And Email: +27 21 7998895, m.barnett@sanbi.org.za	

⁶. Each Party shall designate and communicate to the Secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

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environmental affairs

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Ref: Endorsement

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Ms Marcia Levaggi
The Adaptation Fund Board
C/o Adaptation Fund Board Secretariat
WASHINGTON DC
USA

Email: Secretariat@Adaptation-Fund.org
Fax: +202 522 3240/5

Dear Ms Levaggi

ENDORSEMENT FOR 'BUILDING RESILIENCE IN THE GREATER UMNGENI CATCHMENT, SOUTH AFRICA'

In my capacity as designated authority for the Adaptation Fund in South Africa, I confirm that the above project proposal is in accordance with the government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in South Africa and in this case the uMgungundlovu District.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by South African National Biodiversity Institute (SANBI) and executed by the uMgungundlovu District Municipality.

Yours sincerely

Ms Nosipho Ngcaba
DIRECTOR-GENERAL

DATE: 23/04/2013

Cc: Mandy Barnett, M.Barnett@sanbi.org.za