

ToR Closure Form

CRIDF Standard Activity Activity 1921 Eligibility Screening of Project Proposals from Swaziland DWA

Aspect	Detail
Project background	This Activity arose from the Project TA7 Initial Interface on the IncoMaputo and Umbeluzi River Basins (1920). The Swaziland DWA presented five projects to CRIDF for consideration.
Where does this fit with project plan?	The Activity fits into the first phase of CRIDF's Project plan, initial eligibility by conducting Screen 1 assessments on the five Projects.
Aim of the Activity?	<p>To assess the eligibility for support of five Project proposals to CRIDF from the Department of Water Affairs in Swaziland. The five projects are:</p> <ol style="list-style-type: none"> 1. Potable water supply to Dinabanye community; 2. An information management system for the Department of Water Affairs; 3. Mnjoli dam – Emergency Preparedness Plan; 4. Feasibility study for the Nondvo Dam; 5. Construction of river gauging stations.
Achieve objectives?	The Activity was completed successfully.
Amendments, etc.	There were no amendments.
Recommendations	All five Project proposals received passed CRIDF's Screen 1 Eligibility Assessment. They all have transboundary elements, are concerned with issues that will become more important because of climate change and would all provide benefits to poor communities in Swaziland and Mozambique.
Deliverables Specific Comments	<p>This Activity consists of 6 deliverables.</p> <ul style="list-style-type: none"> • D01- Screen 1 Assessment of the Potable water supply to Dinabanye community proposal. • D02- Screen 1 assessment of the Information Management System for the Department of Water Affairs proposal. • D03- Screen 1 assessment of the Mnjoli dam – Emergency Preparedness Plan proposal. • D04- Screen 1 assessment of the Feasibility study for the Nondvo Dam proposal • D05- Screen 1 assessment of the Construction of river gauging stations proposal. • D06- Final Activity report <p>Please refer to the included excel workbooks for Screen 1.</p>





Deliverable 6: Activity 1921 Eligibility Screening Swaziland – Final Activity Report

INCOMAPUTO (Inc. Umbeluzi), Project TA7

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Disclaimer

The British Government's Department for International Development (DFID) financed this work as part of the United Kingdom's aid programme. However, the views and recommendations contained in this report are those of the consultant, and DFID is not responsible for, or bound by the recommendations made.



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List of Acronyms

IRBO

IncoMaputo River Basin Organisation

Introduction

CRIDF

The Climate Resilient Infrastructure Development Facility (CRIDF) is DFID's new water infrastructure programme for southern Africa. Working to deliver sustainable small-scale infrastructure across 11 SADC countries, the demand-driven programme focuses on water services, water resource management, and water for livelihoods, fostering sustainable development of the region's water resources and addressing the water, food and energy nexus.

CRIDF prepares small-scale water infrastructure Projects and facilitates access to finance for the implementation of these Projects. Such interventions provide the entry point and platform for CRIDF to engage with, support and influence key SADC interventions, river basin organisations and national stakeholders. Activities are selected according to a set of CRIDF principles to ensure that investments align with strategic objectives that have been developed specifically for each SADC river basin.

As a result of CRIDF's work, poor people in countries of the SADC region will benefit from climate-resilient water infrastructure. The conditions for enhanced cooperation between stakeholders in shared river basins will be improved, and the evidence base – demonstrating the national benefits of cooperation on shared waters – will be strengthened. Through these outputs and outcomes the CRIDF programme will contribute to peaceful, climate-resilient and sustainable planning and management of shared waters in SADC, generating current and future benefits to the poor.

Activity Background

The Activity arose from the Project TA7 Initial Interface on the IncoMaputo and Umbeluzi River Basins (CRIDF Activity 1920). Activity 1920 was to engage the IncoMaputo River Basin Organisation (IRBO) with a view to assessing whether there were any opportunities for CRIDF to support the IRBO involving three river basins crossing South Africa, Swaziland and Mozambique. An arranged meeting with the IRBO Secretariat in Swaziland was used by the Swaziland Department of Water Affairs representatives as a one-on-one between CRIDF and Swaziland. This resulted in a refocusing of 1920 on engagement with Swaziland together with a recommendation for future engagement with South Africa and Mozambique and the TPTC technical task team. At the same time the Swaziland DWA submitted five Project proposals to CRIDF for consideration that are located within Swaziland, in the Incomaputo and Umbeluzi river basins. The Activity was to conduct CRIDF Stage 1 Screening on those five proposals to determine their eligibility for CRIDF support. Should any of them prove to be supportable by CRIDF, approval of the full IRBO would still be sought before proceeding to bankability.

Methodology

Objectives

To assess the eligibility for support of five Project proposals to CRIDF from the Department of Water Affairs (DWA) in Swaziland. The five Projects were:

1. Potable water supply to Dinabanye community;
2. An information management system for the Department of Water Affairs;
3. Mnjoli dam – Emergency Preparedness Plan;
4. Feasibility study for the Nondvo Dam;
5. Construction of river gauging stations.

Client

The client for this Activity was the Department of Water Affairs, Government of Swaziland.

Portfolio Lead

The Portfolio Lead for this Activity was Malcolm White.

Portfolio Manager (PM)

The Portfolio Manager for this Activity was Anna Entholzner.

Scope of Work

Obtain whatever further information may be available from the Swaziland DWA on the five Projects to be assessed;

Task 1: Conduct Screen 1 Assessment of the Potable water supply to Dinabanye community proposal;

Task 2: Conduct Screen 1 Assessment of the Information Management System for the Department of Water Affairs proposal;

Task 3: Conduct Screen 1 Assessment of the Mnjoli dam – Emergency Preparedness Plan proposal;

Task 4: Conduct Screen 1 Assessment of the Feasibility study for the Nondvo Dam proposal;

Task 5: Conduct Screen 1 Assessment of the Construction of river gauging stations proposal;

Task 6: Submit Final Activity Report, including final recommendations for follow-up activities, as appropriate.

Activity Lead

The Activity Lead on this Activity was Malcolm White

Activity Progress

The Activity was conducted over a six day period from 18 March 2014 to 26 March 2014. Each of the five proposals was assessed, and the Final Report (this document) compiled in that timeframe. Additional documentation to assist the assessments was obtained and consulted, including the Swaziland National Water Policy (Final Draft) 2009, the Integrated Water Resources Master Plan for the Kingdom of Swaziland (Draft Final Report) 2009, the Pongolapoort Local Development Plan (RSA), and reference was made to the SADC web site for additional information. Finally clarity on two issues was sought from the Project proponent; Swaziland Department of Water Affairs.

Findings of the Assessments

▲ Dinabanye Community Water Supply

The Project request was for a Feasibility Study, Design and Construction of a domestic water supply system for the Dinabanye community in the south of Swaziland, at an estimated Project cost of £222 000.

The positive issues related to this Project were the access by a remote community of a reliable safe water supply, and the cross-border/international agreements between Swaziland and South Africa being implemented. A negative issue was that the Impala Water Board described by Swaziland DWA does not exist. The institution in question is the Impala Water Users Association (WUA) based at Pongola in KwaZulu-Natal, South Africa. According to South African legislation a WUA does not have authority to allocate water outside of its designated area, let alone across international borders. It could be argued, however, that the communities on both sides of the border are actually one community which was one of those split by colonial powers drawing straight lines on maps. If one part of Pongola Community is willing to share resources with another part of Pongola Community, separated by an arbitrary fence line, maybe it should be supported as an example of good Trans-Boundary Cooperation. Also the matter of the water source is in question. The DWA initially described it as a river flowing from South Africa into Swaziland which then flows back across the border, with Swaziland abstracting water on their side of the border. Further enquiries resulted in a statement that the source of water is the Pongolapoort Dam, which crosses the Swaziland/RSA border.



▲ Establishment of a Water Resources Information Management System for Swaziland DWA

The Project request consisted of four components:

1. The appointment of a Technical Assistance Resource person to be attached to the Department of Water Affairs to assist the Department to establish a functional Information Management System (IMS).
2. Procurement of hardware and related software for the preferred IMS platform.
3. Installation of software and training of users on the use of the software.
4. Uploading of available data to the IMS system.

The total estimated Project cost was £255 000.

Positive factors identified by the assessment included Swaziland DWA becoming more competent in conducting its responsibilities with regards to flood prediction and management, general water resources planning and management, and becoming an active part of the SADC-wide system at a functional level. Negative factors for CRIDF were that there would be no infrastructure created under the Project, only as a possible outcome of improved planning in later years.

Mnjoli Dam Emergency Preparedness Plan

The features of the Project proposal were Technical Assistance for 6 issues:-

1. Determination of flood flow levels for floods of magnitude ranging from 1/20, 1/50 & 1/100 years over the Mnjoli Dam spillway to be used for the different alert levels.
2. Creation of inundation maps for 1/20, 1/50 & 1/100 year, and dam break, floods to identify structures and populations that can be affected.
3. Modelling of the flood events to verify the extent and magnitude of damage.
4. Development of an Emergency Preparedness Plan.
5. Creation of Communication Channels with stakeholders downstream of the dam including Mozambique.
6. Training of Water Affairs Staff on the implementation of the plan

This assistance has a total estimated Project cost of £55 500

The most positive issue was the potential for saving lives in the event of future floods, followed by the potential savings in reducing loss of property and other assets. International cooperation between basin states was the next highest consideration. No negative impacts were foreseen.



Nondvo Dam Feasibility Study

The proposed Project entails the undertaking of a comprehensive feasibility study to investigate the possibility of constructing a dam on the Lusushwana River in Swaziland. The investigation would cover a geotechnical investigation of the dam wall site, socio-economic and environmental impact assessments of the area and people to be affected by the Project, a proposed resettlement plan and would also provide detailed dam designs. The estimated cost for the study was £1 670 000.

The request was for funding to support the feasibility study/design. Such a study is essential before committing capital investment. No negative factors to supporting the study are apparent. Other than there is no indication provided as to whether Capital Investors have been identified/approached. This has been an issue for CRIDF decision making on other Projects recently.



River Gauging Stations

The proposal was for the design, construction and equipping of three (3) river gauging stations on the Great Usuthu, Mbuluzana and Mbabane rivers. The Project will contribute to the management of transboundary waters in both the Umbeluzi and Usuthu River Basins. The Mbabane and Mbuluzane rivers are both tributaries of the Umbeluzi. The Umbeluzi and Usuthu rivers are two of the major rivers in Swaziland, both flow into Mozambique and both have been the subject of major floods affecting Mozambique in the past.

The Station on the Mbabane River is to provide data on the magnitude of flows passing through the capital city of the country. On an occasional basis the city is flooded and there is no gauging station to quantify the amount of flow for proper planning of the drainage system in the city. The gauging station on the Great Usuthu River is upstream of the LUSIP abstraction canal and will help to measure flows on the Great Usuthu River which flows into Mozambique. This station would help control river flows in a bid to ensure that enough flows reach downstream Mozambique. The total estimated cost of the Project is £390 000.

Recommendations

All five Project proposals passed CRIDF's Screen 1 Eligibility Assessment. They all have transboundary elements, are concerned with issues that will become more important with Climate Change (Droughts and Floods) and would all provide indirect benefits to poor communities in Swaziland and Mozambique. Specific recommendations for each proposal follow:-



Dinabanye Community Water Supply

The Project requires finance to appoint engineers to design and manage the Project and finance for construction. CRIDF could supply both of these (or at least provide for design, and secure construction finance elsewhere). CRIDF also needs to confirm bankability via screen 2 assessment including confirming the legality/feasibility of the Impala WUA releasing water from South Africa to Swaziland.



Establishment of a Water Resources Information Management System for Swaziland DWA

Supply Computer hardware and software, and Technical Assistance for establishing systems and training staff. As a quick-win, CRIDF should support the Project and build Swaziland's capacity to deal with its neighbours on an equal footing, technically, technologically and through water resources manageability. The recommendation is to proceed to Screen 2 bankability assessment.



Mnjoli Dam Emergency Preparedness Plan

Supply Computer Hardware and Software for flood analysis. Provide Technical Assistance to provide the technical aspects and training described in the Project design. CRIDF could fund these aspects from its own resources, or assist DWA to raise the funds elsewhere. The recommendation is to proceed to Screen 2 bankability assessment.



Nondvo Dam Feasibility Study

Determine whether investment in a Feasibility Study prior to commitment from a finance source is an acceptable way to proceed. If so, proceed to screen 2 bankability assessment, and provide financial

support for a Feasibility Study. CRIDF could provide that support via procurement of a consultancy to do the study following agreement on a MoU with Swaziland Government/DWA.



River Gauging Stations

The Project requires financial support for the detailed design, construction and equipping of three river gauging stations. It is recommended that CRIDF proceed to screen 2 bankability assessment and, if screen 2 is positive, provide this support via its own procurement processes following agreement on a MoU with Swaziland Government/DWA.



Potential CRIDF Investment

Total potential commitment from CRIDF to Swaziland would be £2 592 500 if the Nondvo Dam Feasibility Study is supported, and £922 500 if it is not. It is recommended that these amounts are worthwhile investments with long-term wide-ranging benefits, if few immediate infrastructure installations.

CRIDF 

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