

Terminal Evaluation

of the

Pangani River Basin Management Project

Comprising

The UNDP/GEF Mainstreaming Climate Change into Integrated Water Resources Management in Pangani River Basin Project (Tanzania)

00053407 (PIMS 3308)

and

The EU Pangani Project

Contract No. 9 ACP.RPR. 39 Commitment No. 73 Strengthening Participation and Planning for IWRM in Pangani Basin, Tanzania

Annexes to Final Report
April 2012









Government of Tanzania – UNDP/ GEF – EU – IUCN











TERMS OF REFERENCE (TOR) FOR TERMINAL EVALUATION

The Pangani River Basin Management Project (PRBMP) that comprises

the UNDP/GEF Mainstreaming Climate Change into Integrated Water Resources Management in Pangani River Basin Project (Tanzania): 00053407 (PIMS 3308)

AND

The EU Pangani Project – Contract No. 9 ACP.RPR. 39 Commitment No. 73 (Strengthening participation and planning for IWRM in Pangani Basin, Tanzania).

1. INTRODUCTION

The work described in these Terms of Reference (ToR) is for a consultant evaluation team to conduct a terminal evaluation of the above mentioned project. The purpose of the evaluation is to assess the relevance, performance and success of the activities undertaken by the project and extract good practices and lessons learned for the portfolio level learning.

2. BACKGROUND

The Pangani River Basin drains Mount Kilimanjaro and Mount Meru in northern Tanzania and flows to the Indian Ocean in the town of Pangani in Tanga Region. The Pangani Basin has an estimated population of 3.7 million people, most of whom rely, either directly or indirectly, on agriculture for their livelihoods. The River and its Basin are greatly important to Tanzania, in terms of hydro-power, irrigation, fisheries, livestock etc. Irrigated agriculture in the basin (estimated as 30,000 to 40,000 ha) forms a significant contribution to Tanzania's food security and supports almost 3 million livelihoods.

Currently there is not enough water to meet the demand in the Pangani Basin, yet the Pangani Basin Water Board continues to receive requests for new water permits from local, municipal and industrial investors. Climate change and reducing water supplies had yet to be taken into consideration in the allocation process. Conflicts are also emerging between various water users, such as commercial farms, small farmers and livestock keepers. The natural environment has yet to be recognized as an important water user and at present receives hardly any consideration in an already over-allocated resource.

The Pangani Basin Water Board (PBWB), the body responsible for the equitable and sustainable water resources management and allocation of the Pangani Basin, has launched a multi-donor funded Pangani River Basin Management Project (PRBMP). The PBWB aims to achieve this end based on the IWRM principles and according to the National Water Resource Management Policy (2002) and the Water Resource Management Act (2009). The financial and technical support was secured initially from the Government of Tanzania, the International Union for Conservation of Nature (IUCN) through its Water & Nature Initiative (WANI) and the Global Environmental Facility (GEF) through UNDP, then later from European Union (EU). Additional funding has supported the implementation and scaling up of the PRBMP objectives and has included the Global Water Initiative (a partnership funded by the Howard G Buffett Foundation), and the Climate Change and Development project (a

Pan-African project funded by the Ministry of Foreign Affairs of Finland and implemented by IUCN). These projects have been implemented in an integrated manner.

An overview of Project finance, from 2002 is summarised in the table below:

Source	Duration	Funding	Funding US\$
WWC to WANI: Dialogues Pilot Project	2003 - 2004	US\$ 69,875	US\$ 69,875
DfID to WANI: Environmental Flows Pilot	2003 - 2005	US\$ 70,000	US\$ 70,000
Project			
DfID to WANI: Environmental Economics Pilot	2003 - 2005	US\$ 125,000	US\$ 125,000
Project			
WANI Pangani Demonstration Site:	2002 - 2004	US\$ 70,000	US \$70,000
Development			
WANI Pangani Demonstration Site:	2004 - 2007	US\$ 1,000,000	US\$ 930,000
Implementation			
Government of Tanzania	2004 - 2006	US\$300,000	US \$300,000
EU Water Facility	2006 - 2011	EUR	US\$ 2,218,461
		1,707,822	
UNDP/GEF Climate Change	2007 - 2011	US\$1,000,000	US\$ 1,000,000
Total:	2002 - 2010		US\$ 4,783,336

Each co-finance had/has a separate Project document starting and ending at different periods. The logframes under the different project components address the same goal and have now been harmonised and combined (see Annex 2).

Additional funding complementing PRBMP

Global Water Initiative (GWI)	Sept 2008-	US\$282,773	US\$282,773
	Sept 2009		
Global Water Initiative (GWI)	Sept 2009-	US\$202,568	US\$202,568
	Sept 2010		
Global Water Initiative (GWI)	Sept 2010-	US\$214,889	US\$214,889
	Sept 2011		
Climate Change and Development Project	2009-2011	US\$506,200	US\$506,200

The PRBMP is generating technical information and developing participatory forums to strengthen Integrated Water Resources Management in the Pangani River Basin, including mainstreaming climate change, to support the equitable provision and wise governance of freshwater for livelihoods and environment for current and future generations.

The project initiative started late 2001, with pilot projects undertaken in 2003-04 using IUCN WANI funds. In May 2002, IUCN and PBWO had a Stakeholders Workshop to identify the main actors in the Basin and their needs. IUCN funding for some smaller pilot projects were made available and these were undertaken in 2003-2004 (Dialogue Project; Environmental Flows Project; Environmental Economics Project; and Transboundary Collaboration on Lake Jipe).. IUCN in partnership with the Ministry of Water and Livestock Development (MoWLD)¹ and the World Bank, convened a training workshop in March 2003 entitled, Building Capacity to Implement an Environmental Flow Programme in Tanzania. As a result of the Training Workshop and subsequent exchange visits, IUCN, the Ministry of Water and the international practitioners designed a project that would focus both on building capacity within Tanzania to implement Environmental Flow Assessments (as well as generating technical information to support water management, Following this, addition funds

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¹ Now the Ministry of Water (MoW)

from IUCN-WANI (USD 1 million) and from the Tanzanian Government (USD 300,000) were secured and partnership agreement were signed with MoWLD, PBWO and IUCN. This funding was exhausted in June 2007.

The EU project started its implementation in October 2006 with this main objective as to support the equitable provision of freshwater in the Pangani Basin for the environment and for the livelihoods for current and future generations. To make the basin's water managers and water users better able to manage water resources and prepare for reduced flows. The EU project implementation ended June 14th 2011.

The UNDP/GEF Project under the PRBMP was developed with a specific purpose to mainstream climate change considerations into the ongoing efforts to develop and implement the Integrated Water Resources Management Plan in the Pangani River Basin. It supports the PBWB and water users in the basin to build their climate change adaptation capacity and reduce their vulnerabilities against adverse impacts of climate change. The UNDP/GEF project started its implementation in August 2007 and the project activities were completed by end of June 2011.

The PRBMP was executed by the Pangani Basin Water Board. The Pangani Basin Water Office (PBWO), the operational arm of the PBWB, signed a MOU with IUCN Eastern Africa Regional Office (EARO)² to receive technical and execution support from IUCN ESARO. PBWO³ with technical and execution support from IUCN ESARO forms an Implementation entity and the Project Management Unit (PMU) was established in the PBWO in Moshi. Other implementing partners include SNV and local NGO Pamoja. The PMU was responsible for the day-to-day coordination of activities supported by various projects under the PRBMP. The PRBMP has established one steering committee to steer all projects under the PRBMP in a coordinated and harmonized manner in order to realize potential synergies among various activities and to maximize the overall effectiveness of the PRBMP. Please note for clarity each of the institutions identified to in this paragraph will be referred to be their current names (see footnotes)

2.1 Project goal and objective

The project goal is that Integrated Water Resources Management in the Pangani Basin strengthened, including mainstreaming climate change to support the equitable provision and wise governance of freshwater for livelihoods and environment for current and future generations.

The objective of the project is that water users and managers in Pangani Basin are empowered to manage and allocate water resources with consideration for climate change, the environment and other technical information, through consultative processes and the sound framework of an IWRM.

The Project has been supporting the PBWB in transitioning into using the principles of Integrated Water Resources Management (IWRM), specifically in providing technical information to support in the allocation process; in strengthening water managers and water

² Now Eastern and Southern Africa Regional Office (ESARO)

³ Now known as the Pangani Basin Water Board (PBWB) – this includes the board members and the staff that implement board decisions

users to participate in IWRM; and subsequently in developing an IWRM plan. The Project has been structured into four main technical project components (also referred to as "results"):

- Result 1: Increased understanding of environmental, economic and social implications of different river flow scenarios under expected climatic conditions and increased capacity to collect and analyze such flow assessment information.
- Result 2: Water users strengthened and empowered to participate in IWRM and Climate Change adaptation processes through dialogue and decentralised water governance.
- Result 3: Water Sector's vulnerability to climate change understood and pilot actions generate lessons in adaptation.
- Result 4: Basin Water Office coordinates other sectors and stakeholders in the development of an IWRM Plan.

In addition, the project administration and management is defined as one component:

• Result 5: Project implemented effectively & efficiently to the satisfaction of all stakeholders

The project is one of the first field-based climate change preparation projects in Eastern Africa with strong links to basin and national planning and policy, and as such builds national and regional capacity, provide lessons and serve as a national and regional demonstration site.

3. UNDP/GEF MONITORING and EVALUATION (M&E) POLICY

The Monitoring and Evaluation (M&E) policy at the project level in UNDP/GEF has four objectives: i) to monitor and evaluate results and impacts; ii) to provide a basis for decision making on necessary amendments and improvements; iii) to promote accountability for resource use; and iii) to document, provide feedback on, and disseminate lessons learned. A mix of tools is used to ensure effective project M&E. These might be applied continuously throughout the lifetime of the project – e.g. periodic monitoring of indicators -, or as specific time-bound exercises such as mid-term reviews, audit reports and final evaluations.

In accordance with UNDP/GEF M&E policies and procedures, all regular and medium-sized projects supported by the GEF should undergo a final evaluation upon completion of implementation. A final evaluation of a GEF-funded project (or previous phase) is required before a concept proposal for additional funding (or subsequent phases of the same project) can be considered for inclusion in a GEF work program. However, a final evaluation is not an appraisal of the follow-up phase.

Final evaluations are intended to assess the relevance, performance and success of the project. It looks at early signs of potential impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. It will also identify/document lessons learned and make recommendations that might improve design and implementation of other UNDP/GEF projects.

These requirements are extended to the EU component of the Project.

5. OBJECTIVES OF THE EVALUATION

The main objective of this evaluation is to provide the project partners i.e. GoT, PBWB, GEF, UNDP, EU, IUCN, and the community with an independent assessment of the key achievements of the project as compared to the objectives and outcomes reflected in the

project document and other documents officially adopted/approved by the Project Steering Committee during the project implementation. Assess the project expected outcomes and their sustainability and suitability for policy related review inputs and best practices for community adaptation. The evaluation results are envisaged to identify and discuss the lessons learned, through measurements of the changes in the set indicators, summarize the experiences gained and technical achievements, and recommend future policy dialogues.

6. TASK AND SCOPE OF THE EVALUATION

The scope of the evaluation will cover the effectiveness, efficiency and relevance of the Pangani River Basin Management Project that has been implemented through EU and UNDP GEF funding. For the UNDP/GEF intervention, particular attention is made to evaluate its success in mainstreaming climate change adaptation options in the Pangani River Basin. It will assess the achievement of the project in generating information for water managers to enhance water allocation in the basin, community water resources management strategies and information sharing among key partners and stakeholders in the water sector.

The assessment of the project impacts and achievements during the implementation period and the extraction of lessons learned both in terms of financial and technical approaches, require a proper evaluation of the project achievements and to measure the improvements or changes in the designed indicators, as a result of the project implementation, compared to the base line parameters. A set of indicators were identified during development of Monitoring and Evaluation framework for this project.

The following represents the minimum coverage of points to be included, but the evaluation should be adapted to specific concerns and issues that may be raised:

The mission will assess the:

- a. Relevance of the project in terms of current development priorities and needs.
- b. Clarity and realism of the project's development and immediate objectives, including specification of targets and identification of beneficiaries and prospects for sustainability.
- c. Quality, clarity and adequacy of project design including:
 - clarity and logical consistency between, inputs, activities, outputs and progress towards achievement of objectives (quality, quantity and time-frame);
 - realism and clarity in the specification of prior obligations and prerequisites (assumptions and risks);
 - realism and clarity of external institutional relationships, and in the managerial and institutional framework for implementation and the work plan;
 - Likely cost-effectiveness of the project design.
- d. Efficiency and adequacy of project implementation including:
 - availability of funds as compared with budget for both GEF and nationally funded components (i.e. track co-financing);
 - the quality and timeliness of input delivery by partners
 - managerial and work efficiency;
 - implementation difficulties;
 - adequacy of monitoring and reporting;
 - the extent of national support and commitment and
 - the quality and quantity of administrative and technical support.

- e. Project results, including a full and systematic assessment of outputs produced to date (quantity and quality as compared with the work plan and progress towards achieving the objectives). For the UNDP/GEF interventions, relevant objectives of the Special Climate Change Fund (SCCF objectives) should be considered when project results are assessed. The Adaptation Monitoring and Assessment Tool (AMAT) will be provided and may be referenced to aid this assessment process
- f. The mission should examine in particular:
 - The degree to which project outputs have been defined based on adequate consultation with potential product users, and used and internalised by the national focal point institutions,
 - The outcomes of the consultation processes used by the project,
 - The scope for uptake by other related initiatives in the region,
- g. Review the clarity of roles and responsibilities of the various agencies and institutions and the level of coordination and efficiency of partnership between relevant stakeholders. In particular look at the roles of the Project team, PBWB, PBWO, Pamoja, district authorities, SNV, IUCN, UNDP, EU, VPO-DOE and MOW.
- h. Assess the level of stakeholder involvement in the project from community to higher Government levels and recommend on whether this involvement has been appropriate to the achieving goals of the project.
- i. Describe and assess efforts of UNDP (CO and UNDP-GEF) and the European Union in support of the implementation.
- j. Review donor partnership processes, and the contribution of co-finance.
- k. Examine the potential of scaling up and replication of good practices from the project outcomes, identifying how will it be financed and, who will be responsible for financing and implementation.
- I. Based on the GEF evaluation procedure, provide rating for each project outcome indicating at what level has been achieved. Information on the rating system will be provided.

Based on the above analysis the mission will draw specific conclusions and make recommendations for any necessary further action by Governments, EU, GEF, and/or UNDP and other partners. The mission will draw attention to any lessons of general interest. Any proposal for further assistance should include precise specification of objectives and the major suggested inputs, outputs and outcomes.

7. METHODOLOGY

The terminal evaluation will be conducted in a participatory manner through a combination of a review of the key project documentation, interviews with project stakeholders and site visits.

The national and international consultants should work together as a team towards producing the evaluation report. The national consultant will be responsible for providing any necessary background information and preparation of the agreed parts of the report. The international consultant will be accountable for the overall quality of the report, timely submission of required outputs and submission of the deliverables, including the final report.

The evaluation team is expected to be familiar with the project through the document review prior to the commencement of the field mission. The documents will be made available by IUCN. The following documents must be reviewed by the team:

- EU and UNDP/GEF Project Documents including addendums
- Project implementation reports (APR/PIR's);
- Annual technical progress reports and work plans of the various implementation task teams;
- Mid Term Evaluation report and Management Responses;
- Minutes of the project Steering Committee Meetings;
- Financial Reports to UNDP/GEF and EU;
- Reports of the studies undertaken by the project such as EFA reports, Vulnerability Assessment report, Groundwater assessment, etc.

Logistical arrangement required for the field mission will be provided by the PMU, PBWB, and IUCN to ensure the maximum exposure to the project sites and stakeholders both in the basin and in Dar es Salaam.

The field mission will include visits with the EU, UNDP Country Office⁴, PMUPBWB, IUCN, Ministry of Water, VPO-DoE, IUCN, EU, SNV, Pamoja as well as selected national partners and stakeholders. This includes interviews with key individuals both within the project, government staff, NGOs, private sector and project beneficiaries mainly communities and water user associations.

8. EXPECTED OUTPUTS

The consultants shall provide the project partners and the PMU with a comprehensive report with the following:

- (i) Impacts and key project achievements identified and documented according to the project indicators
- (ii) Project achievements and sustainability in relation to the project design
- (iii) Relevance of the project achievements and the national policy development agenda
- (iv) Efficiency and effectiveness of the project in terms of financial and planned activities
- (v) Project shortcomings and lesson learned and policy review for integrating climate change adaptation in the water policy and IWRM.
- (vi) Clear and specific recommendations for future follow-up addressed to the stakeholders in the project.

Proposed outline of the report is attached to this TOR.

9. TIME FRAME

The evaluation will be carried out through a period of 25 working days, which includes a 15-day mission to Tanzania, including field visit in the project site. The assignment will commence in August 2011 and will be completed by November 30th 2011.

⁴ An interview with the UNDP/GEF Regional Technical Advisor must be also arranged.

10. DELIVERABLES

- An inception report with details on interpretation/understanding of the TOR; proposed "Organisation and Methodology" describing the field mission and the way the Team of Experts intends to carry out their assignment within 2 weeks from the contract signature.
- 5 copies of the draft report within 2 weeks from the completion of the field mission for circulation for comments.
- 5 copies of the final report incorporating comments and all annexes no later than 2 weeks after comments are received.

11. Implementation arrangements

The evaluation will be conducted within 25 days starting from August 30th 2011. IUCN will facilitate the recruitment process and coordinate the evaluation exercise. The consultants will work very closely with the Project Implementation Unit (PIU) and the PBWB in Moshi, IUCN, the Ministry of Water, the European Union Delegation to Tanzania, the UNDP Country Office, the UNDP/GEF Technical Regional Office in Pretoria, SNV and Pamoja. The consultants will be contracted by IUCN ESARO in consultation with UNDP and EU. IUCN ESARO will also facilitate making payments to the consultants upon certification by UNDP/EU and PWBO. Any support required and relevant documents will be provided as necessary to the consultants by IUCN. The PIU will be responsible for logistical arrangements in the field (setting up meetings and organizing travel).

The evaluation will start with a briefing and proposed itinerary to be organized by IUCN.

12. REQUIREMENTS OF THE EVALUATION TEAM

The project is seeking the services of two qualified experts (an international and a national) to conduct the terminal evaluation of the project. The consultants will assess the project achievements and impacts, in consultation with the main project stakeholders.

The International Consultant, who will also serve as the team leader, shall be widely experienced and suitably qualified with regard to IWRM and climate change adaptation. S/he must be an individual with Master's Degree or PhD in Water Resources Management, hydrometeorology, Engineering, Naturals Sciences, Natural Resources management/Environment, or related fields. A minimum of 10 years working in the climate and water resources related aspects or relevant sectors with experience in climate change. Extensive experience in the fields of project formulation, execution, Monitoring and Evaluation is required. Previous involvement and understanding of EU as well as UNDP and/or GEF procedures is a considerable advantage. The consultant should have strong listening and writing skills coupled with relevant experience in results-based monitoring and evaluation techniques.

The National Consultant shall have experience and conversant with national policy development. S/he should be well acquainted with general water sector situation of Tanzania, in particular overall water sector development strategies and programmes. Knowledge and experience in climate change adaptation and in particular impacts of climate change in water resources is a must. The national consultant who will also act as in-country facilitator must have postgraduate qualifications preferably in Engineering, water resources management, Environment Sciences, Economics, and development studies with experience in upstream-downstream policies. At least 7 years of relevant proven experience including Monitoring and

Evaluation. The consultant should be fluent in English and Kiswahili, and possess strong listening and technical writing skills.

Those who are involved in the design and/or implementation stage of the project are not qualified to apply.

Interested teams of consultants should send expressions of interest to: katharine.cross@iucn.org by August 15th, 2011. The expressions of interest should include the following:

- Cover letter
- Proposed plan of how evaluation will be carried out including a timeline
- Qualifications and previous evaluation experience of international and national consultants
- Proposed budget for evaluation which includes costs of consultants and travel

Annex 1: Proposed Outline for the Final Evaluation Report

1. Executive summary

- Brief description of project
- Context and purpose of the evaluation
- Overall rating of project performance against objective and outcome as well as project implementation, main conclusions, recommendations and lessons learned.

2. Introduction

- Purpose of the evaluation
- Key issues addressed
- Methodology of the evaluation
- Structure of the evaluation.

3. The project(s) and its development context

- Project start and its duration
- Problems that the project seeks to address
- Immediate and development objectives of the project
- Main stakeholders
- Results expected.

4. Findings and Conclusions

In addition to a descriptive assessment, all **criteria marked with (R) should be rated**⁵ using the following UNDP/GEF six-point rating scale: Highly Satisfactory (HS), Satisfactory (S), Marginally Satisfactory (MS), Marginally Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU).

4.1.Project Formulation

- Conceptualization/Design (R). This should assess the approach used in design and an appreciation of the appropriateness of problem conceptualization and whether the selected intervention strategy addressed the root causes and principal threats in the project area. It should also include an assessment of the logical framework and whether the different project components and activities proposed to achieve the objective were appropriate, viable and responded to contextual institutional, legal and regulatory settings of the project. It should also assess the indicators defined for guiding implementation and measurement of achievement and whether lessons from other relevant projects (e.g., same focal area) were incorporated into project design.
- <u>Country-ownership/Driveness</u>. Assess the extent to which the project idea/conceptualization had its origin within national, sectoral and development plans and focuses on national environment and development interests.
- <u>Stakeholder participation</u> (R) Assess information dissemination, consultation, and "stakeholder" participation in design stages.

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⁵ Please see guidelines

- Replication approach. Determine the ways in which lessons and experiences coming out of the project were/are to be replicated or scaled-up in the design and implementation of other projects (this is also related to actual practices undertaken during implementation).
- Other aspects to assess in the review of Project formulation approaches would be UNDP comparative advantage as IA for this project; the consideration of linkages between projects and other interventions within the sector and the definition of clear and appropriate management arrangements at the design stage.

4.2. Project Implementation

An overall rating of project implementation employing the six-point rating scale (HS, S, MS, MU, U, HU) should be provided by the review.

- <u>Implementation Approach</u> (R). This should include assessments of the following aspects:
- (i) The use of the logical framework as a management tool during implementation and any changes made to this as a response to changing conditions and/or feedback from M and E activities if required.
- (ii) Other elements that indicate adaptive management such as comprehensive and realistic work plans routinely developed that reflect adaptive management and/or; changes in management arrangements to enhance implementation.
- (iii) The project's use/establishment of electronic information technologies to support implementation, participation and monitoring, as well as other project activities
- (iv) The general operational relationships between the institutions involved and others and how these relationships have contributed to effective implementation and achievement of project objectives.
- (v) Technical capacities associated with the project and their role in project development, management and achievements.
- Monitoring and evaluation (R). Including an assessment as to whether there has been adequate periodic oversight of activities during implementation to establish the extent to which inputs, work schedules, other required actions and outputs are proceeding according to plan; whether formal evaluations have been held and whether action has been taken on the results of this monitoring oversight and evaluation reports.
- <u>Stakeholder participation (R)</u>. This should include assessments of the mechanisms for information dissemination in project implementation and the extent of stakeholder participation in management, emphasizing the following:
 - (i) The production and dissemination of information generated by the project.
 - (ii) Local resource users and NGOs participation in project implementation and decision making and an analysis of the strengths and weaknesses of the approach adopted by the project in this arena.

- (iii) The establishment of partnerships and collaborative relationships developed by the project with local, national and international entities and the effects they have had on project implementation.
- (iv) Involvement of governmental institutions in project implementation, the extent of governmental support of the project.
- Financial Planning: Including an assessment of:
 - (i) The actual project cost by objectives, outputs, activities
 - (ii) The cost-effectiveness of achievements
 - (iii) Financial management (including disbursement issues)
- Co-financing ⁶Execution and implementation modalities. This should consider the effectiveness of the UNDP counterpart and Project Co-ordination Unit participation in selection, recruitment, assignment of experts, consultants and national counterpart staff members and in the definition of tasks and responsibilities; quantity, quality and timeliness of inputs for the project with respect to execution responsibilities, enactment of necessary legislation and budgetary provisions and extent to which these may have affected implementation and sustainability of the Project; quality and timeliness of inputs by UNDP and the government, and other parties responsible for providing inputs to the project, and the extent to which this may have affected the smooth implementation of the project.

4.3. Results

This section should also include reviews and analyses of the following:

- Attainment of Outcomes/ Achievement of objectives (R): Including a description <u>and rating</u> (employing the six-point rating scale) of the extent to which the project's objectives (environmental and developmental) were achieved using Highly Satisfactory (HS), Satisfactory (S), Marginally Satisfactory (MS), Marginally Satisfactory (HU)ratings. If the project did not establish a baseline (initial conditions), the evaluators should seek to determine it through the use of special methodologies so that achievements, results and impacts can be properly established.
- Sustainability. Extent to which the benefits of the project will continue, within or outside the project domain, after GEF assistance/external assistance in this phase has come to an end. Relevant factors include for example: development and quality of a sustainability strategy and/or exit strategy, establishment of financial and economic instruments and mechanisms, mainstreaming project objectives into the economy or community production activities.
- Results with respect to climate change adaptation (guided by AMAT)
- Contribution to upgrading skills of the national staff

5. Recommendations

- Corrective actions for the design, implementation, monitoring and evaluation of the project for future projects.
- Actions to follow up or reinforce initial impacts/results from the project.
- Proposals for future directions underlining main objectives.

6. Lessons learned

This should highlight the best practices and lessons learned in addressing issues relating to relevance, performance and success.

7. Evaluation report Annexes

The Annexes must include at minimum:

- Evaluation TORs
- Itinerary
- List of persons interviewed
- Summary of field visits
- List of documents reviewed
- Questionnaire used and summary of results
- Comments by stakeholders (only in case of discrepancies with evaluation findings and conclusions)

Annex 2: Summary of merged project intervention logic, including sources of funding

GOAL: To strengthen Integrated Water Resources Management in the Pangani Basin, including mainstreaming climate change to support the equitable provision and wise governance of freshwater for livelihoods and environment for current and future generations

OBJECTIVE: Water users and managers in Pangani Basin empowered to manage and allocate water resources with consideration for climate change, the environment and other technical information, through consultative processes and the sound framework of an IWRM plan

RESULT 1: Increased understanding of environmental, economic and social implications of different river flow scenarios under expected climatic conditions and increased capacity to collect and analyze such flow assessment information

- 1.1 Tanzanian technicians capable of assessing environmental, economic and social implications of different water allocation scenarios
- 1.2 Environmental, economic and social implications of various flow scenarios under expected climatic conditions available for the Pangani Basin
- 1.3 Lesson in EFA in Pangani Basin extracted and disseminated to Ministry and other basins

RESULT 2: Water Users strengthened and empowered to participate in IWRM and Climate Change adaptation processes through dialogue and decentralized water governance

- 2.1 WUAs strengthened and empowered in IWRM principles and climate change adaptation
- 2.2 Sub-catchment and basin level forums established and integrate community, district and regional concerns into catchment and basin level water management
- 2.3 Stakeholder awareness raised on climate change and flow assessment results and this information informs water negotiations
- 2.4 Lesson in capacity building to WUAs and establishing stakeholder forums extracted and disseminated to Ministry and other basins

RESULT 3: Coordination between water and climate change sectors strengthened and lessons learned from project activities scaled up to inform other communities, basins and countries

- 3.1 Institutional and information gaps between the basin and national level processes bridged through studies, exchange and collaboration between climate change and water sectors
- 3.3 Pilot activities implement adaptation actions
- 3.3 Experiences and lessons learned in climate adaptations inform other communities, basins and countries

RESULT 4: Basin Water Office coordinates other sectors and stakeholders in the development of an IWRM Plan

- 4.1 Pangani Basin Water Office empowered to coordinate and support IWRM processes
- 4.2 IWRM plan established for Pangani Basin
- 4.3 Financing strategy in place for implementation of IWRM plan
- 4.4 Lessons in IWRM planning in Pangani Basin extracted and disseminated to Ministry and other basins

RESULT 5: Project implemented effectively & efficiently to the satisfaction of all stakeholders

- 5.1 Efficient systems and strategies supporting the project
- 5.2 Key stakeholders aware of project progress and offer steering and guidance to implementation

Key on funding source Blue - WANI Green - EU Red - UNDP/GEF

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Annex 2 Timeline for the Mission

"Terminal Evaluation of the Pangani River Basin Management Project (PRBMP)"

	Task	Location	Duration	,	Start	End
			Torben Lundsgaard	Faustin Maganga		
1	Preparation, set-up of meetings in Dar es Salaam and project area with assistance from IUCN and PIU. Receive and revise relevant documentation. Preparation of draft Inception Report	Int. Consultant: Home office Local Consultant: Dar es Salaam	1	1	27/10	31/10
2	Int. Consultant depart Copenhagen to Moshi	CPH/Moshi	1		29/10	29/10
3	Monday evening: Briefing with Catharine Cross IUCN. Discuss priorities/goals, uncertainties, and achievements, and draft Inception Report. Review work plan according to arranged meetings, review documentation	Moshi	1		31/10	31/10
4	Program in Project areas as proposed by IUCN	Project area	4	1	01/11	04/11
5	Faustin Maganga departure	Dar es Salaam/Moshi		1	06/11	06/11
6	Meetings with stakeholders, field visits and workshops in Project area (open, to be arranged)	Project area	3	3	05/11	09/11
7	Preparation of discussion paper (team work)	Moshi	1	1	10/11	10/11
8	Workshop, present and discuss findings (to be arranged)	Moshi	1	1	11/11	11/11
9	TE team return to Dar es Salaam	Project area/Dar es Salaam			12/11	12/11
10	Meetings with key stakeholders, Project coordinator, discussion of main findings and proposals for future actions (to be arranged)	Dar Es Salaam	9	9	17/11	02/12
11	Departure int. consultant	Dar Es Salaam / Copenhagen	1		03/12	03/12
12	Preparation of draft report	Dar Es Salaam / Copenhagen	2	4	05/12	14/12
13	Draft report for circulation and comments	From Copenhagen to IUCN			14/12	14/01 2012
14	Comments to report received	Copenhagen				
15	Final report incorporating all comments and all annexes	Copenhagen/Dar es Salaam	1	1		31 st of January 2012

Annex 3 List of Persons Met

Name	Title/ Organization
Abdalla Said Shah	Head Tanzania Office (IUCN)
Abraham Kanji	Ag. DED (Siha District Council)
Alfred I. Shayo	R.S. Kilimanjaro
Anna Kantola	Programme Officer, Embassy of Finland Dar Es Salaam
Arafa Maggidi	Ing. M&E Focal Person (PBWB)
Bakari Hussein Makalo	Chairman Water User Association (Tanga)
Baptiste Bobillier	Programme Officer, Environment, Energy and Climate Change
Baptiste Boomiei	Delegation of the European Union to Tanzania
Brighton Nyabugege	Irrigation Service Manager (TPC)
Dismas A. Damas	CDO (PBWB)
Edith Waya	Crop Officer (Facilitation team, Hai District Council)
Emmanuel Masichi	
Elibariki Simon	WUA Chairperson Accountant (PBWB)
	Secretary (PBWB)
Fortunata Mwingira Francis A. Songela	Serior Advisor (SNV Tanzania)
<u> </u>	Chairman Water User Association (Hai and Siha districts)
Frank E. Kimaro	
Gabriel Mramboah	Forest Officer (Facilitation team, Hai District Council)
Gertrude Lyatuu	UNDP
Hamza Sadiki	Water Officer (PBWB)
Iddi Rajabu Chongi	Ward Councilor
Isaiah J. Macha	Principal Tech. (PBWB)
Jema J. Ngwale	Programme Officer (Environment) Embassy of Denmark
James P. Tsingay	Chairman Water User Association (Bedc 138-Same)
Jane Joseph	Community Development Officer (PBWB)
Jeroboam Riwa	Principal Technician (Hydrology) PBWB
John Singo	Vice Chairperson, PBWB
Joseph U. Kajiru	
Kamil a. Nkya	Eng. Kilimanjaro Zonal Irrigation
Katharine Cross	UNDP, Regional Water and Wetlands Coordinator, EASRO
Kivugo Kingazi	Accountant (PBWB)
Lister Kongola	Director, Water Resources
Louise Chamberlain	Deputy Country Director. UNDP
Martin Daudi	Hydrogeologist (PBWB)
Noah J. Katigili	District Irrigation Officer (Facilitation team, Hai District Council)
Onesmo Zakaria	Project Coordinator. Pangani River Basin Management Project
Patrich Lwesya	Eng. Tanesco-Hale Hydro Power Station
Philipo Patrick	Hydrologist (PBWB)
Pierre Noel	Field Service Executive Officer (TPC)
Risper Koyo	Environmental Programme Officer. Vice-President Office
Salim I. Lyimo	Hydrologist (PBWB)
Savinus Kessy	Programme Analyst. UNDP
Suzy Shoo	Ward Executive Officer
Sylvand M. Kamugisha	M. Eng. Hydrology and Water Resources (Freelance expert)
Timotheo E. Mmanyi	Village Executive Officer-Ghona village
Tom Ole Sikar	Sector Leader SNV
Tumani M. Mwamalla	Ministry of Water
Vendelin Z. Basso	Principal Technician (Hydrology) PBWB
Victoria Nderumaki	Local Coordinator. Compact Project, UNDP.
Washington Nyakale Mutayoba	Ex-Director of Water Resources. Ministry of Water and Irrigation
William Luanda	Project Manager
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Annex 5: Summary of activities

Table 1: Summary of the Activities Implemented under Result Area 1

	Intervention Logic	Objectively Verifiable	Sources, Means
		Indicator	of Verification
Result 1	Increased understanding of environmental, economic and social implications of different river flow scenarios under expected climatic conditions and increased capacity to collect and analyze such flow assessment information	1.At least 6 Tanzanian technicians trained in Flow Assessment methods by end of year 2 2.Technical information on the social, economic and environmental implications of different water allocation scenarios available by during year 2	Project progress reports Technical reports State of the Basin Report Flow scenario evaluation tool Report on river flow scenarios
Sub- Result 1.1	Tanzanian technicians capable of assessing environmental, economic and social implications of different water allocation scenarios	Tanzanian team generates a technically sound report for a particular water allocation scenario	Project progress reports Scenario evaluation report
Activities	1.1.1 Assemble teams and provide training, mentoring and guided practical experience to flow assessment methods	Service the contract of Southern Waters Environmental Research Company for the training and mentoring of Tanzanian technicians in EFA	Progress reports from Southern Waters; Tanzania team mentored on EFA
Sub- Result 1.2	Environmental, economic and social implications of various flow scenarios under expected climatic conditions available for the Pangani Basin	Detailed evaluation reports available for at least 7 possible water allocation scenarios in Pangani Basin during year 2	Project progress reports Scenario evaluation reports
	1.2.1 Engage a Tanzanian hydrologist to support the FA team 1.2.2 Team collects and compiles environmental, economic and social information about various water allocation scenarios in Pangani Basin	Manage contract consultancies for the specialized studies	Specialized study reports Project progress reports State of the Basin Report
Activities	1.2.3 Team uses data to populate flow scenario evaluation tool and elaborates the environmental, economic and social implications of various flow scenarios		Technical reports Project progress reports Flow scenario evaluation tool
	1.2.4 Team produces technical reports		State of the Basin Report Report on river flow scenarios, Technical reports, Progress report Flow scenario evaluation tool
Sub- Result 1.3	Lessons in EFA in Pangani Basin extracted and disseminated to Ministry and other basins	Ministry and/or other basins aware of Pangani experiences in Flow Assessment by end of year 3 Lessons and experiences in Flow Assessment from Pangani Basin used in other basins by	Report from Annual Water Engineers Conference Annual reports from other basins

		year 5	
Activities	1.3.1 Review of the project monitoring data and consultations with stakeholders to identify key issues in the implementation of flow assessments	Develop methodology and implement the FA internal review	Review report
	1.3.2 Facilitation of stakeholders in a lessons-learning platform	Hold a lessons learning workshop	Workshop report

 Table 2: Summary of Activities Implemented under Result Area 2

	Intervention Logic	Objectively Verifiable Indicator	Sources, Means of
			Verification
	Water Users strengthened and empowered to participate in IWRM and Climate Change	1. At least 50 WUAs have formalized their associations and applied for water permits by year 5	1. Annual reports of PBWO
Result 2	adaptation processes through dialogue and decentralized water governance	Stakeholders are debating water allocations and resolving local conflicts in 3 forums after	2. Constitutions of the forums
		year 3	3. Minutes of WUA meetings
		3. Popularized technical information is available and used to plan, negotiate and make decisions on water allocation in two sub catchments and at basin-level after year 3	4. Minutes of forum meetings
			5. Popular forms in Kiswahili
Sub- Result 2.1	WUAs strengthened and empowered in IWRM principles and climate change adaptation	150 Water Users Associations (WUAs) trained in IWRM principles and climate change adaptation during year 2	1. Records of training sessions
Result 2.1			2. Project progress reports
	2.1.1 Develop training modules in IWRM + Tanzanian water	Identified IWRM; climate change; water policy and legislation content for training modules	Training modules content
Activities	policy + legislation and climate change vulnerability + adaptation measures	TORs and advertisement for dev of training modules	Training modules; identify and select ToTs (CBOs, LGA, extension staff etc)
rictivities	2.1.2 Conduct "Training of	ToT Workshop	ToT workshop report
	Trainers" sessions for both training modules	Review and revise training modules	Revised training modules
Sub-	Sub-catchment and basin level forums established and integrate	2 sub-catchment forums and 1 basin level forum operational in year 3	Constitutions of the forums
Result 2.2	community, district and regional concerns into catchment and basin		Minutes of forum meetings
	level water management 2.2.1 Sub-catchment and basin forum inventory processes	Synthesize WUA baseline/mapping and fill in information gaps	Project progress reports Concept paper on WUAs synthesis report
	2.2.2 Sub-catchment and basin forum design process	Design the forum	Progress reports
Activities	2.2.3 Consultation process on forum design	Popularize the catchment forum (awareness raising and entry points)	Meeting reports
	2.2.4 Establishment of 2 sub- catchment forums and 1 basin forum	Meetings to launch the forums	Launch reports
	2.2.5 Continued technical backstopping to forums		Minutes of forum meetings Project progress reports
Sub- Result 2.3	Stakeholder awareness raised on climate change, IWRM, and flow assessment results and this information informs water negotiations	100+ stakeholder groups aware of environmental, economic and social implications of various water allocation scenarios for Pangani River	Minutes of forums Project Progress reports Interviews
Activities	2.3.1 Translate and repackage	Translation consultancy	Translated documents

	technical information from Result	Publish information brochures/ briefs	Brochures produced
	1 for general public		Project progress reports
	2.3.2 Create awareness among stakeholders on the implications of climate change and likely river flow scenarios	Arrange awareness creation events/ materials (through briefs, presentations, exchange visits, meetings, basin level forum)	Awareness events/materials
Sub- Result 2.4	Lessons in capacity building to WUAs and establishing stakeholder forums extracted and disseminated to Ministry and other basins	Ministry and/or other basins aware of Pangani experiences in capacity building to WUAs and establishing stakeholder forums by end of year 3 Lessons and experiences in capacity building to WUAs and stakeholder forums from Pangani Basin used in other basins by year 5	Report from Annual Water Engineers Conference Annual reports from other basins
	2.4.1 Review of the project monitoring data and consultations with stakeholders to identify key issues in the capacity building and stakeholder forum processes	Develop methodology and implement internal review	Study report
Activities	2.4.2 Facilitation of stakeholders in a lessons-learning platform	Organize lesson learning forums, exchange visits, reports for global distribution, process analysis documentation and dissemination	Workshop report
	Activity 2.4.3: Approaches and lessons from the project shared to influence practice and policy at the national and global level	Develop and make layout of policy briefs - (national level target) Policy briefs and reports for global distribution Publish policy briefs	Policy briefs for national target Policy briefs and reports for global target Policy briefs produced Media products
		4. Develop media products (i.e. participatory video	

 Table 3: Summary Activities Implemented under Result Area 3

	Intervention Logic	Objectively Verifiable Indicator	Sources, Means of Verification
Result 3	Coordination between water and climate change sectors strengthened and lessons learned from project activities scaled up to inform other communities, basins and countries		
Sub- Result 3.1	Institutional and information gaps between the basin and national level processes bridged through studies, exchange and collaboration between climate change and water sectors		
Activities	3.1.1 Collect information on expected climate change patterns and impacts in Pangani Basin	Additional climate change modelling with University of Cape Town (service the contract for the UCT). Training of Tanzanian experts on how to use	Report on CC patterns and impacts Training Report
	3.1.2 Facilitate collaboration and exchange between basin and climate change sectors to review information and identify adaptation actions	information from the model Review and consultation on findings of the climate change study; adaptation actions identified	Identified adaptation actions findings of the climate change study; adaptation actions identified
	Activity 3.1.3 Risk and vulnerability assessment of communities (through CRISTAL using Buffet Funds)		
Sub- Result 3.2	Pilot activities to implement adaptation actions		
Activities	3.2.1 Identify and implement adaptation actions on a pilot basis	Designing and implementation of the cc adaptation measures	Reports
	3.2.2 Monitor and review implementation		
Sub- Result 3.3	Experiences and lessons learned in climate adaptation inform other communities, basins and countries.		
Activities	3.3.1 Project participates in relevant climate change events and forums at national, regional and international levels and communicates results.		

3.3.2 Project contribute Adaptation Policy Fram			
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Table 4: Summary of Activities Implemented under Result Area 4

	Intervention Logic	OVI	Sources, Means of Verification
Result 4	Basin Water Office coordinates other sectors and stakeholders in the development of an IWRM Plan	I. IWRM plan for Pangani Basin produced during year 3 IWRM plan for Pangani Basin gazetted by year 5 3. PBWO active in facilitating intersectoral collaboration and monitoring implementation of IWRM plan in years 2-5	Gazettement notice Meeting reports PBWO annual reports
Sub- Result 4.1	Pangani Basin Water Office empowered to coordinate and support IWRM processes	At least five officers from PBWO and MoWLD demonstrate improved capacity in planning, facilitation, mediation and monitoring and evaluation PBWO integrates IWRM planning, facilitation, mediation and monitoring and evaluation skills into routine institutional activities.	Comparison of skills test (baseline and post training) PBWO annual reports
Activities	4.1.1 Capacity building to basin water office in planning, facilitation, negotiation and mediation and monitoring and evaluation.	institutional activities	Training reports Project progress reports
	4.1.2 Capacity building to Basin Water Office – Equipment and Material Support		
Sub- result 4.2	IWRM plan established for Pangani Basin	IWRM plan for Pangani Basin produced during year 3	IWRM plan Project progress reports
	4.2.1 Review of water models and social, economic and environmental technical information		1.Technical report 2. Project progress reports
	4.2.2 Review sector plans (agriculture, energy, regional & local governance) and identify key plan priorities and components		Technical report Project progress reports
Activities	4.2.3 Consultation among sectors and stakeholders		1.Meeting reports 2. Project progress reports
	4.2.4 Elaboration of plan		IWRM plan Project progress reports
	4.2.5 Consultation on plan, feedback and revision		Meeting reports Project progress reports

Sub- Result 4.3	Financing strategy in place for implementation of IWRM plan	Strategy established by end of year 3 At least 3 contributions mobilized for IWRM plan by year 5	Financing strategy Project progress reports PBWO annual report to PBWB
Activities	4.3.1 Consultancy to develop a sustainable financing mechanism for Pangani Basin IWRM plan		Strategy Project progress reports
Sub- Result 4.4	Lessons in IWRM planning in Pangani Basin extracted and disseminated to Ministry and other basins	Ministry and/or other basins aware of Pangani experiences in IWRM planning by end of year 2 Lessons and experiences in IWRM planning from Pangani Basin used in other basins by year 5	Report from Annual Water Engineers Conference Annual reports from other basins
Activities	4.4.1 Review of the project monitoring data and consultations with stakeholders to identify key issues in the development of IWRM plan	Staff time	Project progress reports
receivities	4.4.2 Facilitation of stakeholders in a lessons-learning platforms		1.Technical report on lessons 2. Project progress reports

 Table 5: Summary of Activities Implemented under Result Area 5

	Intervention Logic	Objectively Verifiable Indicators	Sources, Means of Verification		
Result 5	Project implemented effectively & efficiently to the satisfaction of all	Stakeholders satisfied with project progress	M & E reports		
Result 5	stakeholders	Approved technical and financial reports on 6 monthly basis	Minutes of Steering Committee		
Sub- Result 5.1	Efficient systems and strategies supporting the project	Systems for recruitment, procurement and technical back-stopping functioning within 4 months	Project Implementation Manual		
Result 3.1		Monitoring and evaluation system functioning within 6 months	Project progress reports		
	5.1.1 Develop project implementation manual for recruitment, procurement, financial management, planning, monitoring & evaluation and gender mainstreaming processes and procedures	Prepare Project Implementation Manual (PIM) for signing and adoption by Partners and implement it. Gender mainstreaming (under SNV) concept paper of guidelines/ checklist for gender mainstreaming	PIM signed and implemented 2. Report on guidelines for		
Activities	5.1.2 Manage implementation processes (human resources, communications, travel operations)	Telephone and internet access bills. Office operation costs – stationeries,	gender mainstreaming 1. Bills paid		
		toners & cartridges	2. Office operations procured		
	5.1.3 Facilitate equipment procurement and maintenance	Purchase project equipment: laptop & desktop computers and accessories; project vehicle; motorbikes. Maintenance of equipment	1 laptop, 2 desktop computers & accessories; Toyota Hardtop vehicle;		
		Insure project equipment	Project equipment maintained.		
Sub- Result 5.2	Key stakeholders aware of project progress and offer steering and guidance to implementation participation	Approved technical and financial reports on 6 monthly basis	Project equipment insured Minutes of meetings Timely replenishment of project funds		
	5.2.1 Project planning and monitoring: review logical framework and implementation systems against progress, adaptive management, quarterly and annual	Develop and implement and M& E system through stakeholder consultations. Conduct annual work planning and	1. M& E system operationalised.		
Activities	planning.	2. Conduct aintual work praining and review workshops.3. Conduct quarterly partners progress review meetings	2. Annual work planning and review meeting reports.3. Partners meeting minutes		
		4. Build capacity of stakeholders to implement the M&E system	4. PBWO and other partner staff trained on M & E		

5.2.2 Conduct mid-term review ar final evaluation	nd 1. Conduct mid-term review.	Mid-term review report.
	2. Conduct end of Project evaluation	End of Project evaluation report
5.2.3 Convene partners meetings and project steering committee meetings	Conduct Project Steering Committee meetings on semi-annual basis.	1. PSC meeting minutes and passed decisions.
	2. Produce informative project	
	progress reports for donors and	2. Project implementation
	partners	reports, financial reports

Annex 6 Visit to Pilot Projects

Visits to water conservation and CC pilot projects

Date of visit: 1st of November 2011

Place and name of area of support: Soko spring – Ghona and Kiterini villages

Project background: This initiative was carried out as a result of constant conflicts between the water users over the declining resource and the proposal to back off livestock watering and farming near the spring.

Three cattle troughs have been constructed in Ghona and Kiterini villages to conserve Soko Spring and hence improve spring ecosystem and sustain flows to cutter for multiple needs in the face of prevailing climate change. The initiative started with a support from GEF Small Grants Programs through UNDP (UNDP-COMPACT), which supported 2 cattle toughs and 1 supported by PBWB. Later in 2010 to 2011 PRBMP supported the construction of reserve tank, water supply line and establishment of community organization that will manage the infrastructure and the spring.

Project beneficiaries include East Kahe Water Users Association comprising of 6 Villages namely Soko, Ghona, Kilototoni, Kochakindo, Kiterini and Kyomu.

Project goal: To enhance community participation in water resources management at East Kahe catchment, to improve the ecosystem of Soko spring and sustain supply of water to maximize livelihood resources in the riparian villages.

Outcome: Three cattle troughs, 1 water tank and diesel-pump are in place. The cattle has not started to use the troughs as they are yet to agree on fee charges for operation and maintenance. They plan to hold a general meeting where pricing and the spring's conservation implementation will be discussed and agreed upon.

Observed changes due to Project contribution: The communities have planted trees around the spring and stopped farming activities (agriculture) near the spring as a result of raised awareness on water resources management. They are also aware of climate change issues.

Project performance – implementation issues

- 1: Livestock keepers/pastoralists (most being illiterate) have poor understanding on the benefits of conserving the spring; they still need more awareness campaigns so as to get used to watering their cattle in the troughs.
- 2: The village bylaws as well as the water and environment laws are not well enforced. The Village and Ward Councils may start enforcing through restricting animal watering in the spring as well as penalizing the offenders.
- 3: The pricing of water services at the troughs are not configured yet. The planned meetings with the livestock keepers on the general meeting should take place sooner with technical assistance from the Basin and District Finance and Economics personnel for wise decision making whilst setting the fee charges.

Lessons Learned

- 1: The communities contributed to the project as a positive response towards project implementation
- 2: It is important to agree on fee charges for water services before completion of infrastructure
- 3: More capacity building in terms of enhancing awareness on IWRM is still needed. This includes monitoring and evaluation for project sustainability.

Date of visit: 2nd of November 2011

Place and name of area of support: Mbuguni and Olbil Villages

Background: The implementation of climate change adaptation activities in Mbuguni and Olbil Villages followed community based climate change vulnerability assessments carried out in 2010. This was part of implementation of Pangani River Basin Management Project (PRBMP) that was complemented by another IUCN's Climate Change and Development Project (CCDP). The assessment was aided by CRiSTAL and CVCA tools to facilitate data collection and analysis from community level.

Activities implemented in both villages included capacity building (at district and village level) on the understanding of climate change, its impacts and adaptation; the latter also included establishment of Water Users Association that helps to manage and allocate the declining water resources. In Mbuguni village in particular, poultry keeping and conservation agriculture were piloted as well as water borehole has been drilled in Olbil and Shambarai Burka villages for multiple uses (including drip irrigation).

Project goal: The objective of piloted activities was to contribute to the overall Project goal which is to strengthen Integrated Water Resources Management in the Pangani Basin, including mainstreaming climate change to support the equitable provision and wise governance of freshwater for livelihoods and environment for current and future generations.

Outcome: Strengthened community resilience to impacts of climate change

Brief analysis and status of the situation

Water User Association has been formed to link up-and downstream users. This has helped to resolve water use conflicts and allocate water equitably. Also through the association continuous capacity building and exchange visits has been carried out to cross-fertilize community knowledge within and outside the basin. In addition, the awareness of communities on issues of climate change has been raised; and capacity of district councils and basin authorities has been built on community based assessment of climate change impacts and are now being incorporated in their annual plans.

Project performance – implementation issues

- Some proposed adaptation activities needs time to undermine cultural barrier e.g. destocking of cattle is not yet embraced by pastoral (Maasai) community. A continuous awareness rising is recommended with the use of local focal points (a trained Maasai).
- Adaptation activities needs to be built on community knowledge and cultural norms hence needing community based assessment to precede implementation. This has affected implementation of activities, as budgets could in no way be predetermined during project design. As a result most activities were finalized by the end of the project which left no or little project monitoring and backstopping to communities. It is recommended to have enough budgets for follow-up activities.
- Many activities e.g. rain water harvesting and landuse plans have been implemented in Meru and other district councils. This is partly due to or drawn from assessment report facilitated by the Project. However, progress and impacts of these activities has been challenging to monitor as they are implemented and reported through district councils. It is recommended that basin authority is facilitated to have the capacity to coordinate other actors at least at a forum level to have activities and experiences documented

Annex 7: List of Project Documents

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- 2. IUCN. 2003. Pangani Basin: A Situation Analysis. IUCN Eastern Africa Regional
- 3. IUCN. 2009. The Pangani River Basin: A Situation Analysis, 2
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- 9. Kulindwa, K. 2005b. Payment for Environmental Hydrological Services for Pangani River Basin, Tanzania. IUCN Eastern Africa Regional Program / Pangani Basin Water Office. 12pp.
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- 17. PBWO/IUCN. 2006. EU project proposal document: Strengthening Participation and Planning for IWRM in Pangani Basin, Tanzania 52pp.

- 18. PBWO/IUCN 2006. Scenario Selection Report: Water-related issues and trends in the Pangani River Basin and the selection of preliminary scenarios for analysis. Unpublished Technical Report. Pangani River Basin Flow Assessment, Moshi, 23pp.
- 19. PBWO/IUCN. 2007. Socio-economic Baseline Assessment: The Role of River Systems in Household Livelihoods. Unpublished Technical Report. Pangani River Basin Flow Assessment, Moshi, 58 pages.
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- 21. PBWO/IUCN. 2007. Estuary Health Assessment. Unpublished Technical Report. Pangani River Basin Flow Assessment, Moshi. 123 pp.
- 22. PBWO/IUCN. 2008. Task 5 Report: An assessment of understanding and knowledge gaps. Unpublished Technical Report. Pangani Basin Water Office, Moshi and IUCN Eastern Africa Regional Program. 54 pages.
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- 41. PRBMP. 2009. Training of Trainers on Integrated Water Resources Management. Module 1: Participatory Planning, Stakeholder Participation and Gender Mainstreaming in Integrated Water Resources Management and Development. Prepared by Leodgard Haule.
- 42. PRBMP. 2009. Training of Trainers on Integrated Water Resources Management. Module 2: Integrated Water Resources Management (IWRM). Prepared by Willie Mwaruvanda.
- 43. PRBMP. 2009. Training of Trainers on Integrated Water Resources Management. Module Resource Management, Financial Management and Conflict Management in Water Resource Management and Development. Prepared by Basil Liheta.
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VIDEOs

- 1. Tales of Water, 2007: Simulizi za Maji katika Bonde la Pangani
- 2. BBC World Earth Report 2008: Pangani Basin

Annex 4: Merged LFA

Pangani River Basin Management Project: Proposed Merged Logframe UNDP/GEF & EU

proposed merged GOAL	To strengthen Integrated Water Resources Management in the Pangani Basin, including mainstreaming climate change to support the equitable provision and wise governance of freshwater for livelihoods and environment for current and future generations			
UNDP/GEF: Mainstreaming Climate Change into IWRM in Pangani River Basin		EU: Strengthening Participation and Planning for IWRM in Pangani Basin, Tanzania		
Development Objective	To mainstream climate change into Integrated Water Resources Management in the Pangani Basin, so that it may support the equitable provision of freshwater for the environment and for livelihoods for current and future generations	Overall Objective	The Pangani Basin supports equitable provision and wise governance of freshwater for livelihoods and the environment for current and future generations	
proposed Water users and managers in Pangani Basin empowered to manage and allocate water resources with consideration for climate change, the environment and other technical information, through consultative processes and the sound framework of an IWRM plan				
UNDP/GEF: Mainstreaming Climate Change into IWRM in Pangani River Basin EU: Strengthening Participation and Planning for IWRN Pangani Basin, Tanzania			·	

Outcome	Management and allocation of water in Pangani Basin includes climate change preparation & adaptation and environmental considerations in a sound IWRM framework	Specific Objective	Empowered water users and managers in Pangani Basin take decisions about the basin's diminishing water resources based on technical information, consultation and an agreed IWRM plan
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			onmental, economic and social implications of different river flow scenarios under increased capacity to collect and analyze such flow assessment information
	Expe	cted sub-results	Activity Groups
1.1	Tanzanian technicians capable of assessing environmental, economic and social implications of different water allocation scenarios		1.1.1 Assemble teams and provide training, mentoring, and guided practical experience to flow assessment methods
	Environmental, economic and social implications of various flow scenarios under expected climatic conditions available for the Pangani Basin		1.2.1 Team collects and compiles environmental, economic and social information about various water allocation scenarios in Pangani Basin
1.2			1.2.2 Team uses data to populate flow scenario evaluation tool and elaborates the environmental, economic and social implications of various flow scenarios
			1.2.3 Team produces technical reports
1.3	Lesson in EFA in Pangani Basin extracted and disseminated to Ministry and other basins		1.3.1 Review of the project monitoring data and consultations with stakeholders to identify key issues in the implementation of FA
			1.3.2 Facilitation of stakeholders in a lessons-learning platforms

EU: Strengthening Pa Pangani Basin, Tanza	rticipation and Planning for IWRM in nia	UNDP/GEF: Mainstreaming Climate Change into IWRM in Pangani River Basin	
Result 2		Output 1	
Tanzanian technicians avail soo water allocation scenarios	cial, economic and environmental information on various	Increased understanding of environmental, economic and social implications of	
Sub results	Activity Groups	different river flow scenarios under expected climatic conditions and increased capacity to collect and analyze such flow assessment information	
2.1 Tanzanian technicians capable of assessing environmental, economic and	2.1.1 Training, mentoring and guided practical experience to	Indicative Activities	
social implications of different water allocation scenarios	flow assessment methods	1.1 Detailed Flow Assessment	
	2.2.1 Assemble teams	Training of at least 10 technicians trained	
2.2 Environmental, economic and social implications of various flow scenarios under expected climatic conditions available for the Pangani Basin	2.2.2 Team collects and compiles environmental, economic and social information about various water allocation scenarios in Pangani Basin 2.2.3 Team uses data to populate flow scenario evaluation tool and elaborates the environmental, economic and social implications of various flow scenarios	1.2 Capacity building for FA and Climate Change adaptation Assessment of Environmental, economic and social implications of	
	2.2.4 Team produces technical reports	 different river flow scenarios under expected climatic conditions conducted Assessment documented Assessment disseminated 	
2.3 Lesson in EFA in Pangani Basin extracted and disseminated to Ministry and	2.3.1 Review of the project monitoring data and consultations with stakeholders to identify key issues in the implementation of EFA		
other basins	2.3.2 Facilitation of stakeholders in a lessons-learning platform		

			ter Users strengthened and empowered to participate in IWRM and Climate Change adaptation processes through logue and decentralized water governance	
	Expected sub-results		Activity Groups	
	WUAs strengthened and empowered in IWRM principles and climage change adaptation		2.1.1 Develop training modules in IWRM + Tanzanian water policy + legislation & climate change vulnerability + adaptation measures	
2.1			2.1.2 Conduct "Training of Trainers"	
			2.1.3 Targeted capacity building to 150+ WUAs in IWRM, Tanzanian water policy and legislation, climate change vulnerability and adaptation measures	
	Sub-catchment and basin level forums established and integrate community, distric and regional concerns into catchment and basin level water management		2.2.1 Sub-catchment and basin forum inventory process	
			2.2.2 Sub-catchment and basin forum design process	
2.2			2.2.3 Consultation process on forum design	
			2.2.4 Establishment of sub-catchment and basin forums	
			2.2.5 Continued technical back-stopping to forums	
	Stakeholder awar	vareness raised on climate change, IWRM,	2.3.1 Translate and repackage technical information from Result 2 for general public	
2.3	and flow assessment results and this information informs water negotiations		2.3.2 Create awareness among local authorities, decision makers, communities and the private sector through briefs, presentations, exchange visits, meetings, basin level forum, on the implications of climate change, IWRM and various likely river flow scenarios	
2.4		ty building to WUAs and establishing is extracted and disseminated to	2.4.1 Review of the project monitoring data and consultations with stakeholders to identify key issues in the establishement of sub-catchment and basin forums	
	Ministry and other basins		2.4.2 Facilitation of stakeholders in a lessons-learning platforms	

EU: Strengthening Pa Basin, Tanzania	rticipation and Planning for IWRM in Pangani	UNDP/GEF: Mainstreaming Climate Change into IWRM in Pangani River Basin Output 2	
Result 3			
Water users strengthened and	empowered to participate in decentralized water governance	Community and the state of a state of the st	
Sub results	Activity Groups	Community participation in climate change adaptation and IWRM strengthened & future climatic vulnerability and risk minimized through	
	3.1.1 Develop training modules in IWRM + Tanzanian water policy + legislation and climate change vulnerability + adaptation	dialogue and adaptation	
3.1 WUAs strengthened and	measures	Indicative Activities	
empowered in IWRM principles and climate change adaptation	3.1.2 Conduct "Training of Trainers"		
and climate change adaptation	3.1.3 Targeted capacity building to 150+ WUAs in IWRM, Tanzanian water policy and legislation, climate change vulnerability and adaptation measures	 2.1 Capacity Building and Institutional development to WUAs Development of training modules At least 10 Water Users Associations (WUA) trained in WUA management and responsibilities Training modules on WUs (management roles etc) and climate 	
	3.2.1 Sub-catchment and basin forum inventory process		
3.2 Sub-catchment and basin level forums established and	3.2.2 Sub-catchment and basin forum design process		
integrate community, district and	3.2.3 Consultation process on forum design	change developed and tested in at least 5 sites	
regional concerns into catchment and basin-level planning	3.2.4 Establishment of 2 sub-catchment and 1 basin forum		
	3.2.5 Continued technical backstopping to forums	2.2 Fatablishmant of sub-catabase and basis local face to	
	3.3.1 Translate and repackage technical information from Result 2 for general public	 2.2 Establishment of sub-catchment and basin-level fora to integrate community, distric and regional level concerns into basin- level planning 	
3.3 Technical information generated in Result 2 informs water negotiations	3.3.2 Create awareness among local authorities, decision makers, communities and the private sector through briefs, presentations, exchange visits, meetings, basin level forum and other appropriate media, on the implications of climate change and various likely	Launching and establishing of Kikuletwa Sub-catchment forum and Pangani River Basin forum	
3.4 Lessons in capacity building to WUAs and establishing subcatchment and basin level	river flow scenarios 3.4.1 Review of the project monitoring data and consultations with stakeholders to identify key issues in the establishment of subcatchment and basin forums	2.3 Stakeholder's awareness raising of climate change and the results of FAs	
forums extracted from the Pangani experience and disseminated to Ministry and other basins	3.4.2 Facilitation of stakeholders in a lessons-learning platform	Process of developing the Catchment forum documented a disseminated	

proposed RESULT 3 Water sector's vuln		Water sector's vulnerability to clir	mate change understood and pilot actions generate lessons in adaptation
Expected sub-results		cted sub-results	Activity Groups
	Institutional and information gaps between the basin and national level processes bridged through studies, exchange and collaboration between climate change and water sectors		3.1.1 Collect information on expected climate change patterns and impacts in Pangani Basin
3.1			3.1.2 Facilitate collaboration and exchange between basin and climate change sectors to review information and identify adaptation actions
3.2	Dilet activities impl	loment adaptation actions	3.2.1 Implement adaptation actions on a pilot basis
3.2	Pilot activities implement adaptation actions		3.2.2 Monitor and review implementation
3.3	Experiences and lessons learned in climate adaptation		3.3.1 Project participates in relevant climate change events and forums at national, regional and international levels and communicates results
	inform other comm	nunities, basins and countries	3.3.2 Project contributes to the UNDP Adaptation Policy Framework

EU: Strengthening Participation and Planning for IWRM in Pangani Basin, Tanzania	UNDP/GEF: Mainstreaming Climate Change into IWRM in Pangani River Basin
	Output 3
	Coordination between water and climate change sectors strengthened and lessons learned from project activities scaled up to inform other communities, basins and countries
	Indicative Activities
No Corresponding Result	3.1 Bridging the institutional gaps between the basin and national level processes
	3.2 Analysis of experiences and lessons learned to inform other communities, basins and countries
	 Lessons and experiences from the project integrated into basin-level planning and management
	3.3 Contribute to the UNDP Adaptation Policy Framework Vol. 2

proposed RESULT 4 Basin Water Office coordinates other sectors and stakeholders in the development of an IWRM Plan			her sectors and stakeholders in the development of an IWRM Plan
	Ехре	cted sub-results	Activity Groups
4.1 Pangani Basin Water Office empowered to coordinate a		r Office empowered to coordinate and	4.1.1 Capacity building to Basin Water Office in planning, facilitation, negotiation and mediation, monitoring and evaluation
7.1	support IWRM processes		4.1.2 Capacity building to Basin Water Office – Equipment and Material Support
			4.2.1 Review of water models and social, economic and environmental information
	IWRM plan established for Pangani Basin		4.2.2 Review of sector plans (agriculture, energy, regional & local governance, among others) and identification of key plan priorities and components
4.2			4.2.3 Consultation among sectors and stakeholders
			4.2.4 Elaboration of plan
			4.2.5 Consultation on plan, feedback and revision
4.3	Financing strategy in place of implementation of IWRM plan		4.3.1 Consultancy to develop a sustainable financing mechanism for Pangani Basin IWRM plan
4.4	Lessons in IWRM planning in Pangani Basin extracted and disseminated to Ministry and other basins		4.4.1 Review of the project monitoring data and consultations with stakeholders to identify key issues in the development of IWRM plan
7.7			4.4.2 Facilitation of stakeholders in a lesson-learning platforms

EU: Strengthening Pa Pangani Basin, Tanza	rticipation and Planning for IWRM in nia	UNDP/GEF: Mainstreaming Climate Change into IWRM in Pangani River Basin
Result 1		
Basin Water Office coordinates IWRM plan for Pangani Basin	other sectors and stakeholders in the development of an	
Sub results	Activity Groups	
1.1 Pangani Basin Water Office empowered to coordinate and support IWRM processes	1.1.1 Capacity building to Basin Water Office in planning, faciliation, negotiation and mediation, monitoring and evaluation	No Corresponding Output
1.2 IWRM plan established for	 1.2.1 Review of water models and social, economic and environmental information 1.2.2 Review of sector plans (agriculture, energy, regional & local governance, among others) and identification of key plan priorities and components 	
Pangani Basin	1.2.3 Consultation among sectors and stakeholders	
	1.2.4 Elaboration of plan	
	1.2.5 Consultaton and feedback	
1.3 Financing strategy in place for implementation of IWRM plan1.3.1 Consultancy to develop a sustainable financing mechanism for Pangani Basin IWRM plan		
1.4 Lessons in IWRM planning in Pangani Basin extracted and disseminated to Ministry and other basins	 1.4.1 Review of the project monitoring data and consultations with stakeholders to identify key issues in the development of IWRM plan 1.4.2 Facilitation of stakeholders in a lessons-learning 	
outor paolito	platform	

	osed merged RESULT 5	Project implemented effect	emented effectively & efficiently to the satisfaction of all stakeholders		
	Expected sub-results		Activity Groups		
			5.1.1 Develop project implementation manual for recruitment, procurement, financial management, planning, monitoring & evaluation and gender mainstreaming processes and procedures		
5.1	Efficient systems and strategies supporting project		5.1.2 Manage implementation processes (human resources, communications travel, operations)		
			5.1.3 Facilitate equipment procurement and maintenance		
	Key stakeholders aware of project progress and		5.2.1 Project planning and monitoring: review logical framework and implementation systems against progress, adaptive management, quarterly and annual planning		
5.2			5.2.2 Conduct mid-term review, final evaluation		
	offer steering and guidance	guidance to implementation	5.2.3 Convene partners meetings, project steering committee meetings, participate in PBWB meetings		
			5.2.4 Produce informative project progress reports		

EU: Strengthening Pa Pangani Basin, Tanza	rticipation and Planning for IWRM in nia	UNDP/GEF: Mainstreaming Climate Change into IWRM in Pangani River Basin	
Result 4		Output 4	
Project implemented to the sati	sfaction of all stakeholders	Project implemented effectively & efficiently to the satisfaction of all partners	
Sub results	Activity Groups	Indicative Activities	
4.1 Efficient systems and strategies supporting the project	 4.1.1 Develop project implementation manual for recruitment, procurement, financial management, planning, monitoring & evaluation and gender mainstreaming procedures 4.1.2 Implement procedures (e.g. recruit staff, procure equipment, establish financial systems, support and monitor project, etc) 	 Steering Committee Meetings held bi-annually Annual/quarterly work-planning 	
4.2 Annual work planning sessions benefit from evaluation and wide stakeholder participation	 4.2.1 Project planning and monitoring: review logical framework and implementation systems against progress, adaptive management, annual planning 4.2.2 Conduct mid-term review, Final evaluation 	 Training for Pangani Basin Water Office in participatory planning, monitoring and evaluation PIR conducted Audits conducted, as required Timely procurement of equipment 	
4.3 Key stakeholders aware of project progress and offer steering and guidance to	4.3.1 Convene partners meetings, project steering committee meetings	•	
implementation	4.3.2 Produce informative project progress reports		

Summary of proposed merged project intervention logic

GOAL: To strengthen Integrated Water Resources Management in the Pangani Basin, including mainstreaming climate change to support the equitable provision and wise governance of freshwater for livelihoods and environment for current and future generations

OBJECTIVE: Water users and managers in Pangani Basin empowered to manage and allocate water resources with consideration for climate change, the environment and other technical information, through consultative processes and the sound framework of an IWRM plan

RESULT 1: Increased understanding of environmental, economic and social implications of different river flow scenarios under expected climatic conditions and increased capacity to collect and analyze such flow assessment information

- 1.1 Tanzanian technicians capable of assessing environmental, economic and social implications of different water allocation scenarios
- 1.2 Environmental, economic and social implications of various flow scenarios under expected climatic conditions available for the Pangani Basin
- 1.3 Lesson in EFA in Pangani Basin extracted and disseminated to Ministry and other basins

RESULT 2: Water Users strengthened and empowered to participate in IWRM and Climate Change adaptation processes through dialogue and decentralized water governance

- 2.1 WUAs strengthened and empowered in IWRM principles and climate change adaptation
- 2.2 Sub-catchment and basin level forums established and integrate community, district and regional concerns into catchment and basin level water management
- 2.3 Stakeholder awareness raised on climate change and flow assessment results and this information informs water negotiations
- 2.4 Lesson in capacity building to WUAs and establishing stakeholder forums extracted and disseminated to Ministry and other basins

RESULT 3: Coordination between water and climate change sectors strengthened and lessons learned from project activities scaled up to inform other communities, basins and countries

- 3.1 Institutional and information gaps between the basin and national level processes bridged through studies, exchange and collaboration between climate change and water sectors
- 3.3 Pilot activities implement adaptation actions
- 3.3 Experiences and lessons learned in climate adaptations inform other communities, basins and countries

RESULT 4: Basin Water Office coordinates other sectors and stakeholders in the development of an IWRM Plan

- 4.1 Pangani Basin Water Office empowered to coordinate and support IWRM processes
- 4.2 IWRM plan established for Pangani Basin
- 4.3 Financing strategy in place for implementation of IWRM plan
- 4.4 Lessons in IWRM planning in Pangani Basin extracted and disseminated to Ministry and other basins

RESULT 5: Project implemented effectively & efficiently to the satisfaction of all stakeholders

- 5.1 Efficient systems and strategies supporting the project
- 5.2 Key stakeholders aware of project progress and offer steering and guidance to implementation

Summary of proposed merged project intervention logic, including sources of funding

GOAL: To strengthen Integrated Water Resources Management in the Pangani Basin, including mainstreaming climate change to support the equitable provision and wise governance of freshwater for livelihoods and environment for current and future generations

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- 5.1 Efficient systems and strategies supporting the project
- 5.2 Key stakeholders aware of project progress and offer steering and guidance to implementation

Key on funding source Blue - WANI Green – EU Red – UNDP/GEF

Summary of project intervention logic including sources of funding

GOAL: To strengthen Integrated Water Resources Management in the Pangani Basin, including mainstreaming climate change to support the equitable provision and wise governance of freshwater for livelihoods and environment for current and future generations

OBJECTIVE: Water users and managers in Pangani Basin empowered to manage and allocate water resources with consideration for climate change, the environment and other technical information, through consultative processes and the sound framework of an IWRM plan

RESULT 1: Increased understanding of environmental, economic and social implications of different river flow scenarios under expected climatic conditions and increased capacity to collect and analyze such flow assessment information

1.1 Capacity building on Environmental Flow

UNDP/GEF Funding 224,668

1.2 Data on environmental flow available under various scenarios

UNDP/GEF Funding 82,940

1.3 Lesson in EFA disseminated

EU Funding = 73,100

RESULT 2: Water Users strengthened and empowered to participate in IWRM and Climate Change adaptation processes through dialogue and decentralized water governance

2.1 WUAs strengthened in IWRM and climate change adaptation

WANI Funding = EU Funding = 116,024

UNDP/GEF Funding = 118,180

Total 234,204

2.2 Sub-catchment and basin level forums established and integrated

WANI Funding = EU Funding = 131.450

2.3 Stakeholder awareness raised on climate change and flow assessment

EU Fundina = 102.780

2.4 Lesson in capacity building to WUAs and establishing stakeholder forums disseminated

EU Funding =155,226 UNDP/GEF Funding = 50,000

Total 203,226

RESULT 3:

Coordination between water and climate change sectors strengthened and lessons learned from project activities scaled up to inform other communities, basins and countries

3.1 Institutional gaps bridged

UNDP/GEF Funding= 21.000

3.2 Pilot activities implement adaptation actions

UNDP/GEF Funding 85,000

3.3 Experiences and lessons learned inform others

UNDP/GEF Funding = 20,000

RESULT 4: Basin Water Office coordinates other sectors and stakeholders in the development of an IWRM Plan

4.1 Pangani Basin Water Office empowered

EU Funding = 83,400

4.2 IWRM plan established

EU Funding = 103,260

4.3 Financing strategy in place for implementation of IWRM plan

EU Funding =45,860

4.4 Lessons in IWRM planning disseminated

EU Funding = 61,600

RESULT 5: Project implemented effectively & efficiently to the satisfaction of all stakeholders

5.1 Efficient systems and strategies supporting the project

WANI Funding EU Funding 809,624 UNDP/GEF Funding 342,203

Total = 1,151,827

5.2 Key stakeholders aware of project progress

WANI Funding EU Funding = 314,149 UNDP/GEF Funding 55,360

Total = 445,501