UNITED NATIONS ENVIRONMENT PROGRAMME

Terminal Evaluation of the UNEP/DGEF project GF/1020-04-02 "Sustainable Land Use Planning For Integrated Land and Water Management For Disaster Preparedness and Vulnerability Reduction in the Limpopo Basin" GFL/2328-2770-4805

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Disclaimer

The views expressed in this report are those of the evaluator alone and do not necessarily reflect the views or policies of UNEP, or of any individual or organisation consulted.

Acronyms and Abbreviations

AGRITEX	Agricultural Technical and Extension Service
DCP	Department of Civil Protection
DM	Disaster Management
DNA	National Directorate of Water Affairs
DWA	Department of Water Affairs
DWAF	Department of Water Affairs and Forestry
EMA	Environmental Management Authority
GEF	Global Environment Facility
GIS	Geographic Information System
INGC	National Institute for Disaster Management
IUCN	International Union for Conservation of Nature
IWRM	Integrated Water Resources Management
LBAP	Limpopo Basin Action Plan
LBPTC	Limpopo Basin Permanent Technical Committee
LIMCOM	Limpopo Watercourse Commission
MICOA	Ministry for Coordination of Environmental Affairs
PIR	Project Implementation Review
RSAP	Regional Strategic Action Plan
SADC	Southern Africa Development Community
SADC WSCU	SADC Water Sector Coordination Unit
SLM	Sustainable Land Management
SRAP	Sub Regional Action Programme
UNEP	United Nations Environment Programme
UNEP/DGEF	UNEP Division of Global Environment Facility Coordination
UN-HABITAT	United Nations Human Settlements Programme
ZINWA	Zimbabwe National Water Authority

Executive Summary

1. The UNEP/GEF supported project on Sustainable Land Use Planning for Integrated Land and Water Management for Disaster Preparedness and Vulnerability Reduction in the Lower Limpopo Basin was implemented from September 2004 to September 2007. The objective of the project was to develop and implement participatory land use tools and plans for sustainable land management in the Lower Limpopo River Basin in order to reduce the impact of floods on land, ecosystems and human settlements.

2. The project aimed to

   - Establish an inter-country co-operation framework for integrated land use management in the lower Limpopo river basin,

   - Stimulate supportive legal, regulatory and policy changes at all levels relevant to flood mitigation, vulnerability reduction and land use planning,

   - Develop effective flood forecasting and early warning systems linked to national sustainable land management and disaster management programmes and improving response at community level,

   - Build institutional and community capacity for implementing participatory land use planning for sustainable land management to reduce direct or indirect[1] in occasion of a flood event impact of floods on natural ecosystems, and

   - Elaborate and adopt disaster preparedness techniques, contingency plans and awareness campaigns that will strengthen capacities of riparian communities to cope with flood events.

3. A terminal evaluation of the project was undertaken in May and June 2008. The evaluation aimed at establishing the extent to which the project objectives had been attained. The evaluation addressed the attainment of the project's planned results, the sustainability of its outcomes, its catalytic effect, the achievement of planned outputs and activities, the project's monitoring and evaluation system, and processes affecting the attainment of project results. It also considered lessons learned from the design and implementation of the project.

4. The evaluation methodology used included telephonic consultations with the UNEP representatives including the project task manager, telephonic and in person consultations with project management and technical support personnel including the institutions involved in the implementation of the project which include UN-HABITAT, National executing agencies such as the Ministry of Minerals, Energy and Water Affairs, Department of Water Affairs (Botswana); the Ministry for Coordination of Environmental Affairs, National Directorate of Territorial Planning (Mozambique); the Department of Water Affairs and Forestry (DWAF) & National Disaster Management Centre (South Africa); South Africa Weather Service; and the Ministry of Environment and Tourism, Environmental Management Agency (Zimbabwe). Field visits to 3 of the 9 intervention implementation sites were made. A desk review of project documents was also carried out.

5. Despite challenges and delays during the first year of implementation, overall performance of the project in terms of achievement of planned outputs and activities was satisfactory. The original project design excluded one of the four riparian states of the Limpopo River basin. The inclusion of the fourth state, Botswana, as requested by the other three riparian states initially included in the project, was a necessary condition to work on and then adopt the Limpopo Basin Action Plan to be prepared during the project. This is indicated in the minutes of the first two sub-regional meetings (Maputo and Harare). Without Botswana inclusion, the Basin Plan would have been meaningless for all riparian countries, and LIMCOM would not have accepted to be involved in the initiative. The inclusion of Botswana resulted in additional activities but at no additional cost to the GEF and therefore without matching resources for implementation.

Recommendations

6. **Recommendation 1:** The Limpopo Basin Action Plan should be finalized and final recommendations for its adoption made to LIMCOM / LBPTC.

7. **Recommendation 2:** It is recommended that all key outputs of the project be disseminated widely to all intended users. In particular the river basin game and didactic poster should be disseminated widely in Botswana, South Africa, and Zimbabwe in order to reach a wider audience. Furthermore, there has to be a clear plan for dissemination of the cartoon video produced. The country teams no longer have funds for this. While acknowledging the efforts already made by UN-HABITAT to secure funding for follow up activities it is recommended that UN-HABITAT, through its continued presence and activities in the basin countries, assist LIMCOM or other implementation agency in implementation of the LBAP or components of it.

8. **Recommendation 3:** UN-HABITAT should ensure that local level interventions that were initiated should be completed at Shashe (Zimbabwe) and at GaMampa (South Africa) where they are not complete.

9. **Recommendation 4:** Sustainability of the outcomes of the project depends on the outputs reaching the stakeholders and continued application in the long term. This is possible where results are shared with stakeholders. In the specific case of Zimbabwe, feedback to district officials and community stakeholders needs to be carried out.

10. **Recommendation 5:** From inception, this project recognized the Limpopo Basin Permanent Technical Committee / Limpopo watercourse Commission (LIMCOM) as a key partner and user of the project outcomes. The LBAP provides a good basis for the riparian states to discuss integrated land and water management to mitigate the impacts of floods. In order for LIMCOM to implement (or to lead the implementation of) all aspects of the LBAP, it is necessary that the proposed Limpopo Basin Action Plan be better aligned with the mandate of LIMCOM if the project team continues to view LIMCOM as the strategic implementation partner. It is recommended that UN-HABITAT continues its discussions with LIMCOM to ensure buy in to the action plan to increase chances of sustainability of this key project outcome.

11. **Recommendation 6:** As a way forward and a means to ensure wider use, applications and sustainability of project outcomes, it is recommended that UN-HABITAT synthesizes project outcomes into a single, concise report for wide dissemination. Further, a shorter summary for policy and decision makers with key messages and policy implications should be produced and disseminated.

12. **Recommendation 7:** It is recommended that UN-HABITAT collaborates with WaterNet and provides flood-forecasting and early warning training material for inclusion into the Integrated Water Resources Management (IWRM) and Water Resources Engineering and Management (WREM) curricula for the regional Master of Science degree and professional training offered by WaterNet. This is not only a way of reaching a wider group of professionals but also ensuring that future water practitioners, decision, and policy makers in the southern Africa region are aware of the need to incorporate land use planning in water resources management..

13. **Recommendation 8:** Implementation of the project started at least three years after the concept initiation and submission of the PDF-A[1]. The time lag between concept development, funding, and actual implementation of project was long. Many changes occur in the countries, especially relating to national priorities as well as staffing. The executing agency usually needs to re-mobilize support from the participating governments resulting in a drawn out project initiation phase leaving a shorter period for implementation of activities. For similar future multi-country, multi-stakeholder projects, it is recommended that UNEP and the GEF should adapt or encourage the lead time concept to allow for the time required to mobilize all stakeholders. This will provide the executing agency

[1] Project implementation started in the same year that it was approved.

with the necessary time to bring all stakeholders on board, ensuring sustainability of outcomes.

1. Introduction

1.1. Overview of the Project

14. The project addressed floods, flood mitigation, and flooding risk reduction in the Limpopo River basin based on the premises that flooding and floods are an integral part of the hydrological cycle and cannot be managed in isolation. Given the recent repeated frequent flooding affecting the lower Limpopo River Basin, concerned Southern Africa Development Community (SADC) countries have shown interest to address this issue. The Government of Mozambique, the country most affected due to its downstream location, formulated a specific request of assistance (i.e. Donors Appeal in 2000 in which UNHSP [HABITAT] and UNEP participated through a proposal addressing environmental issues).
15. The Limpopo River Basin is shared among four countries, the Republic of South Africa, the Republic of Botswana, the Republic of Zimbabwe and the Republic of Mozambique. South Africa is the upstream country while Mozambique is the downstream country. The basin supports several important ecosystems as well as an estimated 5,200 human settlements. Most of the settlements are in the South Africa and Mozambique parts of the basin. Less than 10% of the basin settlements are located in Zimbabwe and Botswana. The basin population is about 14 million people.

16. The project focus was establishing a regional comprehensive framework that considers:
    a. an integrated approach to land and water management;
    b. a reliable flood forecasting and warning system linking the three countries (Mozambique, South Africa and Zimbabwe);
    c. effective mechanisms to receive, analyse and react to early warning information as well as to implement disaster mitigation measures and contingency plans;
    d. capacity building for local and national authorities focusing on cross-sectoral planning, implementation of actions and monitoring, and
    e. at community level, eco-sustainable land use planning based on participatory approaches including vulnerability reduction strategies.

17. The project was based on the assumption that the establishment of the above framework would promote participatory land use planning for sustainable land management in the Lower Limpopo River Basin in order to reduce the impact of floods on land, ecosystems and human settlements. The project was designed to contribute to the objectives of the GEF Operational Programme 15 on Sustainable Land Management aimed at promoting integration of land use planning systems through strengthening of participatory institutional mechanism at national and local levels and across sectors as a contribution to improving livelihoods and protecting ecosystem stability, functions and services; incorporation of sustainable land management practices into systems for flood preparedness and strengthening of information management systems to support decision-making at the national and local levels. The project was designed to contribute to GEF Strategic Priority I under Sustainable Land Management (SLM-1): (1) Targeted Capacity Building with a special focus on the integration of land use planning systems through the incorporation of sustainable land management practices into systems developed for extreme climatic events.

18. The project was designed for implementation in the lower Limpopo River basin in Mozambique, South Africa, and Zimbabwe. However, during project execution, Botswana was included too. Inclusion of Botswana was necessary as to have an inclusive project and to ensure uptake of the project findings by the basin countries.

19. The project was initially a two year project, to be implemented from September 2004 to September 2006. Implementation was extended to September 2007 at no additional costs. The extension was mainly as a result of delays in the initial year associated with recruitment of relevant staff as well as the process of including Botswana that has a significant part of its population living in the upper part of the Limpopo River basin.

Project rationale and strategy

20. The lower Limpopo basin presents a highly significant vegetal and animal diversity, which enhance the global importance of its ecosystems. The savannah is the dominant eco-region in the area and includes a rich panorama of large mammals, birds and endemic plant species. Its high natural value stimulates important eco-tourism and tends to be conserved. The river floodplain also holds significant wetlands that provide ecosystem services including flood mitigation, groundwater recharge and water filtration. The wetlands also host endemic species of flora and fauna.

21. The recent frequent flooding affecting the lower Limpopo River Basin, particularly the floods of 2000 has prompted the basin countries to act to address this issue. Mozambique in particular, being the most affected country due to its downstream location, has championed activities in this regard. Outcomes of this project will still be particularly relevant for these countries as demonstrated by the recent floods of the Zambezi River in January 2008.

22. As natural phenomena, flooding and floods are an integral part of the hydrological cycle and cannot be managed in isolation. High flows propagate along the drainage network of a basin, thus affecting both upstream and downstream areas of the basin. Management of the floods and related impacts therefore should focus on the entire basin.

23. The main target group of the project were the communities living in flood prone areas of the basin. Most of these communities, particularly in Mozambique, were severely affected by the 2000 floods. It was considered important that these communities that are currently located in the Limpopo River flood plain to meet various needs including proximity to agricultural lands be capacitated so that the loss of life and damage to infrastructure can be minimised in future flooding incidents.

Goals, objectives and components

24. The overall objective of the project was to develop and implement participatory land use tools and plans for sustainable land management in the Lower Limpopo River Basin in order to reduce the impact of floods on land, ecosystems and human settlements.

25. To achieve these objectives, the project had two specific components:

    1. A regional integrated land use management plan to lessen land degradation and minimise the risk of losing life and damage to ecosystems in future floods (US$ 687,500; 24% of total budget):

        - Establishing an inter-country co-operation framework for integrated land use management in the lower Limpopo river basin

        - Stimulate supportive legal, regulatory and policy changes at all levels relevant to flood mitigation, vulnerability reduction and land use planning.

    2. Enhanced capacity and effective tools in participatory land use planning and disaster preparedness techniques for sustainable land management to reduce the vulnerability of communities living in flood prone areas (US$ 2,110,000; 75% of total budget):

        - Development of effective flood forecasting and early warning systems linked to national sustainable land management and disaster management programmes and improving response at community level.

        - Building institutional and community capacity for implementing participatory land use planning for sustainable land management to reduce direct or indirect[1] in occasion of a flood event impact of floods on natural ecosystems.

        - Elaboration and adoption of disaster preparedness techniques, contingency plans and awareness campaigns that will strengthen capacities of riparian communities to cope with flood events.

26. The total project budget was $2, 822,500.00 with financing break down as follows:

PDF A:	US$ 25,000
GEF Medium- sized project funding:	US$970,000
Co-financing Government of Mozambique:	US$230,000
Co-financing Government of South Africa:	US$627,500
Co-financing Government of Zimbabwe:	US$210,000
Co-financing UN-HABITAT:	US$760,000

The project was designed to be implemented in two years, from 2004 to 2006.

Changes to the project during implementation

27. Project implementation started in September 2004. A number of notable changes took place during project implementation. These changes impacted the duration of the project as well as the implementation process. The changes are described below.

28. **Project focus area:** The project document and implementation plan were written with a focus on the lower Limpopo basin, and included only three of the four riparian states – Mozambique, South Africa, and Zimbabwe. According to the project manager, Botswana was excluded as there was another GEF funded project for the same basin that covered all four riparian states[2]. The decision to exclude Botswana was made to differentiate the two projects, and possibly increase the chances for obtaining GEF financing by the UN-HABITAT-led project. The decision to exclude Botswana was a consequence of the first review of the pre-proposal by the GEF Secretariat. The review indicated that as there was another project proposed for the whole Limpopo basin, this (UN-HABITAT) project should have focus only in the lower basin. The project focus area was the consequence of a top-down decision taken without consideration of the riparian governments; it led to implementation difficulties for the project management team since the very beginning.

29. It must be noted that it was evident to stakeholders from the riparian countries at the start of implementation that inclusion of Botswana was necessary for sustainability of project outcomes. Moreover, the body that sanctions research and other related work in the Limpopo Basin, the Limpopo Basin Permanent Technical Committee (LBPTC) was more likely to support the project and adopt its outcomes if it was inclusive of Botswana rather than exclusive. Commenting on the initial exclusion of Botswana, one official of the SADC Water Sector Unit said that with the regard to implementation of projects in the Limpopo basin, the riparian governments adopt an "all or none approach". It is unfortunate that the UN-HABITAT and the GEF were not aware that exclusion of one or more states from the project would result in implementation difficulties.

30. **Inclusion of Botswana:** During project implementation and from the start of project implementation there was a push from the three states to include Botswana, the fourth riparian state, in the project in order to make sure that recommendations from the project stood a chance of being accepted by the LBPTC[3] and the basin member countries. Such acceptance of the project outcomes would lead to sustainability of project outcomes. The discussions on the need to include Botswana are well documented in the project regional workshop proceedings, starting with the first sub-regional meeting held in Maputo in 2004.

[2] Regional Groundwater and Drought Management in SADC (A SADC Water Sector Coordination Unit Project funded by the GEF). There are no indications of duplication of activities between the two projects.

[3] Stated by the Chair of the LBPTC at the 2nd sub-regional meeting held in Harare (Workshop Proceedings).

31. The process of ensuring buy-in from Botswana was cumbersome and time consuming; it cost the project team valuable resources from the project's implementation budget.[4] When the process was eventually concluded nearly halfway through project implementation, activities were added to the project. All activities were to be implemented within the same budget. Resources needed to be made available for implementing some activities in Botswana. This was done from the existing budget. UN-HABITAT and other partners are convinced that while resources had to be spread thinner to accommodate the inclusion of Botswana, the added benefit of having recommendations adopted at basin level far outweighed the "loss of funds" from the other countries.

32. **Changes to project activities:** The project was designed with five main activities and twenty five sub activities. These were considered too many to implement individually.[5] UN-HABITAT would have needed to recruit a consultant for each activity – a cumbersome and expensive process that would not have been cost-effective. To save on costs, several activities were grouped together and formed one set of terms of reference for which an individual consultant was recruited. This was recognized as an important positive change to the implementation process by the project team and national stakeholders.

33. **Project Staffing:** High staff turn over seems to be a challenge for government agencies of the basin countries. The staff turnover was evident at evaluation time. In Botswana, for example, the focal person at the National Disaster Management Directorate moved to another portfolio two months before project end. She was not available for interviewing. Her successor, who in essence is expected to further develop the outcomes from the project, was only involved with the project for two months at the end of its life span. In Zimbabwe the country UN-HABITAT Programme Manager (HPM) took over the project at the beginning of 2006 after the untimely passing of the national project coordinator. In Botswana, organizational change at IUCN seems to have left some activities still pending.

1.2. The Terminal Evaluation

34. The terminal evaluation of the project on Sustainable land use planning for integrated land and water management for disaster preparedness and vulnerability reduction in the lower Limpopo River basin was implemented to determine the extent to which the project achieved the intended objectives.
35. Specifically the evaluation was intended to assess whether:

    - The project assessed and strengthened the legal, regulatory and policy frameworks in order to create a favourable enabling environment for managing flood related impacts in the Lower Limpopo Basin area
    - The project built institutional and human capacity able to mitigate flood driven human and environmental vulnerability via effective tools in participatory land use planning and disaster preparedness techniques for sustainable land management

[4] In total 7 trips to Botswana were made by the project coordinator, the regional coordinator (Herman Timmermans), and the Zimbabwe national coordinator (Joseph Merka) to discuss inclusion of Botswana in the project

[5] From interview with project coordinator

- The project developed and disseminated a regional integrated land use management plan to lessen land degradation and minimise the risk of losing life and damage to ecosystems in future floods

36. The evaluation TOR are found in Annex 1

Evaluation Methodology

37. The evaluation took place between 19 May and 19 June 2008. The evaluation comprised the following steps. There were three aspects to the evaluation methodology. These are described in the following sections.

- A desk review of project documents including, but not limited to:
  (a) The project documents, outputs, monitoring reports (such as progress and financial reports to UNEP and GEF annual Project Implementation Review reports) and relevant correspondence.
  (b) Notes from the Steering Group meetings
  (c) Other related material produced by the project staff or partners.
  (d) Relevant material published by the project or available via the web.

- In-person interviews with project management and technical support including the institutions involved in the implementation of the project which include UN-HABITAT, National executing agencies such as the Ministry of Minerals, Energy and Water Affairs, Department of Water Affairs (Botswana); the Ministry for Coordination of Environmental Affairs, National Directorate of Territorial Planning (Mozambique); the Department of Water Affairs and Forestry & National Disaster Management Centre (South Africa); the Ministry of Environment and Tourism, Environmental Management Agency (Zimbabwe); (see Annex 5 for list of contact names and details).

- Telephone interviews with intended users for the project outputs and other stakeholders involved with this project, including in the participating countries and international bodies.

- Email based questionnaire sent to some government representatives who could not be interviewed in person or were not accessible by telephone.

- Interviews with the UNEP/DGEF project task manager and Fund Management Officer, and other relevant staff in UNEP dealing with Land degradation-related activities as necessary.

- Field visits to three project sites, two in Mozambique and one in Zimbabwe. A total of 8 days were spent in the field, visiting three project sites as well as interviewing relevant stakeholders and community members. The stakeholders interviewed in person include national project coordinators, government employees (departments of water, environment, and disaster management) who made direct contributions to the project and trainers who delivered a training workshop.

38. In all components the evaluation focuses on the three items in paragraph 35.

Limitations and issues not addressed

39. Evaluation of implementation of local interventions is based on the three sites visited: Chilaulene and Maniquenique in Mozambique, and Chikwarakwara in Zimbabwe. Comments made on the implementation of other local interventions are based on observations in the field and discussions with community members, project team (including government officials who were involved on the project), and consultants.

40. A major limitation to the study was the unavailability of some key people who were involved in the project implementation but were not available for various reasons. In particular the regional coordinator of the project who has since moved on to a different location. Other potential interviewees had changed responsibilities and were simply not available for the interview process. The persons available for interviews were in some cases poorly informed about the project.

41. Notes from the steering group meetings were not used in this review as they were not made available.[6]

[6] The project coordinator said these had been circulated widely; he did not have copies.

2 Project Performance

A. Attainment of objectives and planned results

42. To assess the effectiveness of the project in attaining its objectives the objectively verifiable indicators set out in the project document were considered. The assessment is in the following Table 1 shows the basin-wide (regional) achievement of outcomes. The extent to which the objective was achieved in each of the countries varied. To cater for the differences, achievement by country was assessed and is shown in Tables 2 to 5.

Table 1. Basin-wide achievement of objectives

Objectives	Outcomes	Outcome indicators	Status at project completion
Creating a favourable enabling environment for flood mitigation and vulnerability reduction by strengthening of legal, regulatory and policy frameworks and institutional and human capacity building.	A regional integrated land use management plan to lessen land degradation and minimise the risk of losing life and damage to ecosystems in future floods;	• A regional action plan is prepared, agreed and implemented among the three countries; • Enhanced land use planning in at least 50% of the area of one relevant flood prone ecosystem and two rural settlements for each country of the Lower Limpopo basin • Participatory land use plans for sustainable land management to reduce the vulnerability of communities in at least two flood prone cities/towns of each basin country designed and adopted • Participatory tools and methodologies in addressing critical issues concerning flood disaster management and ecosystems preservation developed	• A regional action plan was proposed (the Limpopo Basin Strategic Action Plan (LBAP)). It was presented to the stakeholders in a workshop in December 2006. The LBAP is currently under review by LIMCOM. At the time of the evaluation there was no indication of implementation of the LBAP. • Land use plans were developed for nine settlements as result of the project[7]. In all settlements land use plans were 'adopted' by the communities. • Government officials in Zimbabwe and Mozambique indicated that they will make use of participatory land use planning as a tool in future. • Anticipated use of safe havens by communities – at the two sites visited in Mozambique it is highly likely that if a flooding situation arises the interventions will be utilized by the community.
	Enhanced capacity and effective tools in participatory land use planning and disaster preparedness techniques for sustainable land management to reduce the vulnerability of	• Training in disaster preparedness techniques delivered and informative material disseminated to targeted communities.	• Constitution of the Limpopo flood forecasting task team. The task team started meeting during the project implementation phase. It was indicated that the task team would continue to interact, exchange data, and discuss flood related issues in the basin. The flood forecasting task team continues to be operational. The constitution of the flood forecasting task team is a significant achievement of the project.

[7] Taung and Shoshong in Botswana; Chilaulene, Mabalane, and Maniquenique in Mozambique; GaMampa and Mhinga in South Africa; and Chikwarakwara and Shashe in Zimbabwe.

Objectives	Outcomes	Outcome indicators	Status at project completion
	communities living in flood prone areas.		• Through regular interaction, awareness levels and flood preparedness of the flood forecasting task team comprising members from all countries continues to be enhanced. • Capacity and awareness levels of communities at nine sites and elsewhere in the countries (e.g. Zambezi basin in Mozambique) continues to be enhanced as awareness materials are displayed in public areas (offices)

Table 2. Achievement of outcomes in Botswana

Outcomes	Status at project completion
A regional integrated land use management plan to lessen land degradation and minimise the risk of losing life and damage to ecosystems in future floods	• Participatory land use planning was implemented at Shoshong and Taung villages and contingency plans formulated and adopted by Shoshong and Taung communities. While there are no indications of whether or not these plans will be followed by communities in the long term such skills remain within the communities. • Government officials indicated that they will make use of participatory land use planning as a tool in future. • Action plans for flood vulnerability reduction formulated together with the communities of Shoshong and Taung. The government, through the NDMC, was to assist communities to source funding for implementing action plans.
Enhanced capacity and effective tools in participatory land use planning and disaster preparedness techniques for sustainable land management to reduce the vulnerability of communities living in flood prone areas.	• Representation by Department of Water Affairs (DWA) officials on the Limpopo Basin flood forecasting task force formulated during the early warning and flood forecasting training. The task team provides a forum in which officials of the four countries continue to interact, exchange data, and discuss flood related issues in the basin. • Through regular interaction, awareness levels and flood preparedness of the flood forecasting task team comprising members from all countries continues to be enhanced.

Table 3. Achievement of objectives in Mozambique

Outcomes	Status at project completion
An integrated land use management plan to lessen land degradation and minimise the risk of losing life and damage to ecosystems in future floods;	• Participatory land use planning was implemented at Chilaulene, Mabalane, and Maniquenique and contingency plans formulated and adopted by communities during project implementation. • Territorial Act 19/2007 finalized. Impetus was provided by the project. The act establishes boundaries where territorial planning must be done and prescribes participatory planning processes with communities drawing their own spatial plans.
Enhanced capacity and effective tools in participatory land use planning and disaster preparedness techniques for sustainable land management to reduce the vulnerability of communities living in flood prone areas.	• Continuing exchange of information relevant for flood management with officials from other basin countries through participation on the flood forecasting task force. • The river basin posters displayed in public offices are highly visible (e.g. at Agricultural Research Institute (IIAM) and the Provincial Disaster Management (INGC) in Gaza). • The 'flood proof' school at Maniquenique and the community agricultural center at Chilaulene are visible awareness tools; Awareness will continue to be enhanced in these communities. In the event of another flood, communities will make use of these structures.

Table 4. Achievement of objectives in South Africa

Outcomes	Status at project completion
A regional integrated land use management plan to lessen land degradation and minimise the risk of losing life and damage to ecosystems in future floods;	• Participatory land use plans were developed at two sites, GaMampa and Mhinga in the Limpopo basin. Contingency plans formulated and adopted by communities at the two sites. • Consultants were recruited to implement land use planning exercises at Mhinga and GaMampa. The (Limpopo) Provincial Department responsible for Land Use Planning and Disaster Management as well as all the District Municipalities which comprised of the Vhembe District, the Capricorn District and the local Municipalities, Thulamela and Lepele Nkumpi were invited by fax and/or SMS to all the workshops in these communities. Some of the officials participated in the workshops. The Limpopo Province Department of Agriculture was also represented at the workshop. It therefore appears that government officials were involved as stakeholders not in actual implementation.
Enhanced capacity and effective tools in participatory land use planning and disaster preparedness techniques for sustainable land management to reduce the vulnerability of communities living in flood prone areas.	• Representation on the flood forecasting task force and continued interaction and exchange of information relevant for flood management with officials from other basin countries. • Communities now have capacity to build reinforced houses that are likely to withstand flooding.

	• Continued flood awareness campaigns through schools

Table 5. Achievement of objectives in Zimbabwe

Outcomes	Status at project completion
A regional integrated land use management plan to lessen land degradation and minimise the risk of losing life and damage to ecosystems in future floods;	• Participatory land use planning was implemented at Chikwarakwara and Shashe communities. The Chikwarakwara community recalled the process; they are likely to implement similar planning in future. • Contingency plans formulated and adopted by communities at the two sites. There are no indications of whether or not these plans will be followed by communities in the long term. At Chikwarakwara the main village is located above the flood line (the community members said that the main village is still to be affected by floods); the community members were of the perception that they did not really need a contingency plan. The 2000 floods damaged crops as the fields lie very close to the river level. This is understandable, given that even a 1 in 2 year flood will result in flooding of the field because of the location of the these (see Figure 12 on page 24 - Participatory land use and contingency planning in the Limpopo River basin - Zimbabwe component). The best contingency plan in this case is to move the pump before the rainy season or before each sever rain event (if there is an effective early warning system in place (which there isn't currently)) or to relocate the fields elsewhere (in which case the farmers will lose access to the fertile sediments in / adjacent to the river bed. • Exchange of information relevant for flood management with officials from other basin countries is likely to continue via the flood forecasting task force on which Zimbabwe is represented • District level disaster committee and community level structures for disaster warnings were formed. These are expected to continue to be operational (if resources are available).
Enhanced capacity and effective tools in participatory land use planning and disaster preparedness techniques for sustainable land management to reduce the vulnerability of communities living in flood prone areas.	• Participation in the flood forecasting and early warning training by officials – continued enhanced awareness on flood related issues in the basin • It was indicated that ZINWA was in favour of adopting recommendations for improving data gathering for improved flood early warning • Ongoing awareness campaigns by the local school drama groups will contribute to increased awareness levels beyond the life of the project.

Summary of attainment of objectives

43. Regarding the regional integrated management plan to lessen land degradation and minimise the risk of losing life and damage to ecosystems in future floods, the project succeeded in formulating the basin action plan that was presented to the basin countries for comments at the end of the project. At the end of the project the action plan had been presented to the basin stakeholders. Some stakeholders had given feedback to UN-HABITAT by the time of the terminal evaluation.

44. One of the immediate impacts of the project on early warning was the formation of the flood forecasting and early warning task team. The task team was constituted during the early warning and flood training. All the basin countries are represented on the task team. The task team provides a forum in which officials of the four countries continue to interact, exchange data, and discuss flood related issues in the basin. The task team is an active arm of the Limpopo basin commission (LIMCOM). This team continues to be a key link between the project and LIMCOM and offers a forum in which the four basin countries can continue to exchange flood-related information and other information relevant for flood mitigation.

45. In Mozambique the MICOA director of the Territorial Planning Department indicated that the project had provided an impetus for the finalization of the Territorial Act 19/2007 for establishing boundaries in areas where territorial planning is required. The act prescribes participatory planning processes with the community drawing their own spatial plans[8]. In the same country the project is seen to have catalysed the approval of the National Water Act (2007).

46. In Botswana flood vulnerability reduction and environmental protection action plans for were drawn for Shoshong and Taung, the two communities where participatory land use planning was implemented. The plans included activities such as formation of a formal Taung Village Disaster Management Committee as an appendage of the Village Development Committee, public education/awareness campaigns on disaster preparedness and mitigation, and teaching school children how to swim – pilot infusion of swimming into Taung schools' physical education curricular[9]. The plan for Taung has 12 action items while that for Shoshong has 8. There was commitment nationally to source resources to implement the vulnerability reduction action plans. As reported in the project document "it was clear from the very beginning that implementation of the plans must be driven using local capacity and knowledge. In fact, it is still the project's hope that the plans will become part of a long-term strategy that provides to local administrations and other national stakeholders proper decision planning tools wherewith to empower communities to contribute to the improvement of their own living conditions". One activity that had been initiated was swimming training[10]; this was halted when the project ended.

[8] From interview with National Director, Territorial Planning

[9] As reported in project document "Developing participatory land use tools and plans for sustainable land management in Shoshong Village and Taung Ward, Botswana"

[10] Swimming was identified as a key intervention to reduce vulnerability and loss of life due to floods.

47. At Chikwarakwara in Zimbabwe and Maniquenique in Mozambique communities were aware of the contingency plans. Other than the contingency plans, there are no indications of implementation of participatory land use plans with communities elsewhere in these countries as well as in Botswana and South Africa.

48. Awareness campaigns through school drama activities are continuing in Zimbabwe courtesy of the local schools and the Department of Civil Protection (DCP). In Mozambique the awareness cartoon produced as part of the project was shown to communities in the Zambezi valley affected by floods in 2007. The cartoon continues to be projected in national TV and in flood prone areas in Mozambique even today, especially after the 2007 and 2008 floods.

49. The District Administrator of the Chibuto district in Mozambique said that if the classroom block built through this project at Maniquenique survives a flood of the same magnitude as the 2000 flood, the government is likely to start building 'flood proof' schools in the Chibuto district. Replication of this technology is likely to take place as confidence grows and as the government mobilizes own resources.

50. With the exception of the classroom block built by the community with local materials but following the concepts applied in the project classroom block at Maniquenique, individual community members have not replicated the construction method to build flood proof structures (such as houses) of their own. It is probably too soon to expect replication; such replication may still happen as stakeholders see the benefits of the construction method used.

51. Overall activities aimed at enhancing capacity at national, provincial district, and at community levels were implemented in all four countries. The number and intensity of capacity building activities varied by country as indicated in Table 2, Table 3, Table 4, and Table 5 above. Impact of the capacity building activities depends on the national governments continuing with training activities at national level.

52. The table below shows the breakdown technical capacity training for flood forecasting and early warning to reduce vulnerability to floods. Training was carried out in a workshop held in South Africa in September 2006. The course participants came from the basin countries, and were from diverse disciplines. Generally one person represented a discipline for each country. Two professionals who attended the course were no longer with the government at the time of the review, a little over a year and a half after the project ended.[11] In these two cases there was no net capacity gain for the respective government departments that these participants had come from.

53. The lack of memory about the project on the part of people who were involved in the project is disquieting. Of the twenty seven government officials interviewed during the evaluation, two did not remember the details of the project (they needed to be reminded of the specifics). Five interviewees had vague recollections of the project even though they had each attended one

[11] From the EMA in Zimbabwe and from the NDMO in Botswana.

workshop. One official from the SADC Water Sector Unit admitted not having adequate knowledge on the project to comment.

54. Other than awareness activities related to adhoc dissemination in Mozambique and school drama performances in Zimbabwe, none of the four riparian states are implementing further capacity building or awareness programs to build on the achievements of this project. Some awareness materials were left over in Botswana but these cannot be distributed due to lack of resources. In Zimbabwe awareness materials (the river basin game and educational poster) are available in electronic format. However, the materials cannot be disseminated due to lack of resources for printing as well as distributing where the materials are needed. One can conclude that while the project produced relevant tools in the form of the river basin game and river basin poster, subsequent capacity building and awareness activities that should have capitalized on these tools were weak; outcomes from these activities are minimal.

B Sustainability of Project Outcomes

55. The evaluation of sustainability of outcomes is based on the likelihood of use of land use planning tools by the communities and other stakeholders, sustained capacity and awareness levels of stakeholders, and implementation of the Limpopo Basin Action Plan (LBAP) by governments and LIMCOM.

56. The LBAP was drafted and presented to the project stakeholders at the final sub-regional meeting in December 2006. The LBAP was not implemented as part of the project; it is up to the stakeholders (particularly governments of the basin countries and LIMCOM) to implement the basin action plan. The cautious reception of the government partners to the LBAP is documented in paragraphs 82 to 86. Implementation and sustainability of the basin action plan outcomes depends on its adoption by the partners.

57. Local level interventions that reduce vulnerability of communities that were implemented at seven sites (elevated schools / buildings, rehabilitation of irrigation schemes, and use of the building technology demonstrated in South Africa) were expected to stimulate widespread adoption of interventions in order to reduce vulnerability. There was no evidence of adoption of any of the interventions. It is not possible to judge whether or not there will be widespread adoption in the long term.

58. What was evident at the time of the evaluation were that the problems associated with the interventions that are likely to impact on sustainability of the project outcomes. In Mozambique the elevated classroom block was not yet in use; it was not clear when the Maniquenique community would experience the benefit of the school and possibly start using similar designs for building their own homes and other structures.

59. In Mozambique budgetary constraints meant all relevant stakeholders could not participate in local activities. As indicated by the project coordinator, the project in particular funded at least one technical staff to attend the participatory planning sessions. It would have been too expensive for the project to cost more

provincial staff as this would have implied hiring an extra vehicle. While this was a valid concern, the decision affected provincial government officers from Gaza, the province mostly affected by the Limpopo river basin. These are the officers who, if they remain active, will ensure sustainability of project outcomes. Ideally they should have been fully involved in project activities at all stages. While irrigation schemes in the floodplains are damaged by floods, interventions related to rehabilitation of irrigation schemes are not in line with the objectives of the project. The government departments involved in the project do not have the mandate for irrigation development and rehabilitation. Problems with the interventions at Mabalane (Mozambique) and Chikwarakwara (Zimbabwe) were evident before the project ended. While these interventions may seem relevant from a poverty perspective, the accomplishments from these activities were not sustainable as described below:

60. At Chikwarakwara irrigation scheme in Zimbabwe immediate problems, included water distribution and land allocation. Other potential problems are associated with operation and maintenance pump and engine. The continued functioning of the scheme is questionable as there was no training for operation and maintenance. The Zimbabwe National Water Authority (ZINWA) is expected to carry out maintenance of the irrigation equipment. With the nearest ZINWA office located at Beitbridge, more than 100km form the community and with the current socio-economic problems in the country, it is unlikely that benefits from the irrigation scheme will be sustainable.

61. The Chikwarakwara community lacks the capacity to operate and maintain the pump on a day to day basis. Training was not provided to the community members or to the resident Agricultural, Technical, and Extension (AGRITEX) officer, the government official responsible for supporting agricultural production in the community. The pump, like all other pumps in public irrigation schemes in Zimbabwe, remains under the authority of ZINWA. When there is a break down or need for routine maintenance, the community has to wait for a ZINWA official to come from the provincial office at Beitbridge, 100km by gravel road. This is not an optimal solution especially given the current economic situation in Zimbabwe.

62. There were high expectations for the project to deliver a lot more solutions than were in fact delivered. For example the community plan indicated that clearing of canals and putting up a pump house so that the pump would be sheltered were expected as part of the interventions. The community also expected a bell from the project. The bell would be used for warning community members of a pending flood. When asked why they could not fabricate a bell locally they indicated lack of resources as a constraint. These are tasks that normally any organized community would implement as their own contribution to the project. According to the project manager clearing of canals was supposed to be done by the community as in-kind contribution to the project. However, the community still anticipates external intervention for problems that they can easily solve on their own. One cannot expect the outcomes of the project to propagate further without continued injection of resources from outside (by projects or the government).

63. It is likely that awareness programs at Chikwarakwara will continue. The DCP initiated awareness campaigns with the school in the form of drama. According to the school headmaster these are ongoing.

64. At Shashe in Zimbabwe there seems to have been communication problems with the community. Building of the school was delayed and only started towards the end of the project. The Beitbridge DA gave assurances that local level interventions would be completed now that his office was directly involved in the process. But the community still has to source financing to complete the school as the project resources have been exhausted. Given the economic situation in the country it is likely that the school block will not be completed; an indication of low likelihood of sustainability.

Financial resources

65. Following the points above, it is evident that the project implementation successes were dependent on external financing. While governments endorsed the project and wholly supported the project, the government co-financing provided covered staff time of the government personnel involved in project implementation – government staff were involved in activities such as mobilizing communities, community workshops, and attending project meetings. Where implementation of local interventions was not completed it was mainly due to inadequate finances or poor in-kind contribution by communities.

66. Other than in-kind co-financing leveraged from the participating governments and UN-HABITAT, the project was not successful in identifying additional co-financing. UN-HABITAT obtained co-financing from the government of Italy. This was used to finance the production of the didactic cartoon.

67. The partners including UN-HABITAT expected the proposal developed within the context of this project and submitted to the GEF to be accepted and resulting in additional funding under the climate change window. This project would have advanced further implementation of some of the concepts explored in this project. The chances of sustaining the benefits of this project at the end of GEF's support would have been higher.

Socio-political

68. Implementation of the LBAP requires buy-in and commitment by LIMCOM and basin countries to adopt the recommendations made.

69. Use of participatory land use plans also requires commitment by the governments especially for working with affected communities and provision of financial and other resources required for such use.

70. The project had quite high stakeholder ownership, particularly at government level. New governmental initiatives (for example the community swimming training in Botswana and awareness campaigns by the CPD in Zimbabwe) had taken off. If the necessary budgetary support is available at national level, these activities are likely to be sustained. In Mozambique, the awareness materials produced in the Limpopo were used in the Zambezi basin during the flooding events of 2007.

Institutional framework and governance

71. Initially from reading the project documents and workshop reports it would seem that there is adequate awareness and buy-in from governmental institutions and community stakeholders. On this basis one would expect that project outcomes can be sustained. However, the government structures do not have adequate capacity to take on extra programming. Also, there is high staff turnover in some countries, undermining the prospects of continuity of programs initiated. From this point of view, sustainability of project outcomes will be low.

72. The government institutions are also tasked with delivering their regular programs that are budgeted for within ministerial budgets. Unless flood mitigation is adopted as a regular activity by one of the relevant departments, it will remain an activity without budget and will therefore be sidelined. For example, in the case of Gaza province in Mozambique, since the project ended dissemination of project outputs (river basin game and the didactic poster for awareness) take place at community level only when government officers are in the field for other activities as there is no budget allowance for further dissemination of the outputs of this project[12]. Similarly, in Botswana where some project outputs are available, these are not being disseminated.[13]

C. Achievement of Outputs and Activities

73. Despite the slow start of the project due to recruitment procedures, delays experienced while negotiating to get Botswana on board and participate in the project implementation, as well as constraints associated with limited project budget and ambitious project objectives, the project produced outputs that are relevant to the basin countries and communities. The effectiveness with which the overall objective of the project was met was assessed on the basis of the outputs produced and the extent to which other national or basin-wide initiatives were stimulated. While there is significant variability among the different activities and the quality of outputs as elaborated below, the overall effectiveness is assessed as satisfactory.

[12] From interview with MICOA official in Gaza Province
[13] From telephonic interview with DWA official

74. Similar activities were implemented in each country and at each site; however, different methods were utilized in some cases. For example, the flood hazard derivation methods used at Shashe and Chikwarakwara was not used at the other project sites. While the project was also trying to promote cooperation and consistency in models and methodologies used it applied different methods to common problems. However, it must be acknowledged that the project team was flexible enough to adjust to local conditions and availability of skills in the methods utilized.

75. At least 24 reports, a number of maps and other documents were produced, each as a stand alone report, addressing a specific component of the project. This is a significant achievement by the project. A synthesis report drawing all the relevant and key findings together, representing the two main outputs of the project will make the project findings report easier to read, comprehend, and disseminate further. The maps, for example, are quite informative. But they are presented outside the reports and with limited accompanying documentation.

76. The project had a detailed log frame with objectively verifiable indicators that could be used to track progress. These indicators were used as a guide for assessing the attainment of project objectives. The status of activities, specific comments, and assessment of the quality of product is given in the table below.

77. Specific comments targeted at the two main project outcomes, a regional integrated land use management plan to lessen land degradation and minimise the risk of losing life and damage to ecosystems in future floods and enhanced capacity and effective tools in participatory land use planning and disaster preparedness techniques for sustainable land management to reduce the vulnerability of communities living in flood prone areas are in the paragraphs following the table.

Specific Activities	Target at the end of the project	Status at the time of terminal evaluation	Quality of output and comments
Specific Activities for 1.1.			
1.1.1 Carry out baseline study on the current cooperation status in flood mitigation and preparedness among the three countries, especially as per the provisions of the LBPTC.	Baseline study, indicating levels of cooperation, and recommendations to improve such cooperation;	**Complete**	Satisfactory. National baseline reports provide a good overview for each country Baseline studies were planned for 3 countries; with the inclusion of Botswana four baseline studies were implemented
1.1.2 Carry out a review of the SADC RSAP, SRAP and of the LBPTC decisions and activities concerning the development of Integrated Water Resources Management (IWRM) IWRM and sustainable land use planning in the Lower Limpopo River Basin.	Review of the RSAP and the LBPTC, especially with regard to their application in the integrated management and sustainable land use in the Lower Limpopo	**Complete**	Moderately satisfactory. Implemented as part of the sub-regional baseline study. This output does not necessarily add any new information particularly with regard to their implementation; it simply consolidates the information which is generally available. The project failed to add value to indicate any key weaknesses that could be addressed by this project or other separate proposed project
1.1.3 Carry out a review of, and where not in existence, facilitate production of Memoranda of Understanding and of other types of regional agreements leading to the preparation of a regional plan of action.	Inventory of Memoranda of Understanding or any other agreements; new agreements are formulated;	**Complete**	Moderately satisfactory. While key missing MoUs were identified, only a general proposal for additional agreements was made in the document. It must be pointed out that at the time of project design the SADC protocol on shared watercourses was in place. With hindsight, the project should perhaps have focussed on other activities The project did not facilitate the production of Memoranda of

Specific Activities	Target at the end of the project	Status at the time of terminal evaluation	Quality of output and comments
			Understanding and other agreements leading to the preparation of a regional plan of action. This component of the activity is rated 'unsatisfactory'
1.1.4 Assess level of information and technological exchange to enhance regional cooperation and an interactive communication system among the three countries.	Documentation of joint programmes of exchange of information and technology on disasters;	**Complete**	Satisfactory. However, the section of the sub-regional baseline study covering this activity provides limited information, mainly focusing on national flows of information for Botswana, Mozambique, and Zimbabwe. The report provides information on inter-country sharing of information between South Africa and Mozambique as it was before this project was implemented.
1.1.5 Organisation of annual regional workshops rotated among the three countries to review and adopt new resolutions at institutional level concerning flood disaster related issues in the Lower Limpopo Basin.	By the end of each year a regional workshop is held in one of the three countries and progress reports, recommendations and new resolutions are produced and documented;	**Complete**	Satisfactory. Three workshops were held in Mozambique, South Africa and Zimbabwe. The workshop proceedings have relevant information on project implementation and progress of implementation
1.1.6 Prepare a regional action plan for sustainable land use planning and management of floods.	Regional action plan for participatory land use planning for sustainable land management and response to floods prepared and agreed.	**Complete** (in draft form at time of evaluation, pending revision based on comments from basin countries)	Moderately satisfactory The LBAP was prepared and presented to SADC. The LBAP was based on all the studies, reports, trainings, tools and activities produced during the project, and worked as a sort of synthetic document oriented towards the establishment of a basin management strategy. Comments to document were not received by the time of the review. The LBAP is a broad-based document that provides a good starting point for discussion. However, it still needs to be tightened before it can be considered for

Specific Activities	Target at the end of the project	Status at the time of terminal evaluation	Quality of output and comments
			implementation.
Specific Activities for 1.2.			
1.2.1. Carry out studies and formulate recommendations on the effective application of the Protocol on Shared Watercourses and other regional regulatory instruments in the Lower Limpopo Basin.	In-depth analysis of the mechanisms linking the Protocol and other regional instruments with the existing institutional structures dealing with flood management and sustainable land use planning made	**Complete**	Moderately unsatisfactory Recommendations are general; it is not clear how implementing these would improve the situation regarding land use planning for sustainable land management
1.2.2. Review available legal, policy and institutional framework concerning flood disaster management and sustainable land use planning at the national and community levels.	Country reports on the current national legislation and institutional framework concerning flood management and participatory land use planning for sustainable land management, including recommendations for improvements produced;	**Complete**	Moderately satisfactory The review and recommendations are weak. For example implementing the recommendation for "floodplain zoning to be integrated into physical development plans in Botswana" is unlikely to result in any significant change. As one official said "the people build their homes wherever they wish including in the flood plains as this is within their rights to do so". Some recommendations are vague and lack of necessary details in their statement. One of the recommendations in the Zimbabwe report, for example is that "The Civil Protection Department should

Specific Activities	Target at the end of the project	Status at the time of terminal evaluation	Quality of output and comments
			play its leadership role firmly".
1.2.3. Recommend land use planning policy changes and related frameworks.	New policies and plans to reinforce institutional roles in flood mitigation and land use planning strategies are proposed and submitted to the respective governments for approval.	**Complete**	Moderately satisfactory The list of recommendations for policy changes in section 2.2 of the Legal and Policy Recommendations report provides a general 'wish list' of what should be done. A presentation was made to the government stakeholders during the sub-regional workshop held from 4 - 5 December 2006. No specific comments were made in this forum. More concrete policy recommendations could have been made.
Specific Activities for 2.1.			
2.1.1. Studies on the current flow of early warning and other flood management information among the three countries and assessment of the existing organisation and structures ensuring the flow of such information from the national/institutional level to the local/community level	Reports on current flow of early warning, and on assessment of the existing organisation and structures prepared;	**Complete**	Satisfactory: Reports of current flow of early warning and flood management information are given in the national baseline reports and the sub-regional baseline study and in the reports entitled "Improving Inter-Country Flood Forecasting and Early Warning in the Limpopo Basin" In Mozambique the flow of early warning information was said to have improved during the Zambezi floods in 2007.
2.1.2. Use remote sensing and GIS technology to generate flood risk maps, sustainable land use maps, run dynamic simulations and create appropriate databases	Use of remote sensing and GIS technology and knowledge in governmental institutions participating in the project increased; maps on sustainable land use and flood risk, coupled with dynamic modelling, generated	**Complete**	Satisfactory: GIS and remote sensing successfully used; several maps were produced. The project produced more than 20 gigabytes of spatial data (on DVD's

Specific Activities	Target at the end of the project	Status at the time of terminal evaluation	Quality of output and comments
			provided to the reviewer) for the basin. UN-HABITAT has this data. Flood risk maps based on dynamic flood risk modelling were produced for the two sites in Zimbabwe. Flood prone areas were also indicated on maps for the other countries. There are no indications that use of GIS is continuing in some government institutions that participated in the project.
2.1.3. Train technical staff to enhance local capacity in operating flood forecasting, monitoring and early warning systems in most vulnerable areas, coupled with adequate transfer of related technology	Training material concerning flood forecasting, monitoring and early warning produced, and at least 20 technical staff per country trained; Technical capacity in flood forecasting, monitoring and early warning systems in Mozambique and Zimbabwe improved;	**Complete**	Moderately satisfactory: Week long training workshop was held in South Africa in September 2006. The workshop replaced the national workshops in the original implementation plan. The workshop was attended by 23 professionals (including disaster management, meteorology, hydrology, water resources). The distribution of participants by country and discipline is in the table in paragraph 51. Impact could have been improved by implementation of national level training at little additional cost. However, it seems this was impossible due to budget limitation. Due to budget limitations, a limited number of people were trained; impact of the training on capacity in the basin is limited. However, it must be noted that the course was a good demonstration of what the countries can do in terms of training. The activity can be replicated with financing from the basin countries.

Specific Activities	Target at the end of the project	Status at the time of terminal evaluation	Quality of output and comments
2.1.4. Develop project proposals for upgrading information and hardware for regional flood forecasting and early warning systems	Fundable project proposals formulated and approved.	**Complete**	Satisfactory: Recommendations were made. An official of the Zimbabwe national water Authority (ZINWA) indicated that the process was well received within ZINWA, it highlighted the gaps. ZINWA is considering implementing recommendations if funding is available.
Specific Activities for 2.2.			
2.2.1. Review existing studies on globally significant biodiversity in the lower Limpopo River Basin, such as land use and land cover mapping and inventories of natural ecosystems affected by floods, including the description of threatened species	Reports on ecosystems threatened by floods and flood-induced resettlements prepared; digital risk maps linked with exhaustive databases for the lower Limpopo River Basin produced.	Complete.	Moderately satisfactory: Maps produced are very coarse and do not yield more information than was already available before the project was implemented. The communities studied cover small areas; as such maps need to be of high enough resolution to be of use for these localized areas.
2.2.2. Perform assessments of institutional and community capacity for sustainable use and management of susceptible bio-diverse environments, and implement activities aimed at improving such capacity	Review of institutional capacities prepared and used to improve capacity of communities and institutions.	Complete	Satisfactory: Capacity assessments carried out Implementation of capacity enhancing activities such as community training workshops was done.
2.2.3. Develop sustainable land use planning tools		Complete	Satisfactory Maps to identify flood hazard areas for floods of different return periods produced for the two sites in Zimbabwe. Step by step flood preparedness manual produced and disseminated in South Africa. Guidelines for participatory development planning produced in English and Portuguese

Specific Activities	Target at the end of the project	Status at the time of terminal evaluation	Quality of output and comments
			As per project document, six communities were targeted for the use of the tools above; these were increased to 9 with the inclusion of Botswana in the project and an additional site in Mozambique.
2.2.4. Select project sites for the implementation of land use planning tools at community level	Two project sites selected in each country for the implementation of land use planning tools	Complete	Satisfactory: Nine sites for local level interventions were identified (together with national stakeholders) and land use planning tools were implemented at seven of these sites. The identified interventions were implemented satisfactorily.
2.2.5. Define ecosystem conservation approaches to be implemented by flood-affected populations, including recommendations for rural settlements policies	Well packaged ecosystem management guidelines disseminated in appropriate languages and formats	Complete	Unsatisfactory: The reports provided by UN-HABITATAT did not have specific “ecosystem management guidelines” produced by the project. The project document and reports do not define what is meant by ecosystem conservation approach. Ecosystem approaches are usually specific defined frameworks applied to analysis. Section 2.3 of the Legal and Policy Framework report does not outline ecosystem conservation approaches to be implemented by flood-affected communities.
2.2.6. Disseminate ecosystem management guidelines in appropriate languages	Strategic actions to mitigate flood impacts in at least two rural settlements in each country that are under serious threat of floods proposed and implemented	Complete	Satisfactory Guidelines were produced and disseminated to communities. River basin poster, River basin game, and manuals were disseminated in the four riparian countries through the focal governmental institutions collaborating

Specific Activities	Target at the end of the project	Status at the time of terminal evaluation	Quality of output and comments
			in the project. Additional educative materials were prepared and disseminated in local languages at locally organised events with the objective of raising local awareness on flood preparedness and disaster mitigation.[14]
2.2.7. Facilitate adoption of land use planning strategies and tools at both national and local levels aimed at mitigating the impact of floods on significant ecosystems	Meetings convened both at national and local levels to discuss strategies and programmes; dynamic land use models or scenarios feeding an adequate decision support system that shows future impact on identified ecosystems produced; monitoring operations implemented.	Complete	Satisfactory. Participatory land use planning was done through workshops and participatory land use planning
Specific Activities for 2.3.			
2.3.1. Propose and adopt consensus-based contingency action plans and facilitate their implementation through existing community organizations	Special committees at the community level to implement the contingency action plans formed;	Complete	The formulation of contingency plans is rated as satisfactory. It was ambitious of the project to expect to implement the plans through this project, so this aspect was not rated. Contingency action plans were formulated by communities and are for implementation at community level. However, there appears to be no plan for continuous update and practice drills of these plans. There is a risk that this knowledge will be forgotten as communities members move out of the community. There is also no mechanism for sharing this knowledge with possible new entrants to the community.

[14] For example, school drama groups did performances in local language to disseminate in Zimbabwe. Also, a video was produced in Zimbabwe but could not be screened in the two communities as the project funds were exhausted. A cartoon was produced in video format, but was not screened in any of the implementation sites due to funding limitations. However, the cartoon was screened in few sites of the lower Zambezi river valley in 2007 and 2008 and passed on to national TV in Mozambique in 2008.

Specific Activities	Target at the end of the project	Status at the time of terminal evaluation	Quality of output and comments
2.3.2. Selection and training of local administration staff and elected community leaders to promote awareness and ensure efficient public participation in adopting flood preparedness techniques and sustainable land use planning	Number of trained local administration staff and trained elected community leaders is consistently increased in each country;	Complete	Satisfactory Although there are indications of poor participation by segments of some communities, implementation of activity was satisfactory.
2.3.3. Organisation of annual workshops and training sessions, both nationally and locally, aimed at reinforcing decision-making capabilities to produce appropriate emergency flood responses	One annual workshop at national level and 20 technical staff for each country basin trained in disaster preparedness techniques;	Complete	Moderately satisfactory Two training workshops were held regionally, with 23 participants from the basin countries. The first was aimed at identifying training needs, and the second for actual training. While this is far from the target set at the beginning, it is considered satisfactory from a budgetary point of view – the project was far too ambitious; the resources did not match the activities to be implemented. Community workshops for early warning and contingency planning were held.
2.3.4. Disseminate informative materials for flood awareness in local languages and in easily understandable formats	Posters, fact-sheets and newsletters produced in local languages and disseminated; school-teachers to disseminate information through pupils to families trained; instructive coloured magazines for pupils produced; community radio programmes given in local language; theatre events and photo expositions held;	Complete	Satisfactory in Mozambique. River basin game and didactic poster were disseminated in Mozambique, South Africa, and Botswana. Dissemination was moderately unsatisfactory in upstream countries. Awareness campaigns were done through school drama activities in Zimbabwe. Good dissemination of river game and didactic poster in Portuguese in Mozambique. The game and poster distributed in the other countries were in English. In Botswana five copies of the river basin game and 2 posters were distributed; however at the time of the

Specific Activities	Target at the end of the project	Status at the time of terminal evaluation	Quality of output and comments
			evaluation some materials were said to be still at the DWA office (the DWA contact person said there were no project funds left for disseminating these). The evaluator could not ascertain of there had been further dissemination of these materials beyond the seven items referred above. The river game and didactic poster was disseminated in some schools in South Africa by the NDMC. The number could not be ascertained. The extent of dissemination of the didactic poster and river basin game in Zimbabwe was poor. It was indicated by the EMA official at Beitbridge that the river game and didactic poster were only available to the Zimbabwe team in electronic format. There were no funds available to this team for printing and disseminating to schools and or communities.
2.3.5. Identify flood-safe areas through participatory land use planning in both urban and rural environments.	Flood-safe areas identified and vulnerability reduction solutions implemented in at least two rural/urban settlements per country basin.	Complete	Satisfactory. High quality output was delivered by the Zimbabwe consultant team. Safe havens were identified at all nine sites; however, a more elaborate methodology identifying flood safe area for different return period storms was applied in Zimbabwe. This spatial analysis methodology applied in Zimbabwe (identification of flood hazard areas and delineation of flood safe areas for different return period floods) was not used in the other three countries. It would have been useful if similar methodologies for flood risk

Specific Activities	Target at the end of the project	Status at the time of terminal evaluation	Quality of output and comments
			mapping been applied in all sites

The Limpopo Basin Strategic Plan

78. The first outcome that the project aimed to achieve was a regional integrated land use management plan to lessen land degradation and minimise the risk of losing life and damage to ecosystems in future floods. The activity regarding the preparation of a regional action plan for sustainable land use planning and management of floods was modified to become the LBAP for reducing vulnerability to Floods and droughts. The target institution for implementing the strategic plan was LIMCOM[15].

79. The LBAP was developed by a regional consultant from Zimbabwe, with input from an international Human Settlements consultant from Chile and the project coordinator. A preliminary draft of the strategic plan was shared with all basin countries and LIMCOM by the time of the final project review workshop that was held in December 2006[16]. At the time of the interview with the project coordinator in May 2008 no feedback to the strategic plan had been received from the countries. However, it is important to note that LIMCOM acknowledged the "UN Habitat supported project on land use planning, flood warning and flood mitigation" as one of the projects underway in the basin (see http://www.pmg.org.za/docs/2006/061115agreement.htm). The minutes of the LIMCOM meeting held in Gaborone on 20 June 2008 also refer to this project and possible implementation of project recommendations that are seen to be in line with initiatives of the Limpopo Basin commission. With this background, it is assumed that lack of feedback from LIMCOM can therefore not be taken to indicate total lack of interest in the project.

80. The draft strategic plan was very much influenced by the SADC Water Policy (2006). It also raises a number of issues, including the water management activities that LIMCOM is implementing through its Limpopo basin study. The LBAP also addresses a mixed bag of issues (disaster management, cooperation framework, and communication at various levels (between countries and within

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[15] LIMCOM is the Limpopo Basin Commission. Its objectives are to

- Advise the Parties and provide recommendations on the uses of the Waters of the Limpopo river;
- Manage aspects related to the efficient and effective collection, processing and dissemination of data and information with regard to the Limpopo;
- Develop water infrastructure and the major investment in infrastructure programmes such as dams;
- Promote regional co-operation and strengthen relationships amongst the four countries;
- Act as an instrument to facilitate the sharing of benefits amongst the four countries;
- Institutionalization of cooperation in the integrated management of shared watercourses; and
- Promote stakeholder participation in decision-making within the basin.

The anticipated benefits of the LIMCOM are:

- The Joint Limpopo Basin Study, a water resource assessment study of the whole basin.
- Provision of advise to Parties on Integrated Water Resources Management (IWRM)
- Interfacing with other bilateral structures dealing with the basin like the Joint Permanent Technical Committee (JPTC) between South Africa and Botswana.
- An instrument of leveraging Official Development Assistance (ODA) into the Limpopo Basin (http://www.pmg.org.za/docs/2006/061115agreement.htm)

[16] The Project Coordinator indicated during the review process that in July 2007 a second and more consistent draft was circulated for comments to all stakeholders involved in the project implementation in the four riparian countries. These comments were not available to the evaluator and as such the evaluator cannot provide substantive comment to this.

individual countries, disaster management protocol, improving coordination among disaster management agencies)), making it seem more like a "wish list" rather than a focussed proposal of action for implementation. The LBAP tries to integrate water management with land use planning and mainstreaming of disaster management as a cross cutting issue. This is an innovative approach, but because of its broad nature and also the strict mandate of LIMCOM, the LBAP may be considered to broad. The LBAP as proposed has two major components with objectives and outputs as outlined in Table 6. The LBAP activities are targeted at three levels: local, national, and basin. Details of the activities are in the Limpopo Strategic Plan document dated July 2007 (Limpopo Basin Strategic Plan for reducing vulnerability to floods and droughts: Draft for discussion with riparian governments).

81. Some of the activities particularly under the first pillar of improving disaster management (for example Activity B.a.2 on "streamlining institutions dealing with disaster management among the different riparian countries for improving inter-country coordination and flow of information) imply expanding LIMCOM's terms of reference, and also go beyond the current capacity of LIMCOM. Also, local level water management issues under the second component fall under national water management bodies. It is premature to encourage LIMCOM to implement the LBAP in its current form. The LBAP needs to be focused on a few key issues and discussed with key persons from the basin countries.

Table 6. Outline the Limpopo Strategic Plan (LBAP) as proposed by the project team

Pillar	Objective	Outputs
1. To reduce vulnerability through Improved Disaster Management	- To enhance the capacities of the Limpopo basin riparian countries to coordinate and agree on implementation measures and become better prepared to face floods and droughts, thus reducing vulnerability of riparian communities	- Policies, agreements and MoUs prepared and approved to consolidate and enforce understandings and modalities of implementation among the riparian countries and between different local administrations. - Institutions reinforced and mainstreamed, clarifying tasks and responsibilities. - Means, tools and equipment provided for better delivery regarding vulnerability reduction. - Human resources and communities' capacities enhanced.
2. To reduce vulnerability through Integrated Land Use and Water Management Planning	- To ensure that effective mechanisms and agreements are in place to integrate water management with land use planning in the Limpopo basin and, to produce local, national and basin land use and water management plans	- Technical committee at the Limpopo basin level expanded with land use planning representatives. - Integrated land use and water management planning framework prepared and agreed among riparian countries. - Communities, local authorities and line ministries trained to produce land use and water management plans. - Integrated village land use and water management plans produced. - Integrated local/national land use and water

		management plans produced. - Flood and drought vulnerable communities identified. - Integrated local/national land use and water management plan included in the national plan of action for vulnerability reduction. - Integrated basin land use and water management plan produced.

82. It is important to note here that the strategic plan was prepared by a consultant, and lacks significant input from the basin countries, particularly the potential implementers of the LBAP at national level[17]. Officials from the basin countries identified weaknesses and challenges during interviews with the evaluator. There is the general view particularly among the officials from the departments of water that LIMCOM is narrowly focussed on water resource planning and management; intersectoral coordination is necessary for successful implementation of the strategic plan. A DWAF official in South Africa voiced the same concern, adding that LIMCOM's terms of reference are specific and its mandate is focused on planning and managing the water resources of the basin. Disasters and floods are currently seen as outside this mandate.

83. In the July final sub-regional meeting an official of the SADC WSCU commented on the LBAP, voicing the concern that broadening the mandate of LIMCOM to include Disaster Management (DM) would over-extend LIMCOM[18] (LIMCOM's mandate is confined to trans-Boundary water resource management. LIMCOM is more concerned with the development of water resources). Given the comments made at the final sub-regional meeting in Pretoria and the challenges associated with expanding LIMCOM's mandate in order for it to implement the LBAP , it is not clear why there were no additional efforts by the project team to include other relevant institutions (for example disaster management departments in the relevant countries).

84. It is important that in moving forward UNHABITAT and its implementing government partners consider the comments made by delegates during the presentation of the LBAP in December 2006. These are:

- The broad nature of the action plan. One delegate urged the project team to and keep the plan simple and focused
- …the broad nature of the action plan makes the strategy look more like a wish list; it needs to be more focussed.
- …better definition of key role players is required

[17] An experienced Mozambican water resources professional (from University Eduardo Mondlane) indicated that the project did not consult enough experienced professionals (in Mozambique). He also indicated that the budget that was available to the project was a limiting factor; it could not allow the project team to work with experienced water professionals in that country.
[18] See the sub-regional workshop proceedings document

85. While the spirit of cooperation was clearly evident during the entire implementation of the project and is embodied in the existing basin institutions (LIMCOM and LBPTC), it seems that the basin action plan was viewed as ambitious and possibly as a threat by some of the participating government partners. There is even agreement among the stakeholders that land use planning is relevant for the basin, but it appears that what would be the best possible intervention (according to the delegations commenting on the strategic plan at the final project meeting in 2006) would be national level implementation of priority activities.

86. At the time of the evaluation it was not clear if the lack of feedback from the member countries was an indication of no interest or it was due to the fact that government officials' time is usually taken up by their official assignments leaving no room for additional regional commitments outside of their mandate. An attempt to get an opinion on this from the SADC WSCU during the evaluation was not successful. The SADC delegate, who was present at the presentation of the draft strategic plan at the project meeting held in Pretoria in December 2006, said he did not have adequate knowledge of the project to make comments on the project and LBAP.

87. A regional plan of action that was one of the expected outputs at the end of the project was drafted but was not implemented. This is regarded as a major shortfall of the project execution. It is, however, commendable that UN-HABITAT is still working with LIMCOM to encourage adoption of the LBAP[19].

88. It must be pointed out that integrating land and water management is key to managing floods in the basin; this approach was indeed innovative and should be noted as such. More should be done to promote the findings to all relevant stakeholders, and not only to LIMCOM that has a limited view and mandate of water management. Bringing all the departments together to implement the LBAP or parts of it would be a major achievement in itself as a step towards managing land and water resources to minimize the impacts of floods in the basin.

Land use planning and implementation of local level interventions

89. Within the framework of the project, participatory land use and contingency plans were prepared at community level in the riparian countries. The main criterion for selecting sites for implementation of participatory land use and contingency planning was vulnerability to floods. The communities selected were affected during the floods in 2000. The communities where interventions are:

    - In Botswana: Shoshong, Central District, and Taung (Ramotswa), South East District.
    - In Mozambique: Chilaulene, Maniquenique and Mabalane villages, in Gaza Province.

[19] As indicated by the project manager, UN-HABITAT still plans to participate in LIMCOM meetings with the aim of encouraging LIMCOM to take up recommendations of the project. UN-HABITAT planned to attend the LIMCOM meeting at the end of 2007. Unfortunately the quorum for the meting was not reached. It is noted here that UN-HABITAT had intentions of attending the planned LIMCOM meeting during the third quarter of 2008 in Pretoria.

- In South Africa: Ga-Mampa (Mafefe) and Mhinga villages, in Limpopo Province.
- In Zimbabwe: Chikwarakwara and Shashe villages, in Matabeleland South Province.

At each site priority interventions were identified together with the targeted populations and the local authorities, and were implemented using existing project funds. Therefore priority interventions were a result of the participatory land use planning process at local level. The exercise actively involved communities and local authorities. The priority interventions represented sustainable solutions for reducing vulnerability to floods and their correlated impacts, such as drought in some cases.

90. Use of project funds, however limited, in implementation of interventions was meant to positively stimulate local participation, allowing the identification of locally adapted solutions that are more sustainable to manage. Some of these interventions were intended to serve as models for replication in other flood-prone areas in the sub-region. Implementing priority interventions at selected sites was therefore meant to serve as a catalyser for land use planning in the communities as well as elsewhere in the river basin. Some interventions, as will be explained in later paragraphs, while suitable for poverty stricken communities, were not in line with project objectives.

91. In Mozambique the following local interventions were implemented:

- At Chilaulene, Xai Xai District: construction of a dual purpose building at the highest point in the village. The building was designed to serve as a community agricultural centre during normal periods and as a safe haven for the community during floods.
- At Maniquenique, Chibuto District: construction of an elevated primary school classroom block.
    - The elevated foundation is 1.5 m high, half a meter above the level of the flood in 2000.
    - Similar to the community agricultural centre at Chilaulene, the classroom block at Maniquenique was also designed as a dual purpose building, serving as a classroom during normal periods and as a safe haven during floods.
- At Mabalane, Mabalane District: rehabilitation of the community irrigation scheme that was destroyed during the floods of 2000. The irrigation scheme is in the flood plain and was completely inundated during the 2000 floods.

92. In Mozambique prior to the project the standard approach to dealing with floods only focused on evacuation methodologies of the communities from flood prone areas where they were settled. Evacuation from these areas takes communities away from fertile lands and water sources during normal years without floods. As a result of the project and related UN-HABITAT work in Mozambique (Living with Floods), and having realized from the work implemented by UN-HABITAT, the government has realized that communities can adapt and implement the necessary interventions that enable living with floods. The

interventions in at Maniquenique and Chilaulene demonstrate the living with floods concept.

93. In Mozambique the Chilaulene and Maniquenique communities were visited during the evaluation. At Chilaulene the head of the community was not available; it was not possible to discuss the use of the agricultural centre with anyone. The agricultural centre and its water harvesting tank are shown in Figures 1 and 2 in Annex VI. Figure 3 in the same annex shows the elevated location of the agricultural centre on the highest point in the village on the dune[20]. The centre is well positioned to serve as a safe haven for the community during floods. The top of the dune was the only zone of the village that was not flooded during the 2000 floods.

94. The school block at Maniquenique is shown in Figures 4 to 7 in Annex VI. Similar to the agricultural centre at Chilaulene, the school building was designed as dual purpose building: a classroom block during normal periods and a safe haven during flooding. The water harvesting tank was meant to provide clean water during floods when regular water sources are likely to be contaminated.

95. Clean water supply to communities after floods is a priority. The water tank attached to the classroom block has a capacity of 30,000 litres. The population of the Maniquenique community is 2,315 persons[21]. Assuming the 25 litres per capita per day used for basic water supply (used elsewhere in designing rural water supplies in Southern Africa), the community will have clean water for only half a day after a flood event. While the intervention is relevant, unless replication of such structures takes place in such a way that there will be several buildings similar to the classroom block, the water tank does little to solve the problem of clean water provision in a flooding situation.

96. The roof of the school block was also designed to be used as temporary elevated shelter while waiting for evacuation[22]. It was reinforced to accommodate the additional weight. While it is not clear from the designs how many people can safely be on the roof at the same time, at total surface area not exceeding. From the building dimensions the total surface area of the roof is about 160m^2.[23] From the area alone, it cannot accommodate more than 1,000 people at the same time.

97. The government had pledged to furnish the new school block at Maniquenique as part of co-financing. By way of comment, which is in no way judgemental of the project team, at the time of the evaluation, eight months after completion of construction activities, this contribution was yet to be realized. Use of the classroom block will start after the furniture has been provided and the education minister officially opens the school. In the meantime the temporary classroom type used since destruction of the school during the floods of 2000 is in use (Figure 8, Annex VI). The delay in furnishing the two classrooms leads one to question ownership of the project by all stakeholders.

[20] This point is estimated to be at least 10 m above the river level in this area.
[21] Population information obtained from the Chibuto District Administrator (source: 2007 Census data)
[22] During the flood in 2000 people used the roof top as temporary safe haven while waiting to be rescued.
[23] Estimated from dimensions in Figure 8, Implementation of Priority Interventions at Community Level report (page 8).

98. A third classroom was constructed by the community using locally available building materials but following the same principle of building on raised foundation to make the building 'flood-safe'. The classroom is shown in Figure 8 in Annex VI. This classroom was in use at the time of evaluation.

99. At Mabalane, the third site in Mozambique, the intervention implemented was rehabilitation of the irrigation scheme that was damaged during the 2000 floods. The intervention involved purchasing a new pump and pipes as well as putting in place a new retention dam. While the importance of the intervention to the community is apparent, the intervention type, being more a rural development type intervention, is not congruent with the objectives of the project[24]. Further, the project team was not equipped to provide the necessary capacity building that would be required by the community to operate and maintain the irrigation infrastructure.[25]

100. As in Mozambique the implementation of priority interventions in South Africa resulted from the participatory planning sessions undertaken with the communities of Ga-Mampa (also known as Mafefe), Capricorn District, and Mhinga, Vhembe District, both located within the Limpopo Province. An NGO, Homeless And Poor Peoples Initiative (HAPPI), was selected to implement the following tasks at each of the two sites

- deliver on-site training to interested persons of both targeted communities in house construction using reinforced 'adobe' mud-brick technology;
- oversee the construction of on-site demonstration unit/s including arrangements for the purchase and transportation of materials.

101. The HAPPI team worked with communities in a participatory manner to select sites for the buildings, determine the size of the buildings that could be built from the funding that was available, and distribute the tasks to be carried out among community members. The HAPPI team also showed the communities how to put up the proposed structures (including how to mould bricks, recommended foundation sizes, and how to lay the foundation).

102. While the intervention was successfully implemented at Mhinga, there were problems faced at GaMampa and the completion of the building could not be realized. The project team and NGO attributed the problems at GaMampa to poor local leadership. In planning these interventions, the project team failed to take into account differences between communities. It was assumed, wrongly, that the same process would work equally successfully in different locations with different communities. Each community is unique, and what works with

[24] The overall objective of the project is to develop and implement participatory land use tools and plans for sustainable land management in the Lower Limpopo River Basin in order to reduce the impact of floods on land, ecosystems and human settlements.

[25] The project team did provide some training to the Mabalane community on managing the irrigation scheme as outlined in the report on Capacity Building at the Local Level - Summary of Activities in the Four Riparian Countries. Training communities in managing a communal irrigation scheme usually requires more than once off training. The challenges associated with the management of such small scale communal irrigation are many. Also, irrigation management transfer, commonly referred to as IMT, is much more complex than the elements covered by the training provided. Generally successful IMT is not accomplished with once-off training.

one community might not necessarily work with another. At the point it became apparent that there would be serious problems at GaMampa the project team should have taken a more active role to guide the process rather than leave the entire process to the consultant team.

103. The total budget allocated for interventions in South Africa was about $18,000, less than the total cost of the intervention at one community in Mozambique. While the budget amount was agreed among the countries, it should have been evident that it would be difficult to implement meaningful interventions at two communities. Implementing activities in communities with inadequate budget presents challenges particularly when it is not clear how each community member benefits. Given that the interventions budget was limiting in South Africa, it would have been more efficient to implement one successful intervention in one community rather than try to spread the budget between two sites.

104. As in Mozambique and South Africa, priority interventions in Zimbabwe resulted from participatory planning processes and identification of priority interventions with the communities of Chikwarakwara and Shashe. The following interventions were implemented:

- At Chikwarakwara village: rehabilitation of the small-scale irrigation scheme to reduce vulnerability of the community to drought. The floods in 2000 destroyed the community irrigation scheme.
- At Shashe village: provide building materials to construct a new primary school block in an elevated area which is out of reach by flood waters. The building was designed as dual purpose structure, to serve as a school in normal times and as a safe haven when there is a flood.

105. The Chikwarakwara community was visited during the evaluation. The community's priority concern was the destruction of irrigation infrastructure by floods. The intervention of choice at that site was therefore rehabilitation of the irrigation scheme. As contribution to the rehabilitation, a new pump was purchased and installed (Figures 10 and 11 in Annex VI) and two pumps were repaired. The pump station is located just above the river bed elevation. The pump is movable, and can therefore be moved to a dry area when there is a flood warning.

106. The new pump needed to be 'housed' to so that it would be protected from floods. The project team had agreed with the community that a structure would be built around the engine to protect. At the time of the evaluation the unit had not been protected; it is unlikely that the community will build this housing. But the community indicated that the pump can be removed and taken to a shelter in case of a flood.

107. In addition, the community also needed a fence to protect the irrigation scheme from elephants that destroyed the crops. This intervention could not be realized with the available project funds. The local project team was tasked to approach ZINWA for a technical inspection and consequent reporting on the non functional pumps. The Environmental Management Agency (EMA), focal Governmental point for this initiative, was tasked to approach the Department of

Parks and Wildlife to address the problem of elephants in the area. The EMA and the project team were also requested to explore possibilities of funding the remaining critical components of the project like fencing and repairing the two other pumps, as well as to conduct feedback meetings on the research results on floods and risk maps produced during the participatory planning exercises. None of these extra activities have been carried out due to lack of funds and the general socio-economic climate that is prevailing in the country.

108. As mentioned for Mabalane in paragraph 99, it seems that this kind of intervention at Chikwarakwara, being a food security and rural development type project and while relevant for the community, was not in line with the project objectives, which were to develop and implement participatory land use tools and plans for sustainable land management in the Lower Limpopo River Basin in order to reduce the impact of floods on land, ecosystems and human settlements. With these objectives, the decision to utilize resources to implement a food security type intervention was an oversight on the part of UN-HABITAT. Perhaps providing the community with a bell or building a flood shelter for the two lower villages would have been possible alternatives in line with the project objectives[26].

109. At Shashe the building materials (cement bags, wooden trusses, corrugated iron sheets, and nails) were purchased for reconstructing the primary school. The school is expected to accommodate about 300 pupils when complete. These pupils are being accommodated at a nearby school.

110. By the end of the project, building of the Shashe School had not yet commenced. The project attributes this to poor local (community) leadership in involving community members in the brick preparation and school building, as their promised in-kind contribution. This was despite threats of repossessing building materials by the project (team), which were at some point stored in the local administration office. Given the distance (700km) between the site and the project coordinator's office in Harare, it is likely that the national project coordinator did not have frequent communication with the communication and did not always have up to date information of activities at the community.

111. At the time of the evaluation construction of the school at Shashe was still incomplete. There had been problems regarding input by the community and construction of the school had had not proceeded as planned. From discussions with the District Administrator (DA) it was established that the Rural District Council (RDC), the local authority that works closely with schools in the district had not been directly involved[27]. The project had been undertaken directly with the local community. Involving the RDC from the beginning would have solved

[26] In a meeting with the evaluator the community had said made a request for a bell from the project. The bell would be sounded to warn community members in the case of a flood (refer to paragraph ☐145 for the detail). The community also indicated that there are two other villages in the downstream area whose houses are were affected by the 2000 floods as the villages lie much lower. For these two villages, a safe haven was still needed (see paragraph ☐143).

[27] Rural schools in Zimbabwe fall under the jurisdiction of RDCs. In each district, the RDC is responsible for public infrastructure such as schools, clinics, roads, etc.

the problems encountered at Shashe. The DA was hopeful that now that the RDC was involved, the building of the school would proceed at a faster pace.

112. As the project funds were fully utilized before completion of the Shashe School, the community took the responsibility for completion of tasks including sourcing the required financial resources. The completion process is slow. Given the socio-economic situation prevailing in the country completion of the school is unlikely.

113. Most of the rural schools in Zimbabwe are under the jurisdiction of RDCs. It was not clear how the RDC, an important local stakeholder, had been left out of the process of planning and building a school, infrastructure that would eventually be considered part of public infrastructure in the district. The project team failed to assess stakeholders adequately by means of a stakeholder analysis.

114. The problems experienced at the Shashe site can be partly attributed to accessibility of the site to the project team. The national project coordinator was based in Harare, about at least 700 km from the site. It would have been easier for the national project coordinator to follow up site activities if the project office was closer to the site. An alternative would have been effective collaboration with the local government offices (the RDC and DA's offices) that have a strong presence at district level.

Capacity Building

115. Enhancing capacity was a core component of the project. Considering the project objectives and activities, three levels of capacity building can be identified: local / community level, government officials (district, provincial, and national level), as well as policy makers.

116. Given the three levels of capacity that the project addressed, capacity building activities were assessed based on (i) identification of capacity gaps, (ii) budget spent on capacity building activities, (iii) the training required for each group, (iv) actual trainings per group, (v) number of people trained per group, (vi) possible long term impacts of capacity building activity, and (vii) avenues for replication.

117. The project had planned capacity building interventions at three levels: local / community, national, and basin wide (regional). Actual implementation of capacity building activities was done at local and at basin level. No national level capacity building activities were implemented; national level training was included in basin level training.

118. Given the size of the project, the capacity building activities as outlined in the project document were ambitious. The activities appear to have been scaled down during implementation to make them more achievable. With this background, the capacity building achievements need to be commended as the project team implemented effective capacity building at local or community level as well as district and national levels.

119. Basin level training was targeted at professionals from all the basin countries. A once off week long training course was held in South Africa in 2006. The training needs addressed by the course were identified through a workshop held in Pretoria three months prior to the technical training. Twenty four people including the regional project coordinator attended the course. The flood forecasting and early warning training workshop brought together professional from government departments involved in floods. These included 7 hydrologists, 1 modeller, 1 GIS / Remote Sensing Specialist, four instrumentation technicians, 1 water resources management expert, 1 data management expert, 4 meteorologists (forecasters and radar specialists), 1 statistician, 1 land use planning specialist, and 2 disaster management officers. This number was much less than indicated in the project document. Also, only one training session was implemented. This is hardly adequate to make an impact on capacity, particularly when the capacity of government agencies to effectively deal with disaster management continues to be threatened by exodus of qualified staff. To be more effective, training should target more professionals more frequently. This aspect of project implementation should have been addressed at project preparation. It is considered an oversight on the part of both the implementing and executing agencies.

120. The course was well received by participants; it brought all the relevant professionals[28] together and opened channels for improved information exchange not only among the professionals nationally but the countries as well. More importantly, it realized the establishment of the Flood Forecasting and Early Warning Task Force, made up of members from the basin countries. This task force is active and meets on a regular basis. It provides a channel for communication and information sharing among the basin countries.

121. The project utilized the training as an opportunity for countries to share expertise. South Africa that already runs flood forecasting and early warning systems in other river basins took the lead and also involved academic expertise from the University of Zimbabwe[29] in delivering the flood forecasting and early warning training in South Africa in 2006.

122. Capacity building is often regarded as an ongoing process, and when new ideas are presented, repeated trainings are preferred over once off courses. A number of course participants indicated that training should be continuous; governments should be urged to organize refresher courses for professionals.

123. National level training workshops, as in the original implementation plan, offer training opportunities for more people per country resulting in a larger capacity pool per country. This would partly address the issue of mobility of staff and skills shortage both now in the long term, ensuring sustainability of the project outcomes.

124. The use of remote sensing and GIS technology was demonstrated with the flood hazard mapping by the consultant team in Zimbabwe. This output demonstrated

[28] Professionals from disaster management, hydrology, meteorology, and land use planning departments.
[29] Dr. Murwira from the Department of Geography, University of Zimbabwe

the capability of GIS and remote sensing tools for increasing knowledge of the participating government institutions. In Zimbabwe there was no indication of ongoing use of GIS and remote sensing technology by the collaborating government department.

125. All the persons contacted during the evaluation cited low capacity at all levels as an issue. The problems include the following:

- Lack of necessary skills
- Few skilled officials at government levels, for example for flood modelling. In South Africa it was mentioned that DWAF's hydrological services unit has less than 50% of its posts filled.
- Mobility of the few trained staff - loss of staff to better paying opportunities was evident for Zimbabwe and South Africa.
- A direct result of staff shortages in the government departments is the limited time that officials have to engage in other activities including gaining new skills while on the job as their time is pent in their mandates.

126. The recommendation from the Flood Forecasting and Early Warning training course participants that "such a course should be offered annually, so that there is a multiplier effect on the number of competent people with regards to flood forecasting and early warning" is valid. With the benefit of hindsight, this (need for additional training for enhanced impact) should have been evident at project design and budget provision should have been made. Further, collaboration with regional initiatives such as the regional WaterNet (www.waternetonline.net) program would ensure long term implementation of such training and therefore continued capacity enhancement.[30] WaterNet is the largest single producer of water management professionals the SADC region and produces at least twenty Master of Science graduates in the field of IWRM per year since 2001. This project makes no reference to linkages with WaterNet. Direct collaboration with WaterNet would have provided an avenue for cost-effective training.

127. The second recommendation from participants was that "a broader long term training programme on flood forecasting and early warning for officials concerned with the management of the Limpopo River Basin be offered in association with competent University Departments within the Limpopo Basin Countries" with initial joint funding coming from the basin country governments and multilateral agencies such as the United Nations. Again, as suggested in paragraph 126, collaboration with WaterNet, such training can be offered as one of the WaterNet modules. This way, flood forecasting and early

[30] WaterNet is a regional capacity building program operational since 2000 offering joint educational programmes in water resources and professional training programme facilitates competency training to meet the needs of SADC, Country Water Partnerships, River Basin Organisations, Community Based Organisations, and various actors and practicing professionals in the water and related sectors. Professional training is done in close collaboration with the SADC Water Sector Coordination Unit, and Global Water partnership-Southern Africa. It's aim is to enhance capacity for integrated water resources management. It runs a regional modular MSc program with modules taught at University of Zimbabwe (Water Resource management), University of Malawi (Water and Environment), University of Dar es Salaam (Hydrology), Polytechnic of Namibia (Water for People), University of the Western Cape(water and Society), and University of Botswana (Water and Land).

warning raining is offered as part of the larger integrated water management training for water professionals.

128. Another interviewee said that universities should include practical training on early warning and flood forecasting in mainstream education. Further, additional training should be carried out at national and basin levels to increase the number of people with the relevant skills.

129. For the type of training such as the early warning and flood forecasting training that was implemented, the number of trainings offered per group directly has a direct relationship with the impact that can be expected from the training. New models and new datasets are continually being made available by academic institutions, research agencies, and other bodies. Such methods improve the quality of information that can be made available. Annual training sessions will continue to enhance skills of technical staff. This will also lead to a significant improvement of the quality of early warning and forecasting information available. While this was not possible in the context of this project, specific recommendations should be made to the basin countries through LIMCOM to implement capacity building activities regularly. To ensure ongoing capacity building and sustainability of the capacity building activities initiated, financing (of capacity building activities) should be should be provided through national budgets where possible or from external sources.

130. At local / community level capacity building activities included awareness campaigns and demonstration of the river basin game. Capacity building activities were also implemented as part of the participatory and contingency planning and intervention implementation processes. These processes directly enhanced the capacity of local stakeholders as well as of government partners working with communities.

131. In South Africa a comprehensive flood preparedness manual was compiled and delivered to the community in workshop sessions. This activity was carried out by a consultant without the involvement of government. The same manual was used in Botswana. The manuals have four specific components:

    - Mitigation and preparedness measures before a flood disaster occurs (including identification of potential dangers; familiarization with the causes of these dangers; raising awareness; searching for possible solutions; developing a disaster plan on what to do before, during and after the floods; determination of shelter areas and evacuation routes; setting up an adequate communication system (take note of emergency numbers); discussing the evacuation scenario; ensuring coordination between community leaders and local authorities; and storing food & water)

    - Contingency measures and evacuation modalities during the occurrence of a flood disaster;

    - Post-disaster recovery and reconstruction measures;

    - Practicing and maintenance of disaster plan.

132. At Mabalane in Mozambique capacity building activities implemented as part of the priority interventions process also included

- Organisation and management aspects of the associations, i.e. principles of common management, coordination mechanisms, and definition of responsibilities;
- Collective water management, including water distribution scheme, irrigation calendar, maintenance and improvement of the irrigation channels;
- Water management as such, i.e. irrigation modalities vs. efficient water use; type of crops vs. water irrigation needs; and elaboration of agricultural production plan;
- Equipment and stationary maintenance and management, such as repairing modalities, recommended functioning time of the water pump, stationary and operational costs, and co-financing mechanisms of the different associations.

In general, capacity building activities at Mabalane were designed to include operating the irrigation system and not flood preparedness and disaster mitigation only. The training needs for managing the irrigation scheme detailed above requires specialist training, and requires more than one-off training for the communities involved. Unless follow up through the relevant department has been planned, the sustainability of the intervention remains an area of concern.

133. At Maniquenique and Chilaulene in Mozambique and Mhinga and Mafefe in South Africa skills for building flood proof houses were imparted to the community during implementation of priority interventions. Such skills remain within communities.

134. In Zimbabwe local level training included dissemination of awareness materials in local languages, planning video filming and viewing, and coming up with strategies for information dissemination methodologies. Workshops for building awareness on flood reduction strategies and capacity for improved land use planning management through the dissemination of appropriate guidelines were held. Informative materials in local languages and the development of an educative and informative video on project activities for future usage were developed. Performances by school drama groups with the themes of sustainable land use management; and flood risks and water safety reinforced the concepts were used to further cement the concepts. The school headmaster at Chikwarakwara said that there was now an ongoing program with the CPD and the drama performances by the school children will be an ongoing exercise.

135. In Zimbabwe an awareness video was produced with the aim of showing it to the community. At the time of the evaluation the video had not been shown to the community due to shortage of funds.

136. Overall, the project demonstrated the possibilities for capacity building in sustainable land use planning and disaster preparedness at multiple levels. There exist avenues for replication of capacity building particularly at national and basin levels. Through LIMCOM governments should be urged to explore ways to implement capacity building and awareness campaigns based on the models

demonstrated by the project to not only ensure that the capacity building momentum gained through this project, however limited, is not lost but also for long term sustainability.

137. The capacity building materials and the channels for dissemination (particularly through school children) provided an effective way of enhancing awareness amongst the communities. Involving school children in drama activities and the river basin game was an effective way of building capacity in areas where some community members are illiterate for example in Mozambique and Zimbabwe cited in the project reports as having lower literacy rates.

138. It was clear from the flood forecasting and early warning training workshop report and from the interviews carried out that lack of capacity at multiple levels is an issue of concern in the basin countries.[31] With only a handful of trained professionals and exodus of skills from the countries, capacity is likely to remain the single largest threat to successful implementation of land use planning and early warning for mitigating impacts of floods. UN-HABITAT should make specific ongoing capacity development recommendation to the four countries, LIMCOM, and SADC WSCU**.** This can be done in the form of a policy brief, drawing from the capacity building reports available and making specific recommendations for immediate as well as long term implementation.

139. In addition to the capacity building and awareness raising activities in the preceding paragraphs, regional workshops were organized in each country on a rotational basis. These served as fora to review project progress. These workshops served the bigger objective of encouraging exchanges between government officials from the basin countries. Workshops were held in Mozambique, South Africa, and Zimbabwe only.

140. With reason, workshops where project progress was discussed were of a sub regional nature, with a few participants from each country. No feedback workshops were held nationally by those that attended sub regional workshops. As a result, the level of awareness of project activities by some provincial and district level people was low. In the Beitbridge district in Zimbabwe an EMA official indicated that the last meeting he had attended was in December 2005 (in Harare). According to him, there had been no feedback on the flood modelling and land use planning work by the local consultant. He insisted that EMA could not move forward on implementing land use plans with local communities in the absence of this report.

141. The Beitbridge provincial team in Zimbabwe was satisfied with awareness materials disseminated. This included pamphlets in local language and school drama activities in the communities. The team was also happy with the district level disaster committee. Community level structures for disaster warnings were formed. A major constraint in moving forward was lack of financial resources. The project had a limited budget to implement all activities. The project design

[31] 12 of the individuals interviewed mentioned capacity as a major challenge.

was ambitious, and the inclusion of Botswana as an afterthought, while key for the success of the project, may have exacerbated the budgetary problem[32].

142. Communication between the national project coordinator's office and stakeholders at district level (Beitbridge District EMA office, the RDC, and the Beitbridge DA's office among others) was cited as problematic by the Beitbridge provincial level team.

143. For the Chikwarakwara community flooding is a problem for their fields that are low lying close to the river level. The community associates flood risk with the fields as homesteads are located on fairly high ground. During the 2000 floods none of the homesteads were affected; only the irrigation scheme that lies much lower and closer to the river level was affected. A safe haven for use should a flood affect homesteads was identified and the community is aware of this area. There are two other villages in the downstream area that were affected. For these two, a safe haven was still needed.

144. The community at Chikwarakwara had high expectations from the project. They indicated that they had requested for a storage dam and engine. The dam would have supplied water to the irrigation scheme by gravity. The area for the dam had been pegged but did not materialize.

145. The community had a flood warning system already in place – just outside the community bridge water levels are monitored and warnings are given by the VIDCO chairperson. They had made a request for a bell from the project; this did not materialize.

General

146. The flood proof school at Maniquenique in Mozambique benefits the whole community. It is also a replicable case study as similar schools can be built in other communities on the Limpopo floodplain. The Chibuto DA, also in charge of the Maniquenique area, said that the school presented an excellent solution for communities located within the Limpopo floodplain. However, the administration would like to see the school stand the test of a flood similar to the 2000 flood before they can start building similar schools.

147. Games are increasingly used to disseminate important messages. Of all project outputs produced, the river basin game seems to have had the most impact. The game was remembered by most of the persons interviewed. The disaster management units in both Mozambique and South Africa are disseminated the game widely, using it as an awareness raising tool when working with communities.

148. MICOA technicians in the Gaza Provincial Office in Xai Xai (Mozambique) appreciate the river game as well as the educational poster. The provincial officials continue to use the poster in schools because they consider school

[32] Assuming that adequate consultations were done at the time of project preparation, the position of the all the riparian states and LIMCOM regarding the inclusion of Botswana should have been known to UN-HABITAT at the time of project writing. It would have been prudent for UN-HABITAT to inform the GEF that implementation of the project in only three of the four countries would pose implementation problems.

children as important vehicles of capacity building for communities. Schools have environmental clubs in which many children participate. At the time of the evaluation the poster had been disseminated to seven schools (8 de Marco, Koka Misava, and Praia de Xai Xai Primary Schools; Tavene Secondary School; 10 de Janeiro Primary and Secondary School; and Liga des Escuteiros Catholic School) in Xai Xai in 2008. In the southern districts of Xai Xai the game and poster were distributed at two schools per district. MICOA had made plans to take the river basin game and poster to other districts; but are now short of printed material.

149. The Chibuto District Administrative Offer said that teachers in the district had been trained by UN-HABITAT and MICOA to use the capacity building material from the project. This exercise was meant to facilitate dissemination to local communities.

150. While capacity building material (river basin game and poster) seem to have been distributed widely MICOA has no further plans within the scope of the project. It was noted that MICOA has many other priorities and there was a limited budgetary allocation for the project in 2008. To counter this problem the officials disseminate material when they are in the field for other projects. The officers emphasized that this budgetary issues applied to all government run projects and were not particular to this project.

151. Two thousand copies of the river basin game were printed and were distributed. Many copies of the game have been distributed by the INGC in Mozambique and the NDMC in South Africa. In Mozambique there has been demand for reprints. According to the project manager, UN-HABITAT is committed to making reprints and to continue disseminating the river basin game through other projects being implemented by UN-HABITAT.

152. The river basin game has not been distributed as widely in Zimbabwe and Botswana. In Zimbabwe it appeared that only the local project team was aware of the river basin game and the didactic poster. The officials from the EMA indicated that all the capacity building materials are available in electronic format. However, there were no funds from the project and from the government to cover the cost of printing the game and poster. The officials from EMA said that if the project provides funds, the river basin game and poster will be printed and disseminated widely. In Botswana, some posters are available for distribution. They are at the Department of Water Affairs. As in Zimbabwe, dissemination of the capacity building tools was hampered by lack of funds.

153. It is worthwhile noting that it was not possible to get a complete picture of the extent of dissemination of the river basin game and poster as a limited number of institutions were visited by the evaluator.

154. It must be noted that the project duration was perceived as too short by some key partners.[33] It was said that the project ended just as most of the key departments had been mobilized and communities had gained interest. It must

[33] Botswana (official from the Department of Water Affairs) and South Africa (Officials from the Department of Water Affairs and Forestry.

also be noted that the end of the project was perceived as abrupt, by some partners in Botswana, South Africa, and Zimbabwe. For projects of this nature where several government partners have to be mobilized, longer project duration is necessary.

155. According to the local level capacity building report the focal project institution in Botswana (the Department of Water Affairs) was made responsible for distribution of capacity building materials. According to the DWA official interviewed, it was not clear whose responsibility it was at the end of the project to distribute project materials (river game posters). The river game, didactic poster, and video are still at the DWA offices. There was no budget to disseminate the outputs. It was not clear to the evaluator whether this was a case of lack of resources on the part of the Government of Botswana or it was lack of interest and lack of ownership of the project.

156. In Botswana officials said that the project was terminated before activities were completed. The office of disaster management said that they had initiated swimming classes at the Shoshowe community; this activity could not continue. Again, as in paragraph 155, it was not clear to the evaluator whether the government could not continue the implementation of such an important activity due to lack of resources or lack of interest in the project as well as lack of ownership and political will.

157. According to the project manager Zimbabwe was the best implementation example despite all the economic challenges that the implementation team had to face. The team also dealt with the untimely loss of the national project coordinator at a critical time in project implementation. Further, the location of project sites in Zimbabwe, at 700km from where the project team was based, was far from ideal. This distance may have limited interaction between the project team (national coordinator, consultants, and other government officials) and the communities where interventions were implemented.

Relevance of project objectives

158. The project addressed a key problem in the basin countries. As such, it was well-received by the governments of the four countries.

159. In Mozambique the INGC said the project was important in terms of strengthening the cooperation and a better integration of the four basin countries regarding disaster preparedness and vulnerability reduction. This sentiment was echoed by MICOA and others in South Africa saying that this was the first time that all countries sat together, openly sharing hydrological information and even discussing a common approach to modelling floods in the Limpopo basin. MICOA indicated that in Mozambique there is now better interagency collaboration as well as a result of the project.

Efficiency

160. UN-HABITAT implemented a very relevant project, producing relevant outputs and initiating important processes (such as the flood forecasting and the early

warning task team for LIMCOM) on a limited budget. While the project achievements over the 3 year implementation time frame may fall short of the project document, these were achieved with a limited budget. From this point of view, the return on the project investment was reasonable and it can be concluded that the project was indeed cost effective.

161. Changes in project design to include Botswana impacted the budget. Additional activities to be implemented in Botswana were included and resources from the original budget allocated to these additional activities[34]. Implementation of activities in Botswana was done at no additional cost to the GEF; budget was allocated from activities targeted for the other countries (this procedure was agreed to by all countries). While implementation of activities in Botswana compromised budgets for activities in the other countries it must be noted that the total expenditure in Botswana was limited as priority interventions were not implemented in this country. An alternative available to UN-HABITAT was to disregard the recommendations from the other three governments to include Botswana. However this would limit the likelihood for acceptance of outputs and recommendations by the riparian governments. As highlighted by one SADC WSCU official, the approach adopted for projects in the Limpopo basin is "all countries or none".

162. While it was difficult to obtain the support from participating governments that contributed to in-kind co-financing, ultimately the contributed co-financing was greater that indicated in the project document.

163. In kind support from the participating governments was in the form of office space and staff time (for staff other than national coordinators) for participating in project activities nationally as well as at sub regional meetings. It was not possible to determine the actual value of the contributions as documentation of this was not available. At project design it had been agreed that part of the in-kind contribution of governments would be through provision of transport for field activities. This was not always possible as the governments departments sometimes do not have sufficient vehicles for their operational programs. In Mozambique, for example, project personnel said they used their personal vehicles to travel to the site and were reimbursed for fuel. The project manager indicated that in South Africa and Zimbabwe project personnel faced similar transport challenges and had to use their personal vehicles.

164. In-cash contribution from UN-HABITAT was estimated at about $600,000.00, made up of the project coordinator's time and in-kind contributions of outcomes from its Cities Alliance project.[35]

[34] These activities include national baseline, land use planning at local level, and participation at regional workshops.

[35] Based on interview with project coordinator; no supporting documentation. Cities Alliance Project is UNHABITAT project that produced materials relevant for living with floods. These materials were used in awareness campaigns.

D. Catalytic Role

165. While no replication was observed, there were several initiatives at different levels of implementation at local, basin, and national levels at the time when the project was implemented that appear to have been catalyzed by the project.

166. In Mozambique, the project is viewed by the DNA as having catalyzed the approval of the National Water Act in 2007. Participatory planning process is specifically referenced by the act.

167. The MICOA Director of Territorial Planning indicated that the project provided an impetus for the Territorial Act 19/2007 for establishing boundaries where territorial planning must be done. It prescribes participatory planning processes with communities drawing their own spatial plans.

168. Also in Mozambique in parallel to the project process was the formulation of structured plans for urban areas. These plans were in draft form at the time of the interview and were said to have been influenced by the project, particularly the participatory planning component.

169. Previous government approach to dealing with floods only focused on evacuation methodologies of the communities from flood prone areas where they were settled. As a result of the project and related UN-HABITAT work in Mozambique, and having realized from the work implemented by UN-HABITAT, the government has realized that communities can adapt and implement the necessary interventions that enable living with floods. The government has begun talking about living with floods.

170. The classroom block built in Mozambique is considered by the government to be a good pilot. MICOA (Territorial Planning Department) indicated that there is ongoing dialogue with INGC and Department of Public Works to implement more demonstration schools in the country. The Mozambican government is building houses in the Zambezi basin; this was seen as an opportunity to demonstrate the relevance of the elevated structures. The Chibuto District Administrator (DA) complemented the model building, saying it would be most appropriate for six other schools located in the floodplain in the district.

171. In the Beitbridge province in Zimbabwe the provincial EMA officials said that there was a plan for replication of the land use planning activities.[36] However, they lacked input from project team in the form of the land use map produced by the local consultants. From the document, it appears there was a workshop with communities to identify flood related land use problems. However, the final report was not made available to both the Beitbridge district EMA office and the community. The EMA official at Beitbridge was persistent that they need this report to take the next steps in implementing participatory land use plans with the communities. Without this feedback, it is unlikely that any outcomes of the study will be scaled up.[37]

[36] There was no document or reference to substantiate this.
[37] It must be noted that the local consultant team held feedback meetings directly with the community.

E. Assessment of Monitoring and Evaluation Systems

172. The apparent M&E plan for the project is the logical framework in the project document that the Project manager used for tracking progress and reporting purposes. The logical framework was used in reporting progress to UNEP on a six-monthly basis as required by UNEP. The targets presented in the logical framework were also used in reporting progress in the annual sub-regional meetings involving all basin countries that were held. These meetings were used to present project progress reports as we as to review project progress.

173. The M&E activities implemented included

- Several field surveys by project team (national coordinator, other government department staff as well as project consultant) in the different countries; these field visits were undertaken in the sites where participatory planning sessions were undertaken, to monitor community involvement and self-organisation capacity and evaluate conditions for implementing priority interventions
- Steering committee meetings to assess project results were organised at both the national level and the sub-regional levels through annual workshops
- Visits by UN-HABITAT senior staff from the Regional Office for Africa and the Arab States (ROAAS) to the participating countries to monitor the project progress. UN-HABITAT ROAAS was represented at the sub-regional meetings held in Maputo (Mozambique), Harare (Zimbabwe), and in Pretoria (South Africa) on 27 September 2004, on 15 and 16 December 2005, on 5 and 6 December 2006 respectively[38]. Project progress was presented and discussed at all the meetings
- Documents/material produced by consultants and/or sub-contractors has been reviewed regularly by the project team, UNEP officials, UN-HABITAT-ROAAS and other bi-multilateral partners
- Annual PIR reports were prepared by UN-HABITAT and sent to UNEP. These were consistent with the substantive half yearly reports sent to UNEP and relatively accurate.
- Quarterly financial and substantive progress reports submitted to UNEP by UN-HABITAT.[39]

174. While most of the indicators in the logical framework were 'SMART', some indicators were vaguely related to the activities. For example, the extent to which Activity 2.2.5 (defining ecosystem conservation approaches to be implemented by flood-affected populations, including recommendations for rural settlements policies) and Activity 2.2.6 (dissemination of ecosystem management guidelines in appropriate languages were successfully implemented) cannot be measured easily with the indicators provided in the log frame.

[38] As documented in sub-regional workshop proceedings report.
[39] A review of the quarterly financial statements were not included for this draft report.

Budgeting and Funding for M&E Activities

175. The project budget did not include specific funding for the implementation of an M&E plan. Review of project progress was combined with the sub-regional workshops that were budgeted for.

Long-term Monitoring

176. The project document does not address necessary features for the long-term sustainability of the project. This is necessary for measuring the impact of the project that cannot be measured soon after the end of project implementation. Furthermore, while adoption and implementation of interventions[40] is implicitly expected, there are no indications of whom or which institution is expected to implement the interventions in more areas.

F. Preparation and readiness

177. The project was quite ambitious (even without the inclusion of the fourth riparian country), with many activities to be implemented in three countries over two years. Given the budget available for the project as well as the initial target project area, it would have been logical to implement the project in Mozambique, South Africa and Zimbabwe as in the project document. However, the project team and government stakeholders believed that inclusion of Botswana would have increased the likelihood for adoption of outcomes by governments and LIMCOM as well as the sustainability of project outcomes.

178. It was acknowledged from the onset that participating government departments did not have adequate personnel and that in addition to contributions to the project; the staff from these departments would normally be involved in their normal responsibilities.

179. Initiation of project activities was affected by the slow recruitment process of UNDP in countries other than Mozambique where UN-HABITAT has a physical presence. The delays as a result of UNDP process can, in future, be avoided by better preparedness so that impact of the delays is minimized.

180. Securing and measuring co-financing from participating governments (as stated in the project documents) was not well planned for. The project budget did not show how this would be valued through project implementation. MICOA in Mozambique, for example, did not know how to cost provision of office space, part of its contribution to co financing, to the project. As a result UN-HABITAT had a problem with estimating the level of actual co-financing that materialized from the participating governments.

181. The needs of participating governments were underestimated in the project design. While these departments could house the project coordinators, expecting them to provided transport for project activities was unrealistic. This is clear in the case of Zimbabwe, where the national coordinator kept insisting on a project

[40] Buildings on elevated foundations (replication of interventions), continued dissemination of river basin game for awareness, dissemination of flood awareness materials, continued use of participatory planning processes by government departments, ongoing revisions to contingency plans by communities and local authorities.

vehicle even when it was clear that this could not be accommodated within the project budget. In Mozambique, transport was also problematic as MICOA could not meet its commitment to provide transportation for project staff to travel to the filed. Often the project personnel had to use their personal vehicles to travel to the project sites.[41]

182. Regardless of the limited budget and operational constraints of the government partners, project sites in South Africa and Zimbabwe were located far from where the national coordinators were based. In Zimbabwe in particular, the project sites were at least 700km by road from Harare. It should have been clear from the start of the project that this would limit the national coordinator's contact with local level activities and institutions.

G. Country Ownership and drivenness

183. Country ownership and drivenness should be addressed from two perspectives: participation and financial contribution. Countries participated and contributed time; an indication of ownership of the project and processes that were ongoing. Some countries (e.g. Zimbabwe) did not have the means to make financial contributions. There are instances where governments could have contributed, such as provision of vehicles to travel to sites where activities were implemented or dissemination of materials produced by the project. There was no indication of such voluntary contribution. A case in point is that of Botswana where the government department immediately stopped activities that seemed to have minimal financial requirement at the end of the project.

184. Despite the budgetary and other constraints mentioned in earlier sections of this report, the participating countries had strong ownership of the project. This is evident in the participation and contributions during sub-regional meetings.

185. While there may have been no specific budget lines within ministry budgets for the project (to cater for staff attending project workshops, community meetings, and other activities associated with the project), the focal departments played their role in committing staff to the project as well as providing office space. However, it must be pointed out that other than the staff directly involved in the project (the national coordinators and regional coordinator) the other government staff also had to attend to their normal tasks.

H. Stakeholder Participation and Public Awareness

186. While the project did not have a specific 'stakeholder analysis' activity, the relevant stakeholders were identified at the beginning of the project. Early on in project implementation the inclusion of Botswana in the implementation process was identified as critical for credibility and acceptance of outcomes regionally. Other stakeholder stakeholders that had been identified from the beginning insisted on inclusion of Botswana. The effort by the project team to bring

[41] From interview with Mozambique national coordinator, Project Coordinator, and the director of DINAPOT.

Botswana on board (mentioned in paragraph 30) is an indicator of the awareness at project level, of the importance of involving all relevant stakeholders.

187. Relevant stakeholders were represented as far as was possible during project meetings and the sub-regional training workshops that were held. But during implementation some key stakeholders relevant for sustainability of outcomes were not fully involved. In Zimbabwe where a school was proposed at Shashe, the progress of the school building was very slow. While this was attributed to poor leadership in the community, lack of involvement of the local authorities (the RDC and the DA's office) contributed to the lack of progress. It was clear that when these authorities were involved some progress was realized[42]. This progress can be attributed to this involvement by the relevant authorities.

188. The project team failed to keep all relevant stakeholders informed throughout the implementation of the project. As a result some stakeholders were not clear on the project execution and its objectives as well as their role. For example, some stakeholders attended only one sub-regional workshop / meeting out of the three that were held, and therefore were not fully aware of the project and chose not to participate in the evaluation process on this basis. It is clear that such stakeholders were not clear of their role in the project. In the case of Zimbabwe it was stated that there was no feedback at (Beitbridge) district level where activities were being implemented. In two cases[43], the interviewees had to be reminded of the project in order to remember the details of their participation.

I. Financial Planning

189. The financial planning was assessed based on the budget, expenditure, and budget review information provided only.

190. The inclusion of Botswana at implementation stage after the project approval albeit for a limited number of activities had a negative impact on the project.

191. From the detailed discussion with the Director for Territorial Planning at MICOA in Mozambique, clarity was needed on how co-financing would be calculated and reported to UNEP. While it was clear that the department would contribute in staff time, office space, and transport to the field he didn't know how to compute the value of the co-financing. However, the department had its own internal problems with transportation and failed to provide this as agreed.

192. Because of the lack of clarity on the co-financing computation, the Project Coordinator was not clear of the exact amount of co-financing realized from the participating countries, but was sure it was more than had been indicated in the project document.

[42] From discussion with local authorities and stakeholders at Beitbridge (May 2008).
[43] In South Africa

J. Implementation approach

193. UNEP, as the GEF implementing agency, supervised the overall implementation of the project. UN-HABITAT was the executing agency. It assumed overall responsibility for project execution, including liaison with international cooperating partners, project coordination and technical backstopping. UN-HABITAT provided technical backstopping, liaised with the international consultants (architects) for the design of the "flood-proof" elevated buildings in Mozambique and was responsible for overall execution of the project. In the countries the project was implemented through a national project coordinator housed within the focal government department in each country (the DWA in Botswana, MICOA in Mozambique; the National Disaster Management Office in South Africa, and the Environmental Management Agency in Zimbabwe)

194. A steering committee comprising of the project's regional coordinator, national coordinators (Governmental representative and country technical coordinator) from Mozambique, South Africa and Zimbabwe, SADC Water Sector, LIMCOM, UNEP and UN-HABITAT had the role of guiding the management of the project, ensuring that deadlines were met and findings and/or recommendations were technically sound. The steering committee was expected to ensure policy conformity at regional level and that linkages were made with the relevant SADC programmes. The review meetings took place during the annual sub-regional workshops, and were attended by the project team, government officials, a representative from the SADC WSCU, and a representative from the LIMCOM. Steering committee meeting notes were not made available to the reviewer. However, the discussions during these meetings are well documented in the workshop proceedings report.

195. The project had a full time regional coordinator over the project's duration. The regional coordinator worked closely with UN-HABITAT, the Steering Committee, River Basin Organisations (particularly the LBPTC) and SADC Water Sector Coordination Unit. A national coordinator was appointed in each country. The national coordinator for South Africa also acted as the regional project coordinator.

196. A policy-level representative was appointed to sit on the project's steering committee. The policy-level person's task was to ensure that the project's inputs feed into the regional, river basin and national policy-making structures of the project area. During implementation LIMCOM was informed of all project activities. LIMCOM was also represented during the sub-regional meetings that were used as fora to review project progress. In addition, a representative from the SADC WSCU was also present in the final project meeting.

197. At the country level, an institution was appointed to host the project. A technical coordinator was appointed in such institutions to act as the project's focal point, as well as to provide technical inputs. The technical coordinator provided the project's link between the project area countries.

198. The project implementation plan is provided in the project document. As hereby presented the main implementation team, consisting of the project coordinator, the regional project coordinator, and the national coordinator have clearly

defined roles. What remains unclear is the role of the staff from the other government departments who were contributing at various stages of project implementation. In Mozambique, for example, one technician from MICOA (DINAPOT) was involved during the entire period of project implementation. The Gaza Province INGC staff were involved peripherally. They understood the importance of the project; however they had no functional role. The technician interviewed indicated that it was not possible for her to go to the field due to lack of funds so she was not involved directly in the implementation[44]. The results of the implementation had been shared with them. The same level of involvement was apparent for Zimbabwe. With regard to national level implementation, the project was poorly designed. The project team took the best possible action to ensure that activities were implemented; however, this seems to be at a cost to sustainability of project outcomes. This oversight should be addressed at the GEF and UNEP level for the implementation of future projects.

K. UNEP Supervision and Backstopping

199. UNEP supported the project as best as it could. The task manager attended sub-regional project meetings in 2005 and 2006 and contributed to the deliberations as documented in the workshop proceedings.

200. The project coordinator was of the opinion that the Task Manager could have done more to support the project. This is particularly with reference to the PIR that is a requirement of the GEF. The project coordinator felt that 'double reporting' was required, given that most of the information needed to complete the PIRs was already provided to UNEP in the six monthly substantive project reports.

201. The process of PIR reporting was not indicated in the project agreement, and appeared to be a request over an above the obligations of the project team, putting a strain on the over stretched personnel time.

3. Overall Assessment and Conclusions

202. Project implementation and achievement of outputs was affected to a large degree by the need to include Botswana, the fourth riparian country that seemed to have been excluded at project design. Botswana needed to be included so as to increase the likelihood of uptake of recommendations and to allow replication at basin level. Also, project outcomes from an inclusive project will have greater sustainability than those from a project excluding one of the basin countries.

203. The process of lobbying Botswana took time, and was concluded halfway through the project. Completion of tasks that included Botswana was delayed. The delays do not seem to have impacted on the quality of the outputs for these tasks.

[44] This financial limitation has been confirmed by the project manager.

204. The ultimate product, the LBAP, as presented at the final meeting in December 2006 was not finalized. The project objective was to develop and implement participatory land use tools and plans for sustainable land management in the Lower Limpopo River Basin in order to reduce the impact of floods on land, ecosystems and human settlements. An action plan was presented at the end of the project, but this was not implemented. From the proceedings of the final project meeting (Pretoria, December 2006), the plan needed further development.

205. The ratings for the various aspects of the project evaluation are presented in the table below. The overall rating for the project is Moderately Satisfactory.

Table of Ratings

Criterion	Summary Comments	Consultant's Rating	EOU Rating
Attainment of project objectives and results (overall rating) **Sub criteria (below)**	An overall rating of moderately satisfactory in line with the ratings of the sub-criteria ratings below.	Moderately satisfactory	The main objectives as presented in the project document do not seem to have been fully achieved mainly due to the inclusion of a 4th country after project approval which limited the effectiveness of resources then available **Moderately Satisfactory**
Effectiveness	With the exception of a few cases mentioned in section four of the report, the project outputs as stated in the project document were achieved within a reasonable time frame were of reasonable quality. Also, on the whole the persons interviewed responded generally favourably and indicated that the project had a positive impact and had injected the much needed stimulus to issues of flood related disasters in the Limpopo. However, the number of persons contacted was limited, and included only a limited set of the key stakeholders. The key stakeholders contacted such as at the SADC WSCU declined to comment citing inadequate knowledge of the project.	Moderately satisfactory	
Relevance	Given the project aim of establishing a regional comprehensive framework that considers: a) an integrated approach to land and water management; b) a reliable flood forecasting and warning system	Satisfactory	

Criterion	Summary Comments	Consultant's Rating	EOU Rating
	linking the three countries (Mozambique, South Africa and Zimbabwe); c) effective mechanisms to receive, analyse and react to early warning information as well as to implement disaster mitigation measures and contingency plans; d) capacity building for local and national authorities focusing on cross-sectoral planning, implementation of actions and monitoring, and e) at community level, eco-sustainable land use planning based on participatory approaches including vulnerability reduction strategies, the project was relevant to the basin countries. The project focus on promoting participatory land use planning to reduce the impact of floods on land, ecosystems and human settlements also contributes to the objectives of the GEF Operational Programme 15 on SLM aimed at promoting integration of land use planning systems through strengthening of participatory institutional mechanism at national and local levels and across sectors as a contribution to improving livelihoods and protecting ecosystem stability, functions and services; incorporation of sustainable land management practices into systems for flood preparedness and strengthening of information management systems to support decision-making at the national and local levels. The project was therefore relevant.		
Efficiency	From the financial (budget and expenditure reports) and project outputs information that was made available to the evaluator, it appears that most planned outputs and activities were achieved in a relatively cost-effective way. Some activities cost more than budgeted for or took longer to implement but this was mainly due to additional activities arising from the addition of the fourth riparian country to the implementation process.	Moderately satisfactory	
Sustainability of Project outcomes (overall rating) **Sub criteria (below)**	The sustainability of the project outcomes depend primarily on the capacity of the governments to continue with activities initiated as well as continued use of outcomes by communities vulnerable to flooding in the basin. Limited capacity in the relevant government departments is a threat to sustainability. In the case of Mozambique and Zimbabwe, without	Moderately Likely (ML)	EOU agrees with the evaluator. It appears that the various central and local governments either lack of interest (Botswana) or of resources. The likelihood of the project's achievements

Criterion	Summary Comments	Consultant's Rating	EOU Rating
	external sources of financing sustainability is expected to be low. Sustainability will also depend on the capacity within the relevant departments. With government departments continuously losing staff, this may be the single largest threat to sustainability of the outcomes of the project. On the other hand, the existence of institutions such as LBPTC (LIMCOM) and the SADC WSCU, and the impetus given by the project it is expected that at basin level sustainability of project outcomes will be ensured. Sustainability of project outcomes will be enhanced if the focal government departments can mobilize all relevant national stakeholders around the LBAP and implement it. The LBAP is likely to be implemented as the LIMCOM 'endorsed' the project. Given the ongoing changes in Zimbabwe it is not possible to say with certainty what the sustainability of the project outcomes will be at basin level. The rating given therefore pertains to the other three basin countries		being sustainable does not seem to be very positive. An obvious example is the school built thanks to the project, but empty as the Mozambican government has no funds to furnish it with; meaning that the building will remain idle for some time. **Moderately Likely**
Financial	Given the variable economic environment in the region, it is not possible to give one rating across the countries	No rating given	
Socio Political	Given the variable political environment in the region, it is not possible to give one rating across the countries	No rating given	
Institutional framework and governance	Given the variable environment in the region, it is not possible to give one rating across the countries	No rating given	
Achievement of outputs and activities	The project was complex and ambitious, and had time and budgetary constraints. Regardless of these limitations all outputs as described in the project document were achieved to a relatively acceptable standard. Feedback to the implementation process and interim project outputs was provided through the sub-regional meetings that were held annually. However, the project was weak in formulating the basin Action Plan. The LBAP as presented at the end of the project is not in final form. As a conclusion for the process recommendations for its implementation should be made to LIMCOM / LBPTC.	Moderately satisfactory	The project was very complex and regardless of time and budget limitations all outputs were undertaken although weak. **Satisfactory**

Criterion	Summary Comments	Consultant's Rating	EOU Rating
Monitoring and Evaluation (overall rating) Sub criteria (below)	Based on the rating of sub-criteria below, the overall rating for this section is 'moderately satisfactory'.	Moderately Satisfactory	More follow-up and monitoring practices should have been active at all levels of project management: task-manager, project coordinator and country coordinators. **Moderately Satisfactory**
M&E Design	The Project Document had a detailed log frame with clear indicators. The log frame was the basis of project M&E activities. The specific outputs indicated in the log frame were used as indicators of project performance. The project did not have a budget for monitoring and evaluation. Baseline was established in the first year of the project. National baseline reports were produced.	Moderately satisfactory	
M&E Plan Implementation (use for adaptive management)	Project progress reviews were carried out during the sub-regional workshops in December 2004, 2005, and 2006. Workshop proceedings contain details of discussions and decisions taken	Moderately satisfactory	
Budgeting and Funding for M&E activities	There was no clear budgeting for M&E activities. Reporting and sub-regional workshops which constituted part of the M&E activities were implemented within the budgets of the sub-regional workshops	Moderately unsatisfactory	
Preparation and readiness	Weak planning for implementation. There was inadequate preparation for implementation regarding the inclusion of Botswana. There was inadequate preparation for establishing country project teams	Moderately unsatisfactory	Delays due to UNDP's administration could have been foreseen both by the implementing and executing agencies. Reasons for including Botswana only after project approval do not seem strong enough. Especially as the country did not seem to be too interested in the project throughout its execution hence jeopardizing the accomplishments of the project objectives. **Moderately Satisfactory**

Criterion	Summary Comments	Consultant's Rating	EOU Rating
Country ownership / drivenness and Stakeholder Involvement	The continued commitment of governments was evident in participation and feedback at sub-regional meetings that served as reviews of progress. These workshops provided for good involvement on the part of select individuals from the basin countries. Relevant stakeholders such as SADC WSCU were represented at sub-regional meetings and gave feedback to the process. The Limpopo Basin Commission was represented at the sub-regional workshops. Local level stakeholders not adequately involved; their role during implementation was not clear. The basin countries did not show relevant commitment through provision of extra, even if limited financial support to project activities. A clear example is the case of Botswana where no further dissemination of outputs or finalization of activities that were initiated is taking place due to lack of funds.	Moderately unsatisfactory	There seem to have been an overall lack of ownership to this project which is putting the project's achievements and sustainability at risk. Some main project stakeholders did not appear to be acquainted with the project. Provincial Government officials were not adequately involved in the decision processes nor training activities. Requests and suggestions made locally were not always listened to e.g. buildings being built in the wrong areas. **Unsatisfactory**
Financial planning	The evaluator did not review all documents relating to financial reporting; only documents on budget and expenditures were reviewed. Activities implemented in Botswana were not included in the project and therefore not originally budgeted for. Implementation of activities in Botswana may have contributed to incomplete implementation of other activities (e.g. implementation of the basin strategic action plan) All activities were implemented; some activities not successfully due to financial constraints. These constraints should have been apparent (to the GEF, UNEP, and UN-HABITAT) at the time of project design.	Moderately unsatisfactory	The executing agency proved to be flexible and able to further distribute the available funds undertaking activities in all four countries. However these may have been too thin once new major decisions were made only after project approval. **Moderately Unsatisfactory**
UNEP Supervision and backstopping	From the information available regarding UN supervision and backstopping and feedback from the project coordinator, it appears that UNEP supervision in the project implementation and management was moderately satisfactory.	Moderately Satisfactory	EOU agrees with the consultant **Moderately satisfactory**

Criterion	Summary Comments	Consultant's Rating	EOU Rating
Overall Rating		**Moderately satisfactory**	**Moderately Satisfactory**

4. Lessons Learnt and Recommendations

Lessons from project experience

206. The project had a slow start due to the problems experienced with recruiting project personnel. The recruitment delay was a result of the dependence on UNDP for recruitment in the project countries. In addition the negotiations to include Botswana took a long time. Implementation of the project would have been significantly expedited if there had been lead time before the formal commencement of the project. This period would have been used to introduce all stakeholders to the project and to recruit key project personnel, and to iron out issues such as the inclusion of Botswana. This lesson is directed at the GEF and UNEP for consideration in implementation of similar projects.

207. The delays associated with including Botswana during the project implementation phase, an emerging lesson is that of the importance of stakeholder involvement from project design stage. Where the success of project implementation hinges on an inclusive approach, there needs to be a clear and agreed plan of involvement of all stakeholders prior to finalization of project implementation planning.

208. Sustainability of the local and national level interventions needs to be more comprehensively addressed at the outset of project design and be adequately planned for. Sustained long term impacts of the project on reducing impacts of floods depend on the skills transferred as well as continued training. Provision for such training needs to be assured at the planning stage.

209. The importance of good communications and flexibility**:** UN-HABITAT demonstrated extreme flexibility in their project management. They were able to adapt to the situation on the ground during implementation through changing the approach and design of components.

Recommendations

210. **Recommendation 1:** UN HABITAT should follow-up on the Limpopo Basin Action Plan and final recommendations for its adoption made to LIMCOM / LBPTC.

211. **Recommendation 2:** It is recommended that all key outputs of the project be disseminated widely to all intended users. In particular the river basin game and didactic poster should be disseminated widely in Botswana, South Africa, and Zimbabwe in order to reach a wider audience. Furthermore, there has to be a clear plan for dissemination of the cartoon video produced. The country teams no longer have funds for this. While acknowledging the efforts already made by UN-HABITAT to secure funding for follow up activities it is recommended that UN-HABITAT, through its continued presence and activities in the basin countries, assist countries to identify channels for dissemination.

212. **Recommendation 3:** UN-HABITAT should ensure that local level interventions that were initiated be completed at Shashe and at GaMampa where they are not complete.

213. **Recommendation 4:** Sustainability of the outcomes of the project depends on the outputs reaching the stakeholders and continued application in the long term. This is possible where results are shared with stakeholders. In the specific case of Zimbabwe, feedback to district officials and community stakeholders needs to be carried out.

214. **Recommendation 5:** From inception, this project recognized the Limpopo Basin Permanent Technical Committee / Limpopo watercourse Commission (LIMCOM) as a key partner and user of the project outcomes. The LBAP provides a good basis for the riparian states to discuss integrated land and water management to mitigate the impacts of floods. In order for LIMCOM to implement (or to lead the implementation of) all aspects of the LBAP, it is necessary that the proposed Limpopo Basin Action Plan be better aligned with the mandate of LIMCOM if the project team continues to view LIMCOM as the strategic implementation partner. It is recommended that UN-HABITAT continues its discussions with LIMCOM to ensure buy in to the action plan to increase chances of sustainability of this key project outcome.

215. **Recommendation 6:** As a way forward and a means to ensure wider use, applications and sustainability of project outcomes, it is recommended that UN-HABITAT synthesizes project outcomes into a single, concise report for wide dissemination. Further, a shorter summary for policy and decision makers with key messages and policy implications should be produced and disseminated.

216. **Recommendation 7:** It is recommended that UN-HABITAT collaborates with WaterNet and provides flood-forecasting and early warning training material for inclusion into the Integrated Water Resources Management (IWRM) and Water Resources Engineering and Management (WREM) curricula for the regional Master of Science degree and professional training offered by WaterNet. This is not only a way of reaching a wider group of professionals but also ensuring that future water practitioners, decision, and policy makers in the southern Africa region are aware of the need to incorporate land use planning in water resources management.

217. **Recommendation 8:** Implementation of the project started at least three years after the concept initiation and submission of the PDF-A[45]. The time lag between concept development, funding, and actual implementation of project was long. Many changes occur in the countries, especially relating to national priorities as well as staffing. The executing agency usually needs to re-mobilize support from the participating governments resulting in a drawn out project initiation phase leaving a shorter period for implementation of activities. For similar future multi-country, multi-stakeholder projects, it is recommended that UNEP and the GEF should adapt or encourage the lead time concept to allow for the time required to mobilize all stakeholders. This will provide the executing

[45] Project implementation started in the same year that it was approved.

agency with the necessary time to bring all stakeholders on board, ensuring sustainability of outcomes.

Annex 1: Terms of Reference for the Terminal Evaluation

TERMS OF REFERENCE

Terminal Evaluation of the UNEP GEF project
"Sustainable land use planning for integrated land and water management for disaster preparedness and vulnerability reduction in the lower Limpopo Basin"
GFL/ -2328 – 2770 - 4805

1. PROJECT BACKGROUND AND OVERVIEW

Project rationale

The Lower Limpopo basin presents a highly significant vegetal and animal diversity, which enhance the global importance of its ecosystems. The savannah is the dominant eco-region in the area and includes a rich panorama of large mammals, birds and endemic plant species. Its high natural value stimulates important eco-tourism and tends to be conserved thanks to initiatives such as the Great Limpopo Park. The river floodplain also holds significant wetlands that have critical hydrological functions (flood mitigation, groundwater recharge and water filtration) and host endemic species of flora and fauna.

As natural phenomena, flooding and floods are an integral part of the hydrological cycle and cannot be managed in isolation. High flows propagate along the drainage network of a basin, thus affecting both upstream and downstream parts. Given the recent repeated frequent flooding affecting the lower Limpopo River Basin however, concerned SADC countries (South Africa, Mozambique and Zimbabwe) have shown interest to address this issue, especially Mozambique being the country most affected due to its downstream location.

There is a need for understanding the ecological and economic role of the recurrent annual flooding as well as the destructive impacts of floods on the environment and human society. The complex nature of this natural phenomenon could be effectively addressed by adopting an integrated flood management programme in the three countries that stresses disaster preparedness and mitigation techniques through sustainable land use planning.

In order to deal effectively with flooding and related impacts on ecosystems functions and services it is important to establish a regional comprehensive framework that considers: a) an integrated approach to land and water management; b) a reliable flood forecasting and warning system linking the three countries (Mozambique, South Africa and Zimbabwe); c) effective mechanisms to receive, analyse and react to early warning information as well as to implement disaster mitigation measures and contingency plans; d) capacity building for local and national authorities focusing on cross-sectoral planning, implementation of actions and monitoring, and e) at community level, eco-sustainable land use planning based on participatory approaches including vulnerability reduction strategies.

The overall goal of the project was stated as: '*to develop and implement participatory land use tools and plans for sustainable land management in the Lower Limpopo*

River Basin in order to reduce the impact of floods on land, ecosystems and human settlements'

The main objective was stated as:

- The project focuses on creating a favourable enabling environment for flood mitigation and vulnerability reduction by strengthening of legal, regulatory and policy frameworks and institutional and human capacity building.

The expected outcomes from this project included:

1. A regional integrated land use management plan to lessen land degradation and minimise the risk of losing life and damage to ecosystems in future floods
2. Enhanced capacity and effective tools in participatory land use planning and disaster preparedness techniques for sustainable land management to reduce the vulnerability of communities living in flood prone areas

Relevance to GEF Programmes

The project will respond to the objectives of the GEF Operational Programme n. 15 (no longer operating though due to change of GEF Secretariat) on Sustainable Land Management aimed at promoting integration of land use planning systems through strengthening of participatory institutional mechanism at national and local levels and across sectors as a contribution to improving livelihoods and protecting ecosystem stability, functions and services; incorporation of sustainable land management practices into systems for flood preparedness and strengthening of information management systems to support decision-making at the national and local levels. The project will therefore contribute to GEF Strategic Priority I under Sustainable Land Management (SLM-1): (1) Targeted Capacity Building with a special focus on the integration of land use planning systems through the incorporation of sustainable land management practices into systems developed for extreme climatic events.

Executing Arrangements

The United Nations Human Settlement Programme (UN-HABITAT) Country Office in Mozambique with the support of its Regional Office for Africa and the Arab States (ROAA) in Nairobi, Kenya, was the Executing agency of the project at regional level and provided regional coordination and implementation support to the national counterparts within each Government (Botswana: Ministry of Minerals, Energy and Water Affairs, Department of Water Affairs; Mozambique: Ministry for Coordination of Environmental Affairs, National Directorate of Territorial Planning; South Africa: Department of Water Affairs and Forestry & National Disaster Management Centre; Zimbabwe: Ministry of Environment and Tourism, Environmental Management Agency). One national coordinator was recruited for each participating country and placed in the governmental counterpart's office.

Project Activities

The project duration was initially 24 months starting September 2004, which was later revised and project activities were completed in September 2007, making a total duration of 37 months.

Activities for outcome 1:

1. Establish an inter-country cooperation framework for integrated land use management in the lower Limpopo river basin;

2. Stimulate supportive legal, regulatory and policy changes at all levels relevant to flood mitigation, vulnerability reduction and land use planning

Activities for outcome 2:

1. Development of effective flood forecasting and early warning systems linked to national sustainable land management and disaster management programmes and improving response at community level;
2. Building institutional and community capacity for implementing participatory land use planning for sustainable land management to reduce direct or indirect human impact in occasion of a flood event impact on natural ecosystems;
3. Elaboration and adoption of disaster preparedness techniques, contingency plans and awareness campaigns that will strengthen capacities of riparian communities to cope with flood events;

Budget

	TOTAL (including Block A)
PDFA	
GEF Medium- sized project funding	US$ 25,000
Co-financing Government of Mozambique	US$ 970,000
Co-financing Government of South Africa	US$ 627,500
Co-financing Government of Zimbabwe	US$ 210,000
Co-financing UN-HABITAT	US$ 760,000
	US$ 2,822,500

CO-FINANCING AND LEVERAGED RESOURCES:

Budget in US$	**GEF**	**UN-HABITAT**	**Govt of Mozambique**	**Govt of South Africa**	**Govt of Zimbabwe**	**Total**
Proposed Contribution	995,000	760,000	230,000	627,500	210,000	**2,822,500**
Actual Contribution	995,000	760,000	800,000	950,000	365,000	**3,870,000**
In-Kind Contribution	0	160,000	0	6,500	0	**166,500**
In-Cash Contribution	995,000	600,000	800,000	943,500	365,000	**3,703,500**

Objective and Scope of the Evaluation

The objective of this terminal evaluation is to determine the extent to which the project objectives were achieved, or are expected to be achieved, and assess if the project has led to any other positive or negative impacts. If possible the extent and magnitude of any project impacts to date will be documented and the likelihood of future impacts will be determined. The evaluation will also assess project performance and the implementation of planned project activities and planned outputs against actual results. The evaluation will focus on the following main questions:

Has the project*:*

- Assessed and strengthened the legal, regulatory and policy frameworks in order to create a favourable enabling environment for managing flood related impacts in the Lower Limpopo Basin area?
- Built institutional and human capacity able to mitigate flood driven human and environmental vulnerability via effective tools in participatory land use planning and disaster preparedness techniques for sustainable land management?
- Developed and disseminated a regional integrated land use management plan to lessen land degradation and minimise the risk of losing life and damage to ecosystems in future floods?

1. <u>Methods</u>

This terminal evaluation will be conducted as an in-depth evaluation using a participatory approach whereby the UNEP/DGEF Task Manager, key representatives of the executing agencies and other relevant staff are kept informed and regularly consulted throughout the evaluation. The consultant will liaise with the UNEP/EOU and the UNEP/DGEF Task Manager on any logistic and/or methodological issues to properly conduct the review in as independent a way as possible, given the circumstances and resources offered. The draft report will be circulated to UNEP/DGEF Task Manager, key representatives of the executing agencies and the UNEP/EOU. Any comments or responses to the draft report will be sent to UNEP / EOU for collation and the consultant will be advised of any necessary revisions.

The findings of the evaluation will be based on the following:

I. A desk review of project documents including, but not limited to:
   (a) The project documents, outputs, monitoring reports (such as progress and financial reports to UNEP and GEF annual Project Implementation Review reports) and relevant correspondence.
   (b) Notes from the Steering Group meetings
   (c) Other related material produced by the project staff or partners.
   (d) Relevant material published by the project or available via the web.

II. Interviews with project management and technical support including the institutions involved in the implementation of the project which include UN-HABITAT, National executing agencies such as the Ministry of Minerals, Energy and Water Affairs, Department of Water Affairs (Botswana); the Ministry for Coordination of Environmental Affairs, National Directorate of Territorial Planning (Mozambique); the Department of Water Affairs and Forestry & National Disaster Management Centre (South Africa); the Ministry of Environment and Tourism, Environmental Management Agency (Zimbabwe); (see Annex 5 for list of contact names and details).

III. Interviews and Telephone interviews with intended users for the project outputs and other stakeholders involved with this project, including in the participating countries and international bodies. The Consultant shall determine whether to seek additional information and opinions from representatives of donor agencies and other organisations. As appropriate, these interviews could be combined with an email questionnaire.

IV. Interviews with the UNEP/DGEF project task manager and Fund Management Officer, and other relevant staff in UNEP dealing with Land degradation-related activities as necessary. The Consultant shall also gain broader perspectives from discussions with relevant GEF Secretariat staff.

V. Field visits to at least two project sites.

VI. In order to acquaint himself/herself with GEF -if need be-, it might be useful for the evaluator to consult the GEF web site: www.thegef.org

Key Evaluation principles.
In attempting to evaluate any outcomes and impacts that the project may have achieved, evaluators should remember that the project's performance should be assessed by considering the difference between the answers to two simple questions ***"what happened?***" and ***"what would have happened anyway?".*** These questions imply that there should be consideration of the baseline conditions and trends in relation to the intended project outcomes and impacts. In addition it implies that there should be plausible evidence to attribute such outcomes and impacts to the actions of the project.

Sometimes, adequate information on baseline conditions and trends is lacking. In such cases this should be clearly highlighted by the evaluator, along with any simplifying assumptions that were taken to enable the evaluator to make informed judgements about project performance.

2. Project Evaluation Parameters
The success of project implementation will be rated on a six point grade scale from 'highly unsatisfactory' to 'highly satisfactory'. In particular the evaluation shall **assess and rate** the project with respect to the eleven categories defined below:[46]

[46] However, the views and comments expressed by the evaluator need not be restricted to these items.

A. Attainment of objectives and planned results:

1. *Effectiveness:* Evaluate how, and to what extent, the stated project objectives have been met, taking into account the "achievement indicators". The analysis of outcomes achieved should include, *inter alia*, an assessment of the extent to which the project has directly or indirectly assisted policy- and decision-makers to apply information supplied by this project in their land management. In particular:
    - Evaluate the immediate impact of the project on national and regional conservation management and land use planning measures; including the Great Limpopo Park and the SADC Water Sector Strategic Approach which the project was meant to complement particularly from a sustainable land use planning perspective. Also assess the project's impact on national early warning systems and sound national disaster management programmes including disaster preparedness and vulnerability reduction principles at human settlements and community levels.
    - As far as possible, also assess the potential longer-term impacts considering that the evaluation is taking place upon completion of the project and that longer term impact is expected to be seen in a few years time. Frame recommendations to enhance future project impact in this context. Which will be the major 'channels' for longer term impact from the Limpopo project at the national and international scales?

2. *Relevance*: In retrospect, were the project's outcomes consistent with the focal areas/operational program strategies and country priorities? Ascertain the nature and significance of the contribution of the project outcomes to the Directorate of Food, Agriculture and Natural resources of SADC Secretariat, UNCCD and the wider land-degradation portfolio of the GEF.

3. *Efficiency*: Was the project cost effective? Was the project the least cost option? Was the project implementation delayed and if it was, then did that affect cost-effectiveness? Assess the contribution of cash and in-kind co-financing to project implementation and to what extent the project leveraged additional resources. Did the project build on earlier initiatives, did it make effective use of available scientific and / or technical information. Wherever possible, the evaluator should also compare the cost-time vs. outcomes relationship of the project with that of other similar projects.

B. Assessment of Sustainability of project outcomes:

Sustainability is understood as the probability of continued long-term project-derived outcomes and impacts after the GEF project funding ends. The evaluation will identify and assess the key conditions or factors that are likely to contribute or undermine the persistence of benefits after the project ends. Some of these factors might be outcomes of the project, e.g. stronger institutional capacities or better informed decision-making. Other factors will include contextual circumstances or developments that are not outcomes of the project but that are relevant to the sustainability of outcomes. The evaluation should ascertain to what extent follow-up work has been initiated and how project outcomes will be sustained and

enhanced over time. In this case, sustainability will be linked to the continued use and influence of scientific models and scientific findings, produced by the project.

Four aspects of sustainability should be addressed: financial, socio-political, institutional frameworks and governance, and ecological (if applicable). The following questions provide guidance on the assessment of these aspects:

- *Financial resources.* To what extent are the outcomes of the project dependent on continued financial support? What is the likelihood that any required financial resources will be available to sustain the project outcomes/benefits once the GEF assistance ends (resources can be from multiple sources, such as the public and private sectors, income generating activities, and market trends that support the project's objectives)? Was the project was successful in identifying and leveraging co-financing?
- *Socio-political:* To what extent are the outcomes of the project dependent on socio-political factors? What is the likelihood that the level of stakeholder ownership will allow for the project outcomes/benefits to be sustained? Is there sufficient public / stakeholder awareness in support of the long term objectives of the project?
    - *Institutional framework and governance.* To what extent are the outcomes of the project dependent on issues relating to institutional frameworks and governance? What is the likelihood that institutional and technical achievements, legal frameworks, policies and governance structures and processes will allow for, the project outcomes/benefits to be sustained? While responding to these questions consider if the required systems for accountability and transparency and the required technical know-how are in place.
    - *Ecological.* Are there any environmental risks that can undermine the future flow of project environmental benefits? The TE should assess whether certain activities in the project area will pose a threat to the sustainability of the project outcomes. For example, construction of dam in a protected area could inundate a sizable area and thereby neutralizing the biodiversity related gains made by the project or, a newly established pulp mill might jeopardise the viability of nearby protected forest areas by increasing logging pressures; or a vector control intervention may be made less effective by changes in climate and consequent alterations to the incidence and distribution of malarial mosquitoes.

C. Achievement of outputs and activities:

- Delivered outputs: Assessment of the project's success in producing each of the programmed outputs, both in quantity and quality as well as usefulness and timeliness.
- Assess the soundness and effectiveness of the methodologies used for a) developing the best land management plan for the Lower Limpopo Basin; b) identifying acceptable best practices and promoting and implementing

community-based participatory land use planning for sustainable land management; c) Develop an effective flood forecasting and early warning systems disaster preparedness techniques, contingency plans and awareness campaigns that will strengthen capacities of riparian communities to cope with flood events.

- Assess to what extent the project outputs produced have the weight of scientific authority / credibility, and usability necessary to raise public awareness and encourage widespread adoption of such best practices.

D. Catalytic role:

The terminal evaluation will also describe any catalytic or replication effect of the project. What examples are there of replication and catalytic outcomes that suggest increased likelihood of sustainability? Replication approach, in the context of GEF projects, is defined as lessons and experiences coming out of the project that are replicated or scaled up in the design and implementation of other projects. Replication can have two aspects, replication proper (lessons and experiences are replicated in different geographic area) or scaling up (lessons and experiences are replicated within the same geographic area but funded by other sources). Specifically:

- Do the recommendations for management of land around the Lower Limpopo river basin coming from the country studies have the potential for application in other countries and locations?

If no effects are identified, the evaluation will describe the catalytic or replication actions that the project carried out.

E. Assessment of Monitoring and Evaluation Systems:

The evaluation shall include an assessment of the quality, application and effectiveness of project monitoring and evaluation plans and tools, including an assessment of risk management based on the assumptions and risks identified in the project document. The Terminal Evaluation will assess whether the project met the minimum requirements for 'project design of M&E' and 'the application of the Project M&E plan' (see minimum requirements 1&2 in Annex 4). GEF projects must budget adequately for execution of the M&E plan, and provide adequate resources during implementation of the M&E plan. Project managers are also expected to use the information generated by the M&E system during project implementation to adapt and improve the project.

- **M&E design.** Projects should have sound M&E plans to monitor results and track progress towards achieving project objectives. An M&E plan should include a baseline (including data, methodology, etc.), SMART indicators (see Annex 4) and data analysis systems, and evaluation studies at specific times to assess results. The time frame for various M&E activities and standards for outputs should have been specified. Although older generation GEF funded Medium Size Projects (including this one) did not require a detailed M&E plan or log-frames for project proposals, the evaluator will have to assess if an 'informal' M&E plan had been thought through.
- **M&E plan implementation.** A Terminal Evaluation should verify that: an M&E system was in place and facilitated timely tracking of results

and progress towards projects objectives throughout the project implementation period (perhaps through use of a log frame or similar); annual project reports and Progress Implementation Review (PIR) reports were complete, accurate and with well justified ratings; that the information provided by the M&E system was used during the project to improve project performance and to adapt to changing needs; and that projects had an M&E system in place with proper training for parties responsible for M&E activities.

- **Budgeting and Funding for M&E activities.** The terminal evaluation should determine whether support for M&E was budgeted adequately and was funded in a timely fashion during implementation.
- **Long-term Monitoring.** Is long-term monitoring envisaged as an outcome of the project? If so, comment specifically on the relevance of such monitoring systems to sustaining project outcomes and how the monitoring effort will be sustained.

F. Preparation and Readiness

Were the project's objectives and components clear, practicable and feasible within its timeframe? Were the capacities of executing institution and counterparts properly considered when the project was designed? Were lessons from other relevant projects properly incorporated in the project design? Were the partnership arrangements properly identified and the roles and responsibilities negotiated prior to project implementation? Were counterpart resources (funding, staff, and facilities), enabling legislation, and adequate project management arrangements in place?

G. Country ownership / driveness

This is the relevance of the project to national development and environmental agendas, recipient country commitment, and regional and international agreements. The evaluation will:

- Assess the level of country ownership and commitment. Specifically, the evaluator should assess whether the project was effective in providing and communicating land management and land use planning information that catalyzed action in participating countries to improve decisions relating to the conservation and management of the focal natural and human environment in each country.

H. Stakeholder participation / public awareness

Did the project involve the relevant stakeholders through information sharing, consultation and by seeking their participation in project's design, implementation, and monitoring and evaluation? For example, did the project implement appropriate outreach and public awareness campaigns? Did the project consult and make use of the skills, experience and knowledge of the appropriate government entities, NGOs, community groups, private sector, local governments and academic institutions in the design, implementation and evaluation of project activities? Were perspectives of those that would be affected by decisions, those that could affect the outcomes and those that could contribute information or other resources to the process taken into account while taking decisions? Were the relevant vulnerable groups and the powerful, the supporters and the opponents, of the processes properly involved? Specifically the evaluation will:

- Assess the mechanisms put in place by the project for identification and engagement of stakeholders in each participating country and establish, in consultation with the stakeholders, whether this mechanism was successful, and identify its strengths and weaknesses.
- Assess the degree and effectiveness of collaboration/interactions between the various project partners and institutions during the course of implementation of the project.
- Assess the degree and effectiveness of any various public awareness activities that were undertaken during the course of implementation of the project.

I. Financial Planning

Evaluation of financial planning requires assessment of the quality and effectiveness of financial planning and control of financial resources throughout the project's lifetime. Evaluation includes actual project costs by activities compared to budget (variances), financial management (including disbursement issues), and co- financing. The evaluation should:

- Assess the strength and utility of financial controls, including reporting, and planning to allow the project management to make informed decisions regarding the budget and allow for a proper and timely flow of funds for the payment of satisfactory project deliverables.
- Present the major findings from the financial audit if one has been conducted.
- Identify and verify the sources of co- financing as well as leveraged and associated financing (in co-operation with the IA and EA).
- Assess whether the project has applied appropriate standards of due diligence in the management of funds and financial audits.
- The evaluation should also include a breakdown of final actual costs and co-financing for the project prepared in consultation with the relevant UNEP/DGEF Fund Management Officer of the project (table attached in Annex 1 Co-financing and leveraged resources).

J. Implementation approach

This includes an analysis of the project's management framework, adaptation to changing conditions (adaptive management), partnerships in implementation arrangements, changes in project design, and overall project management. The evaluation will:

- Ascertain to what extent the project implementation mechanisms outlined in the project document have been closely followed. In particular, assess the role of the various committees established and whether the project document was clear and realistic to enable effective and efficient implementation, whether the project was executed according to the plan and how well the management was able to adapt to changes during the life of the project to enable the implementation of the project.
- Evaluate the effectiveness and efficiency and adaptability of project management and the supervision of project activities / project execution arrangements at all levels (1) policy decisions:

Steering Group; (2) day to day project management in each of the country executing agencies and UNEP

K. UNEP Supervision and Backstopping

- Assess the effectiveness of supervision and administrative and financial support provided by UNEP/DGEF.
- Identify administrative, operational and/or technical problems and constraints that influenced the effective implementation of the project.

The ***ratings will be presented in the form of a table***. Each of the eleven categories should be rated separately with **brief justifications** based on the findings of the main analysis. An overall rating for the project should also be given. The following rating system is to be applied:

HS = Highly Satisfactory
S = Satisfactory
MS = Moderately Satisfactory
MU = Moderately Unsatisfactory
U = Unsatisfactory
HU = Highly Unsatisfactory

3. <u>Evaluation report format and review procedures</u>

The report should be brief, to the point and easy to understand. It must explain; the purpose of the evaluation, exactly what was evaluated and the methods used. The report must highlight any methodological limitations, identify key concerns and present evidence-based findings, consequent conclusions, recommendations and lessons. The report should provide information on when the evaluation took place, the places visited, who was involved and be presented in a way that makes the information accessible and comprehensible. The report should include an executive summary that encapsulates the essence of the information contained in the report to facilitate dissemination and distillation of lessons.

The evaluation will rate the overall implementation success of the project and provide individual ratings of the eleven implementation aspects as described in section 3 of this TOR. *The ratings will be presented in the format of a table* **<u>with brief justifications based on the</u> findings of the main analysis.**

Evidence, findings, conclusions and recommendations should be presented in a complete and balanced manner. The evaluation report shall be written in English, be of no more than 50 pages (excluding annexes), use numbered paragraphs and include:

i) An **executive summary** (no more than 3 pages) providing a brief overview of the main conclusions and recommendations of the evaluation;
ii) **Introduction and background** giving a brief overview of the evaluated project, for example, the objective and status of activities;

iii) **Scope, objective and methods** presenting the evaluation's purpose, the evaluation criteria used and questions to be addressed;

iv) **Project Performance and Impact** providing factual evidence relevant to the questions asked by the evaluator and interpretations of such evidence. This is the main substantive section of the report and should provide a commentary on all evaluation aspects (A − F above).

v) **Conclusions and rating** of project implementation success giving the evaluator's concluding assessments and ratings of the project against given evaluation criteria and standards of performance. The conclusions should provide answers to questions about whether the project is considered good or bad, and whether the results are considered positive or negative;

vi) **Lessons learned** presenting general conclusions, based on established good practices that have the potential for wider application and use. Lessons may also be derived from problems and mistakes. The context in which lessons may be applied should be clearly specified, and lessons should always state or imply some prescriptive action. A lesson should be written such that experiences derived from the project could be applied in other projects or at portfolio level;

vii) **Recommendations** suggesting *actionable* proposals for improvement of the current project. In general, Terminal Evaluations are likely to have very few (perhaps two or three) actionable recommendations.

Prior to each recommendation, the issue(s) or problem(s) to be addressed by the recommendation should be clearly stated.

A high quality recommendation is an actionable proposal that is:

1. Feasible to implement within the timeframe and resources available
2. Commensurate with the available capacities of project team and partners
3. Specific in terms of who would do what and when
4. Contains results-based language (i.e. a measurable performance target)
5. Includes a trade-off analysis, when its implementation may require utilizing significant resources that would otherwise be used for other project purposes.

viii) **Annexes** include Terms of Reference, list of interviewees, documents reviewed, brief summary of the expertise of the evaluator / evaluation team, a summary of co-finance information etc. Dissident views or management responses to the evaluation findings may later be appended in an annex.

Examples of UNEP GEF Terminal Evaluation Reports are available at www.unep.org/eou

Review of the Draft Evaluation Report

Draft reports submitted to UNEP EOU are shared with the corresponding Programme or Project Officer and his or her supervisor for initial review and consultation. The DGEF staff and senior Executing Agency staff are allowed to comment on the draft evaluation report. They may provide feedback on any errors of fact and may highlight

the significance of such errors in any conclusions. The consultation also seeks agreement on the findings and recommendations. UNEP EOU collates the review comments and provides them to the evaluators for their consideration in preparing the final version of the report.

All UNEP GEF Evaluation Reports are subject to quality assessments by UNEP EOU. These incorporate GEF Office of Evaluation quality assessment criteria and are used as a tool for providing structured feedback to the evaluator (see Annex 3).

4. Submission of Final Terminal Evaluation Reports.

The final report shall be submitted in electronic form in MS Word format and should be sent to the following persons:

Segbedzi Norgbey, Chief, Evaluation and Oversight Unit
UNEP, P.O. Box 30552-00100
Nairobi, Kenya
Tel.: (254-20) 7623387
Fax: (254-20) 7623158
Email: segbedzi.norgbey@unep.org

With a copy to:

Daya Bragante
Project Management Officer Land Degradation
United Nations Environment Programme (UNEP)
Division of GEF Coordination (DGEF)
PO Box 30552-00100
Nairobi, Kenya
Tel: 254 20 7623680
Fax: 254 20 7624041
Email:daya.bragante@unep.org

Alain Grimard
Senior Human Settlement Officer
UN-HABITAT Nairobi
Regional Office for Africa and the Arab States (ROAAS)
P.O. Box 30030
00100 Nairobi, Kenya
Tel : 254 20 7624717
Fax : 254 20 7623904
E-mail: alain.grimard@UNHabitat.org

Mohamed Sessay
Programme Officer Land Degradation
United Nations Environment Programme (UNEP)
Division of GEF Coordination (DGEF)
PO Box 30552-00100
Nairobi, Kenya
Tel: 254 20 7624294

Fax: 254 20 7624041
Email: mohamed.sessay@unep.org

Carmen Tavera
Portfolio Manager
United Nations Environment Programme (UNEP)
Division of GEF Coordination (DGEF)
PO Box 30552-00100
Nairobi, Kenya
Tel: 254 20 7624153
Fax: 254 20 7624041
Email: carmen.tavera@unep.org

The final evaluation report will be printed in hard copy and published on the Evaluation and Oversight Unit's web-site www.unep.org/eou. Subsequently, the report will be sent to the GEF Office of Evaluation for their review, appraisal and inclusion on the GEF website. In addition the final Evaluation report will disseminated to: The relevant GEF Focal points, Relevant Government representatives, UNEP DGEF Professional Staff, The project's Executing Agency and Technical Staff. The full list of intended recipients is attached in Annex 5.

5. Resources and schedule of the evaluation

This terminal evaluation will be undertaken by an international evaluator contracted by the Evaluation and Oversight Unit, UNEP. The contract for the evaluator will begin on 12th of May 2008 and end on 14th of July 2008 (1 month spread over 3 months). After an initial telephone briefing with EOU and UNEP/GEF, the evaluator will travel to Mozambique, South Africa and Zimbabwe (11 days of travel and 20 days desk study). The evaluator will submit a draft report no later than 19th of June to UNEP/EOU. Any comments or responses to the draft report will be sent to UNEP / EOU for collation and the consultant will be advised of any necessary revisions. Comments to the final draft report will be sent to the consultant by 7th of July 2008 after which, the consultant will submit the final report no later than 11th of July 2008.

In accordance with UNEP/GEF policy, all GEF projects are evaluated by independent evaluators contracted as consultants by the EOU. The evaluator should have the following qualifications:

The evaluator should not have been associated with the design and implementation of the project. The evaluator will work under the overall supervision of the Chief, Evaluation and Oversight Unit, UNEP. The evaluator should be an international expert in Environmental Management with specific expertise in river basins. The consultant should have the following minimum qualifications: (i) experience in land use management and planning; (ii) experience with management and implementation of multi-country projects involving shared river basin management in developing countries; (iii) experience with project evaluation. Knowledge of UNEP programmes and GEF activities is desirable. Good understanding and fluency in oral and written English is a must.

6. Schedule Of Payment

The consultant shall select one of the following two contract options:

Lump-Sum Option
The evaluator will receive an initial payment of 30% of the total amount due upon signature of the contract. A further 30% will be paid upon submission of the draft report. A final payment of 40% will be made upon satisfactory completion of work. The fee is payable under the individual Special Service Agreement (SSA) of the evaluator and IS **inclusive** of all expenses such as travel, accommodation and incidental expenses.

In case, the evaluator cannot provide the products in accordance with the TORs, the timeframe agreed, or his products are substandard, the payment to the evaluator could be withheld, until such a time the products are modified to meet UNEP's standard. In case the evaluator fails to submit a satisfactory final product to UNEP, the product prepared by the evaluator may not constitute the evaluation report.

Annex II: Overall Ratings Table

Criterion	Evaluator's Summary Comments	Evaluator's Rating
A. Attainment of project objectives and results (overall rating) **Sub criteria (below)**		
A. 1. Effectiveness		
A. 2. Relevance		
A. 3. Efficiency		
B. Sustainability of Project outcomes (overall rating) **Sub criteria (below)**		
B. 1. Financial		
B. 2. Socio Political		
B. 3. Institutional framework and governance		
B. 4. Ecological		
C. Achievement of outputs and activities		
D. Monitoring and Evaluation (overall rating) **Sub criteria (below)**		
D. 1. M&E Design		
D. 2. M&E Plan Implementation (use for adaptive management)		
D. 3. Budgeting and Funding for M&E activities		
E. Catalytic Role		
F. Preparation and readiness		
G. Country ownership / drivenness		
H. Stakeholders involvement		
I. Financial planning		
J. Implementation approach		
K. UNEP Supervision and backstopping		

RATING OF PROJECT OBJECTIVES AND RESULTS

Highly Satisfactory (HS): The project had no shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Satisfactory (S): The project had minor shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Moderately Satisfactory (MS): The project had moderate shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Moderately Unsatisfactory (MU): The project had significant shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Unsatisfactory (U) The project had major shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Highly Unsatisfactory (HU): The project had severe shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Please note: Relevance and effectiveness will be considered as critical criteria. The overall rating of the project for achievement of objectives and results **may not be higher** than the lowest rating on either of these two criteria. Thus, to have an overall satisfactory rating for outcomes a project must have at least satisfactory ratings on both relevance and effectiveness.

RATINGS ON SUSTAINABILITY

A. Sustainability will be understood as the probability of continued long-term outcomes and impacts after the GEF project funding ends. The Terminal evaluation will identify and assess the key conditions or factors that are likely to contribute or undermine the persistence of benefits after the project ends. Some of these factors might be outcomes of the project, i.e. stronger institutional capacities, legal frameworks, socio-economic incentives /or public awareness. Other factors will include contextual circumstances or developments that are not outcomes of the project but that are relevant to the sustainability of outcomes..

Rating system for sustainability sub-criteria

On each of the dimensions of sustainability of the project outcomes will be rated as follows.

Likely (L): There are no risks affecting this dimension of sustainability.

Moderately Likely (ML). There are moderate risks that affect this dimension of sustainability.

Moderately Unlikely (MU): There are significant risks that affect this dimension of sustainability

Unlikely (U): There are severe risks that affect this dimension of sustainability.

According to the GEF Office of Evaluation, all the risk dimensions of sustainability are deemed critical. Therefore, overall rating for sustainability will not be higher than the rating of the dimension with lowest ratings. For example, if a project has an Unlikely rating in any of the dimensions then its overall rating cannot be higher than Unlikely, regardless of whether higher ratings in other dimensions of sustainability produce a higher average.

RATINGS OF PROJECT M&E

Monitoring is a continuing function that uses systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing project with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds. Evaluation is the systematic and objective assessment of an on-going or completed project, its design, implementation and results. Project evaluation may involve the definition of appropriate standards, the examination of performance against those standards, and an assessment of actual and expected results.

The Project monitoring and evaluation system will be rated on 'M&E Design', 'M&E Plan Implementation' and 'Budgeting and Funding for M&E activities' as follows:

- Highly Satisfactory (HS): There were no shortcomings in the project M&E system.
- Satisfactory(S): There were minor shortcomings in the project M&E system.
- Moderately Satisfactory (MS): There were moderate shortcomings in the project M&E system. Moderately Unsatisfactory (MU): There were significant shortcomings in the project M&E system. Unsatisfactory (U): There were major shortcomings in the project M&E system.
- Highly Unsatisfactory (HU): The Project had no M&E system.

"M&E plan implementation" will be considered a critical parameter for the overall assessment of the M&E system. The overall rating for the M&E systems will not be higher than the rating on "M&E plan implementation."

All other ratings will be on the GEF six point scale.

GEF Performance Description		Alternative description on the same scale
HS	= Highly Satisfactory	Excellent
S	= Satisfactory	Well above average
MS	= Moderately Satisfactory	Average
MU	= Moderately Unsatisfactory	Below Average
U	= Unsatisfactory	Poor
HU	= Highly Unsatisfactory	Very poor (Appalling)

Annex III: GEF Minimum Requirements for Monitoring and Evaluation

Minimum Requirement 1: Project Design of M&E[47]

All projects must include a concrete and fully budgeted monitoring and evaluation plan by the time of Work Program entry (full-sized projects) or CEO approval (medium-sized projects). This plan must contain at a minimum:

- SMART (see below) indicators for project implementation, or, if no indicators are identified, an alternative plan for monitoring that will deliver reliable and valid information to management
- SMART indicators for results (outcomes and, if applicable, impacts), and, where appropriate, corporate-level indicators
- A project baseline, with:
  - a description of the problem to address
  - indicator data
  - or, if major baseline indicators are not identified, an alternative plan for addressing this within one year of implementation
- An M&E Plan with identification of reviews and evaluations which will be undertaken, such as mid-term reviews or evaluations of activities
- An organizational setup and budgets for monitoring and evaluation.

Minimum Requirement 2: Application of Project M&E

- Project monitoring and supervision will include implementation of the M&E plan, comprising:
- Use of SMART indicators for implementation (or provision of a reasonable explanation if not used)
- Use of SMART indicators for results (or provision of a reasonable explanation if not used)
- Fully established baseline for the project and data compiled to review progress
- Evaluations are undertaken as planned
- Operational organizational setup for M&E and budgets spent as planned.

SMART INDICATORS GEF projects and programs should monitor using relevant performance indicators. The monitoring system should be "SMART":

[47] http://gefweb.org/MonitoringandEvaluation/MEPoliciesProcedures/MEPTools/meptstandards.html

1. **Specific**: The system captures the essence of the desired result by clearly and directly relating to achieving an objective, and only that objective.

2. **Measurable:** The monitoring system and its indicators are unambiguously specified so that all parties agree on what the system covers and there are practical ways to measure the indicators and results.

3. **Achievable and Attributable:** The system identifies what changes are anticipated as a result of the intervention and whether the result(s) are realistic. Attribution requires that changes in the targeted developmental issue can be linked to the intervention.

4. **Relevant and Realistic:** The system establishes levels of performance that are likely to be achieved in a practical manner, and that reflect the expectations of stakeholders.

5. **Time-bound, Timely, Trackable, and Targeted:** The system allows progress to be tracked in a cost-effective manner at desired frequency for a set period, with clear identification of the particular stakeholder group to be impacted by the project or program.

Annex IV: Contact list for all Project main Stakeholders

Organization	Name + responsibility	Phone number	E-mail address
UNEP	Ms. Daya Bragante Task Manager	Tel: +254 20 762 3860	daya.bragante@unep.org
	Ms. Sandeep Bhambra FMO	Tel: +254 20 7623347	sandeep.bhambra@unep.org
UN-HABITAT	Mr. Alain Grimard SHSO	Tel: +254 20 762 4717	alain.grimard@unhabitat.org
	Mr. Mathias Spaliviero Project Manager (Mozambique)	Tel: +258 21 481493 Cell: +258 82 7042490	spaliviero@teledata.mz
Mozambique Ministry for Coordination of Environmental Affairs National Directorate of Territorial Planning	Mr. Arlindo Ddgedge National Director MICOA	Tel: +258 21 469210	arlindo_dgedge@yahoo.com.br
	Contact Person: Ms. Manuela Muianga Project Officer MICOA	Tel: +258 21 469210 Cell: +258 82 3294440	nela54@yahoo.com
South Africa National Disaster Management Centre	Mr. Lance Williams Executive Manager National Disaster Management Centre	Tel: +27 12 334 0727	cd.dm@ndmc.pwv.gov.za
	Contact Person: Mr. Leo Van den Berg Department of Water Affairs and Forestry	Tel: +27 12 336 7509	FBB@dwaf.gov.za
	Pinky Vilakazi UN-HABITAT Programme Manager UN House Level 5, Metro Park Building, 351 Schoeman Str. PO Box , Pretoria, Gauteng Province, South Africa	Tel: +27123548152 Fax: +27123548058 Mobile: +27 824585167	E-mail: pinky.vilakazi@undp.org
Zimbabwe Ministry of Environment and Tourism Environmental Management Agency	Ms. D.M. Chasi Director of the Environmental Management Agency Ministry of Environment and Tourism	Tel: +263 4 705661/3	zpn143@mweb.co.zw
	Contact Person: Dr. Neil M. Zhou Project Manager	Tel: + 263 4 705661/3 Cell: +263 11882861	zhouneil@yahoo.com
	Peter Mutavati UN-HABITAT Programme Manager Takura House, 9th Floor 67-69 Kwame Nkrumah Ave P.O. Box 4775 Harare, Zimbabwe	Tel:+2634 792681 Fax:+2634 728696 Mobile: +263 912 227 464	peter.mutavati@undp.org
Botswana	Mr. Othusise Katai Chief Hydrologist	Tel: 267 3 959743	okatai@gov.bw

Ministry of Minerals, Energy and Water Affairs Department of Water Affairs	Contact Person: Ms. Michelle Rapotsanyane Project Manager	Tel: +267 3 607335/7338	mrapotsanyane@gov.bw

Annex V: List of Interviewees

Name	Position/Organisation
UNHABITAT	
Mathias Spalivero	Project coordinator
UNEP	
Daya Bragante	Task Manager
Botswana	
Michelle Rapotsanyane	Hydrology Department Department of Water Affairs
Mpho	National Disaster Management Office
Mozambique	
Mr. Aurelio	Community leader, Maniquenique community
Mr. Luis Buchir	Environmental Technician MICOA
Mr. Hipolito Cardoso	Forecaster Department of Meteorology
Mr. Arlindo Dgedge	National Director, Territorial Planning MICOA
Ms. Virginia Malaulene	Rechnician, INGC Gaza Province
Ms. Manuela Muianga	National Project Coordinator Territorial Planning Department, MICOA
Mr. Manuel Alfonso Maxlhaieie	INGC Gaza Province
Mr. Claudio de Olveira	MICOA Environmental promotion officer Provincial Environmental Directorate, Gaza Province
Mr. Delario Sengo	Limpopo River Management Unit, DNA
Mr. Zacharia Sosito	District Administrator Chibuto district
Mr. Manuel Jorge Tivane	MICOA Provincial Environmental Directorate, Gaza Province
South Africa	
Mr. Leo van den Berg	DWAF
Mr. Goodman Chiloane	National Disaster Management Center
Mr. Brink du Plessis	DWAF
Mr. Eugene Poolman	South Africa Weather Services
Mr. Swiggers	DWAF
Mr. Good	

Zimbabwe	
Mr. Lameck Betera	Department of Civil Protection
Mr. Elisha Madamombe	Data and Research Unit ZINWA
Mr. Masera	Education Department
Mr. Peter Moyo	Assistant District Administrator, Beitbridge District
Mr. Muchena	Health Department, Beitbridge District
Mr. Simon Mulemga	District Administrator Beitbridge
Dr. Amon Murwira	Senior Lecturer, Department of Geography University of Zimbabwe
Mr. Peter Mutavati	Country Program Manager; National Project Coordinator UN-HABITAT
Ms. Alleta Nenguke	Ecologist, EMA
Mr. B. Noko	EMA, Beitbridge District
Mr. Singo	Beitbridge Rural District Council
Chikwarakwara Community (group meeting with 5 men and 2 women)	VIDCO Chairman, 2 Village Heads, Irrigation Committee Chairperson, Irrigation Committee Treasurer, Irrigation Committee Secretary, School Headmaster

Interviewees contacted by email

Name	**Position/Organisation**
Mozambique	
Mr. Casimiro Abreu	Deputy Director National Institute for Disaster Management
SADC WSCU	
Mr. Luis de Almeida	SADC WSCU
Zimbabwe	
Mrs. M. Chasi	Director General Environmental Management Authority

Annex VI: Priority interventions at Chilaulene, Maniquenique, and Chikwarakwara

This Annex is available as a separate document in the report version submitted by email.

Annex VII: Documents Reviewed

1. Project annual progress reports
   - PIR 1 July 2006 to 30 June 2007

2. Project documents
   - Project document
   - Project budget (2204)

3. Half yearly progress reports
   - 28 February 2005
   - 31 August 2005
   - 31 December 2005
   - 30 June 2006
   - 31 December 2006
   -

4. Project Reports
   - Sub-regional workshops proceedings (including presentations)
   - National baseline reports (Botswana, Mozambique, South Africa, and Zimbabwe) - Legal, Policy and Institutional Framework for Sustainable Land Use Planning, Land Use Management and Disaster Management
   - Sub-regional baseline report: Legal, Policy and Institutional Framework for Sustainable Land Use Planning, Land Use Management and disaster management
   - Mapping and Spatial Analysis results
   - Participatory Land Use and Contingency Planning in the Limpopo River Basin (Botswana, Mozambique, South Africa, and Zimbabwe components)
   - Implementation of priority interventions at community level
   - Guidelines for Participatory Local Development Planning
   - The river basin game
   - Capacity Building at the Local Level: Summary of Activities in the Four Riparian Countries
   - Legal and Policy Recommendations for Promoting Integrated Flood Management in the Limpopo River Basin.
   - Improving Inter-Country Cooperation for Effective Flood Mitigation in the Limpopo Basin - Sub-Regional Workshop Report, St. George Hotel, Pretoria, 6-7 June 2006. UN
   - Improving Inter-Country Flood Forecasting and Early Warning in the Limpopo Basin - Sub-Regional Training Report, Boskop Training Centre, Potchefstroom, 11-15 September 2006.
   - Limpopo Basin Strategic Plan for Reducing Vulnerability to Floods and Droughts. Draft for Discussion with Riparian Governments.

5. SADC Water Policy, 2006.