

Pre-Project Visit
Project Title: Mangrove restoration and livelihood support through
community participation in Mozambique
Technical Report – TG Andrew, February 2020

Introduction:

The Nairobi Convention Secretariat (NCS) undertook a pre-project visit from 15 to 16 January 2020 to meet with project proponents, partners, and communities to gain first-hand information about the problem that the project intends to address, mechanisms and approaches to be used, how the identified issues are associated with the livelihoods of beneficiaries, and what benefits the project will bring them. The NCS conducted a “due diligence” to ensure proponents have and will consider community sensitivities, potential stumbling blocks, and leadership/ownership of the project. This serves as a “baseline” of the situation at the start of the project to which comparison can be made at the project’s conclusion. In addition, visuals/interviews (of both the site and communities), were captured for storytelling and communications purposes.

From a technical perspective, the visit entailed the following:

1. Assessing institutional preparedness for project implementation
2. Meeting with key partners indicated in the proposal
3. Discussions around project implementation and coordination arrangements
4. Potential challenges and mitigating actions during implementation

A set of pre-determined questions were developed as a tool to guide discussions in the field and to provide the information needed to address these four aspects. This tool will be used in all demonstration project visits to allow for a standardized approach. Stakeholders were engaged during the visit to the field site at the village of Mahielene near the mouth of the Limpopo Estuary which was hosted by Mr Henriques Balidy, technician from the National Agency for Environmental Quality Control (AQUA), Ms. Jacinta Laissonne, AQUA Delegate in Gaza province, (Lead institution) and Dr Celia Macamo from the Department of Biological Sciences, University of Eduardo Mondlane (UEM). The team was accompanied by representatives from the Ministry of Land and Environment (MITA) and the local community.

The visit entailed travelling by vehicle from Maputo to Xai-Xai and Mahielene, observation of ongoing mangrove restoration efforts, inspection of areas proposed for rehabilitation, and discussions with project partners on key elements of the project. The team was accommodated overnight near Xai-Xai.

Assessment:

1. Institutional preparedness for project implementation

DPAQUA, (and its predecessors) which is a structure within MITA, and its representative Mr Henriques Balidy, have been working with the Mahielene community since 2009 and have had significant successes in hydrological restoration of mangroves. As such they have a very good understanding of the requirements of this project at a local level. UEM brings academic research experience on mangroves and mangrove restoration to the team from Mozambique and elsewhere in the western Indian Ocean region. Together with the existing Natural Resources Committees in

the community and relevant national government structures (who are supportive of this project), the lead institutions will be able to constitute an effective structure for project implementation. Further, the government has made a commitment to assist this community with mangrove restoration after the cyclone in 2000 destroyed more than 50% of trees in the area. These efforts also contribute to Mozambique's voluntary commitments made at the UN Oceans Conference in 2017 where it was pledged that 5 000ha of mangrove habitat would be restored by 2023.



Figure 1. Successful hydrological restoration after 10 years. The remains of the original canal dug to allow water to flood an area where excessive siltation during the 2000 flood had destroyed mangroves can be seen between the trees.

2. Engagement with key partners provided in the proposal

Some of the key partners were met in order to discuss the project and to ensure that they were aware and supportive of the proposed activities.

National Institute of Fisheries Research (IIP) – IIP falls within the Ministry of Sea, Inland Waters and Fisheries (MIMAIP) and has some overlapping mandates with MTA. IIP does not have a provincial office in Xai-Xai but is present in the Province and is supported from the National office in Maputo. While IIP were not represented on the field trip, their mandate for research to support the management of mangroves and fisheries will require their involvement in the project, and efforts need to be made to ensure they are on board from the beginning. The project proponents recognized this and undertook to follow up. However the Provincial Directorate of Fisheries has been part of the previous phases of the restoration initiative in Mahielane, therefore no major challenges are expected in engaging them for this new phase.

Natural Resources Management Committees of Zimilene and Zongoene Sede – Members of these committees were met on site and appeared well experienced and organized in terms of mangrove restoration work. These committees have worked with partners in the past to develop a substantial nursery for different species of mangroves and have been involved in replanting and

hydrological restoration activities. They welcomed the demo-project and gave their commitment to continue to be actively engaged.



Figure 2. Members of the local Natural Resources Management Committees welcomed the team to the project site.



Figure 3. The established mangrove tree nursery near the project site.

Hanya N'tsee Association – Local CBO – This CBO is earmarked to assist with community mobilization in Mahielene, and continue to build on the work that they have already undertaken in this community.

UDEBA – This organization was not represented on the field trip but it has been proposed that they will play a role in outreach and environmental education.

Xai-Xai Municipality – The Municipality was not present on the field visit. However, it will be important to include them in any management structure set up as they will have a role to play in sustainability of project interventions.

Private Sector – The project proponents were not certain of how the private sector could become involved. However, during the field visit it was stated that fisheries catches were improving in the estuary (either as a natural recovery after the disruptions of the cyclone in 2000, or as a result of the recovery of mangroves through assisted hydrological restoration) and this could lead to greater interest in the fisheries-associated private sector (transport, marketing businesses) to become involved in the project.

3. Project implementation and coordination arrangements

The two main partners in this project (UEM and DPAQUA) intend to work together to bring their respective strengths to the project team. DPAQUA's practical experience and extended presence in the project area will allow local level activities to be effectively implemented. This practical experience will be augmented by the research expertise from UEM. Hydrological restoration techniques have been found to be extremely successful in the Limpopo estuary in comparison with other areas in Mozambique and the WIO region. The reasons for this are unclear, and this demo-project intends to elucidate the key success factors so that these can be replicated elsewhere in the region. UEM will play a pivotal role in identifying and sharing key success factors from the Limpopo estuary.

A multi-stakeholder Steering Committee consisting of key stakeholders is planned to coordinate the project. There appears to already be a good working relationship between Provincial authorities and the local community, as well as with UEM and national government structures. This bodes well for effective coordination and implementation. However, efforts to include those partners mentioned above, who were not on the field trip, need to be made. Activities on the ground will largely be undertaken by community members. Due to ongoing involvement in restoration activities, the community appears to be knowledgeable and motivated to continue the work that has been initiated.

An aspect that will need to be considered in the project is the inclusion of the local fisheries sector. Many community members that make use of the mangrove habitat are also fishers who use the estuary for fisheries purposes. An understanding of how the fishery operates and its importance to local livelihoods will be essential for the development of the intended local management plans for the estuary. Local CCPs need to be included as well as experts from IIP, who have a dual mandate to work on mangroves and fisheries. This is not explicitly outlined in the project proposal but efforts to include this component need to be explored. Partnerships with other fisheries-directed projects such as the joint Nairobi Convention/SWIOFC project could contribute to this component by making resources and expertise available.



Figure 4. The entrance (from the estuary) to a hand-dug channel leading water to barren areas identified for hydrological restoration.



Figure 5. The inland end of the above channel leading from the estuary. This channel will fill with water at high tide encouraging natural recovery of mangroves in this barren area that was previously covered in mangroves (prior to the 2000 floods).



Figure 6. Planting of mangroves from the community nursery is used to supplement hydrological restoration methodologies.

4. Potential challenges and mitigating actions during implementation

The use of hydrological restoration methodologies is a slow process, with limited impact expected to be observed within the 2-year project period. However, the potential exists for relatively large areas to be restored if the approach is successful. Fortunately, a history of this approach exists at the project site, so potential benefits can be observed. Experience will mitigate some of the potential risks associated with rehabilitation at this site.

As with all projects in dynamic habitats, there is a risk of disruption from natural events. However, even if restoration efforts are hindered, the production of a management plan that is co-produced with the community and adopted by them for the area will be a positive output that can be used into the future and provide an example of best practice to other areas.

It will be important to acknowledge and embrace the fact that the mangrove-related activities in the project area are only part of a suite of livelihood activities that the local community is engaged in. In reality, multiple activities, including agriculture and fishing, contribute to the survival of local inhabitants. This aspect will need to be included in any management plan developed. As such, it will be important for the project proponents to obtain a sound understanding of the interrelatedness of the various activities at a local level.



Figure 7. A mature mangrove stand that survived the 2000 cyclone. Hydrological restoration methods are being used to assist damaged areas to recover to this state.

5. Summary of technical assessment

This demo-project will build on over 10 years of hydrological restoration experience by the communities at the project site. Good practices have been developed and relative success has been achieved to date. The main task will be to develop a greater understanding of the key success factors that have led to the current status so that these can be harnessed elsewhere. The Limpopo estuary is one of the few sites in the region where this type of restoration has been successfully implemented so the project will provide important lessons for the region as a whole. The partnership between the two lead institutions (UEM and DP Aqua) is considered appropriate and should allow these lessons to be effectively documented.

Community structures in the area appear to be strong and good support has been provided by local, provincial and national government, who view restoration in this area as a priority. As long as partners stated in the project proposal are meaningfully included, the project coordination and implementation mechanisms have the potential of effectively delivering the outputs stated for this project.

The importance and links of the local estuarine fishery to the mangrove habitat need to be recognized and partnerships included during project implementation that will allow further understanding of interconnectivity in the area to be developed. In this regard, inclusion of IIP as a meaningful partner, and closer collaboration between the MITA and MIMAIP Ministries is recommended. The management plan that will be co-developed with communities will need to address the interconnectivity between different livelihood activities in the area.

List of Stakeholders engaged with during the visit

Name	Designation and affiliation	Date met
Prof Salomao Bandeira	Associate Professor, Department of Biological Sciences, UEM	15 – 16 January 2020
Dr. Celia Macamo	Lecturer, Department of Biological Sciences, UEM	15 – 16 January 2020
Mr. Henriques Balidy	DPAQUA	15 – 16 January 2020
Ms Jacinta Laissonne	DPAQUA	15 – 16 January 2020
Mr. Alexandre Bartolomeu	MITA	15 – 16 January 2020
Ms. Sidônia Muhorro	MITA	15 – 16 January 2020
Mr. Erudito Malate	FAO-SWIOFC, Mozambique National Officer	15 – 16 January 2020
Mr. Agostinho Nhanzimo	Chair, Natural Resources Management Committee	15 January 2020
Mr. Carlos Macave	Member, Natural Resources Management Committee	15 January 2020
Mr. Eduardo Zimila	Chair, Hanya N'tsee (local CBO)	15 January 2020