

Darwin Initiative/Darwin Plus Projects Half Year Report (due 31st October 2020)

Project reference	25-024
Project title	Securing marine biodiversity and fishers' income through sustainable fisheries, Mozambique
Country(ies)/territory(ies)	Mozambique
Lead organisation	Zoological Society of London - ZSL
Partner(s)	Associação do Meio Ambiente (AMA), Coastal Oceans Research and Development in the Indian Ocean (CORDIO), Universidade Nova de Lisboa, Faculdade de Ciências Sociais e Humanas (NOVA FCSH), Universidade Lúrio (UniLúrio), University of Aveiro, Department of Biology & CESAM (Centro de Estudos do Ambiente e do Mar), Wildlife Conservation Society (WCS)
Project leader	Jeremy Huet
Report date and number (e.g. HYR3)	31 st October 2020, HYR2
Project website/blog/social media	Webpage: https://www.zsl.org/conservation/regions/africa/our-sea-our-life Facebook: @ZSLMarineAndFreshwaterConservation Twitter: @OurSeaOurLife

1. Outline progress over the last 6 months (April – Sept) against the agreed project implementation timetable (if your project has started less than 6 months ago, please report on the period since start up to end September).

Output 1: Two multi-zonation LMMAs established in Bandar and Mecufi by end of Yr1 with co-management agreements in place, each incorporating at least 200ha of no-take zones covering at least 2 critical habitats in each village (from seagrass, mangrove and coral), 50ha of buffer zones for preferential user rights, one temporary closure area, and mangrove rehabilitation area.

We assessed the ecological suitability through an underwater survey of two temporary-closed areas and two permanent areas, for which we have GPS points, that include coral reef and seagrass habitats. This assessment validates the marine areas to be managed as agreed through the community-based decision-making process. As a result, the buoys will be set up before December.

A member of the existing mangrove nursery group based in Mecufi participated in a training conducted in Bandar in order to present their experience to members of a new mangrove nursery group compounded of 6 men and 14 women. We also organised a workshop with Mecufi's group members to discuss mechanisms to sustain mangrove planting. Shrimp fattening, which this group is already experienced in, was agreed to be a potential livelihood to sustain the mangrove planting. Basic tools (spade, shovel) were given to build the tanks to the mangrove nursery group based in Mecufi.

CCP members and local authorities (Fisheries authorities, Police) of the two focal areas met to discuss rules and regulations of the two LMMAs and how to enforce them. Special attention

was given to the use of a boat to enforce the two LMMAs, which the local authorities said they would have ready in the coming months. It was highlighted that local health authorities should be involved in enforcement activities related to prohibited mosquito net fishing.

The two CCP offices are built. Beach patrols and outreach campaigns by CCPs started to change fishing behaviours such as beach seine netting and mosquito net fishing. In agreement between CCP members and local authorities, several mosquito nets were confiscated during beach patrols and incinerated.

We trained 12 Village Agents to lead the monitoring of the impact of VSLAs on wellbeing, for which simple indicators were developed, and compare with households that members do not belong to VSLAs. The wellbeing survey is undertaken whenever a VSLA cycle (52 weeks) ends and the comparison with households that members do not belong to VSLAs is made once a year (done in Yr2, to be repeated in Yr3).

CORDIO gave a training on community-based coral reef health underwater survey to Ama, but this has not been done yet as it was contingent on the assessment of the ecological suitability of the LMMAs (see above). If the weather allows, this underwater survey will be done before December. In the meantime, we carried on our simplified CPUE (Catch Per Unit Effort) community-based survey through smartphone application which has added 240 entries since April. We also started a comprehensive CPUE survey in April to compare the results of both methods in the end of Yr3.

Output 2: Integrated Territorial User Rights in Fisheries zones integrated into LMMAs to incorporate sustainable fishing and women-led bivalve aquaculture initiatives in Bandar and Mecufi to incentivise enforcement of LMMA and replace illegal mosquito net fishing for vulnerable female groups.

We analysed the nutritional value of oysters and mussels after using different preservation methods and we found out that dry salting offered the best food biochemical quality (especially regarding sugars and proteins).

Despite the weekly maintenance of the bivalve racks, the molluscs were heavily predated on by crabs or buried in the intertidal sand dunes due to natural movement of sandy habitat. We installed spat collectors to re-initiate the farming of a new cohort of bivalves. In the meantime, we provided support to the aquaculture groups (respectively compounded of 15 and 8 women) to grow vegetables, as an income-generating activity, to await the re-initiation of bivalve farming that can take several months. It is a total area of 2ha that is farmed to grow lettuce, cabbage, tomatoes and chilli.

Output 3: Equitable governance and management of marine resources and sustainable bivalve aquaculture ensured through advanced representation and participation of women in CCPs and LMMA management.

Two new VSLAs were formed and trained totalling 12 VSLAs of which more than 80% of members are women. Each group has saved, which provide financial services especially to women that wish to invest in small-scale businesses such as bivalve aquaculture, horticulture, shrimp fattening, bread oven or tea rooms as an offset to illegal mosquito net fishing.

Output 4: Sustainable financing mechanisms (business models, functional VSLAs, legalizing LMMAs contributing to improve access to national and international funds to sustain management costs) established for Bandar and Mecufi LMMAs fostering multi-use zonation, sustainable bivalve aquaculture and gender equity

On October 8th, 2020, the government of Mozambique published in the Official Bulletin a landmark regulation (REPMAR) empowering community-based fisheries management. This is the result of our work in collaboration with WCS as we organised a meeting in July 2019 with government authorities to advocate the alignment of the legalisation of marine community reserves to the terrestrial ones using procedures described in the existing Conservation Law. We will use this regulation (REPMAR) to legalize the two LMMAs of Bandar and Mecufi in the remaining of Yr3.

With the support of Darwin Initiative under 20-023 between 2013 and 2017, we have been developing a toolkit guide for scaling up LMMAs in Mozambique to contribute to reduction of

poverty and sustaining the protection of marine biodiversity. The 'Toolkit for LMMA Establishment: A case study of Our Sea Our Life's approach to community-based marine conservation in northern Mozambique' was launched on the ZSL website on the 1st October 2020. This toolkit is a key document to implement, sustain and raise the profile of LMMAs in Mozambique.

We showcased the project through the innovation pitch "Our Sea Our Life: Where Environmental Conservation Meets Savings Groups" at a competition, the *SG2020 Innovation Challenge* organised by the SEEP Network on driving inclusion and resilience for Savings Groups. We won the competition which increased the visibility of the project.

During this period, the OSOL team also presented at the 11th virtual policy forum held by FCDO Mozambique that focused on "Building sustainable livelihoods and protecting the ocean in Mozambique".

2a. Give details of any notable problems or unexpected developments/lessons learnt that the project has encountered over the last 6 months (for Covid-19 specific delays/problems, please use 2b). Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.

CCP members and local authorities (Fisheries authorities, Police) of the two focal areas met to discuss rules and regulations of the two LMMAs and how to enforce them. Special attention was given to the use of a boat to enforce the two LMMAs, which the local authorities said they would have ready in the coming months. As a result, we will not do training on boat patrol handling as the Fisheries authorities and the Police will be in charge of it that they are already trained for. Instead, we will disseminate the rules and regulations and fines among fishing communities and stakeholders.

Despite the weekly maintenance of the bivalve racks, the molluscs were heavily predated on by crabs or buried in the intertidal sand dunes due to natural movement of sandy habitat. We installed spat collectors to re-initiate the farming of a new cohort of bivalves. In the meantime, we provided support to the aquaculture groups (respectively compounded of 15 and 8 women) to grow vegetables, as an income-generating activity, to await the re-initiation of bivalve farming that can take several months. It is a total area of 2ha that is farmed to grow lettuce, cabbage, tomatoes and chilli. We will submit a change request to the logframe to factor in this unexpected development under Output 2 for Yr3.

Small-scale businesses such as bivalve aquaculture, horticulture, shrimp fattening, bread oven or tea rooms as an offset to illegal mosquito net fishing did not generate income yet that would incentivise VSLA members to contribute to the operating costs of the LMMAs through Environment funds. However, we trained 12 Village Agents (community members belonging to VSLA and CCP) that are in charge of advocating for the sustaining of LMMA operations within the communities.

2b. Please outline any specific issues which your project has encountered as a result of Covid-19. Where you have adapted your project activities in response to the pandemic, please briefly outline how you have done so here. Explain what residual impact there may be on your project and whether the changes will affect the budget and timetable of project activities.

In response to COVID pandemic, we had to slow down the pace of activities for safety reasons as we reduced the number of community members attending activities at the same time, we continued engaging with all groups to maintain the same level of social inclusion. As a result, we doubled the length of our field missions to ensure everyone is met in safe conditions (reduced number of meeting participants, using masks and hand sanitizer). Some VSLA members spontaneously used their savings to invest in protection material for their households.

We trained 12 Village Agents to lead the monitoring of the impact of VSLAs in wellbeing which simplified and sped up the data collection. It reduced the risk of contamination between project staff and community members by limiting contacts.

The operation start date of permanent and temporary-closed areas was delayed due to the delivery of specific snorkelling material and GPS' that suffered extra safety measures endured by international courier companies. As a result, we delayed the assessment of ecological suitability of LMMAs, their GPS mapping, the buoys set up and the opening of temporary-closed areas for selling octopus that will still be undertaken in Yr3.

Until recently, and it will likely be re-established given the second wave of the COVID pandemic, Mozambique authorities introduced a mandatory 2-week quarantine period for all travellers on arrival. We decided that the University of Aveiro (in charge of providing technical support to Ama in bivalve farming) and CORDIO (in charge of providing technical support to Ama in biological monitoring) would not undertake technical missions in-country in this period of this heavy restrictions. The technical support is done remotely as much as possible. Additionally, in order to re-initiate bivalve farming and the support to horticulture (see above in 2.a), we will include this unexpected issue in the change request to be submitted as soon as possible.

2c. Have any of these issues been discussed with LTS International and if so, have changes been made to the original agreement?

Discussed with LTS: Yes/No

Formal change request submitted: Yes/No (not yet)

Received confirmation of change acceptance Yes/No

3a. Do you currently expect to have any significant (e.g. more than £5,000) underspend in your budget for this year?

Yes No Estimated underspend: £0

3b. If yes, then you need to consider your project budget needs carefully. Please remember that any funds agreed for this financial year are only available to the project in this financial year.

If you anticipate a significant underspend because of justifiable changes within the project, please submit a rebudget Change Request as soon as possible. There is no guarantee that Defra will agree a rebudget so please ensure you have enough time to make appropriate changes if necessary. Please DO NOT send these in the same email as your report.

4. Are there any other issues you wish to raise relating to the project or to Darwin's management, monitoring, or financial procedures?

n/a

If you were asked to provide a response to this year's annual report review with your next half year report, please attach your response to this document.

Please note: Any planned modifications to your project schedule/workplan can be discussed in this report but **should also be raised with LTS International through a Change Request. **Please DO NOT send these in the same email.****

Please send your **completed report by email** to Darwin-Projects@ltsi.co.uk. The report should be between 2-3 pages maximum. **Please state your project reference number in the header of your email message e.g. Subject: 25-001 Darwin Half Year Report**