Darwin Initiative
Final Report

*To be completed with reference to the Reporting Guidance Notes for Project Leaders (http://darwin.defra.gov.uk/resources/) it is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)*

Darwin project information

Project reference	20-023
Project title	An integrated approach to enhancing socio-ecological resilience in coastal Mozambique
Host country(ies)	Mozambique
Contract holder institution	Zoological Society of London
Partner institution(s)	Associação do Meio Ambiente (AMA), Bioclimate, Research & Development Ltd. (Bioclimate), Coastal Oceans Research and Development in the Indian Ocean (CORDIO), Faculdade de Ciências Sociais e Humanas - Universidade Nova da Lisboa (FCSH-UNL), Universidade Lúrio (UniLúrio)
Darwin grant value	£327,643
Start/end dates of project	1st August 2013 – 31st March 2017
Project leader's name	Dr Nicholas Hill
Project website/blog/Twitter	Twitter: @OurSeaOurLife @nickaohill, @heatherkoldewey, @JeremyHuet1, @ama_ercilio
Report author(s) and date	Jeremy Huet, Alexandra Donaldson, Dr Heather Koldewey, Dr Nicholas Hill. 31st July 2017 Annexes can be accessed on https://www.dropbox.com/sh/fol8933u9yjs4jm/AADxIw38nWmkyUCiv4Hixqnta?dl=0

1 Project Rationale

The coastal area between Mocímboa da Praia and Rovuma River has some of the highest levels of marine biodiversity in East Africa, shows evidence of resilience to coral bleaching and has suffered less from anthropogenic impacts than other areas regionally. At the same time, its coastal communities are among the poorest in Mozambique, with high dependence on marine resources. Marine biodiversity and livelihoods are threatened by socioeconomic changes caused by growing populations, increasing linkages to markets for marine products, illegal and foreign commercial fishing, luxury tourism developments that are often poorly integrated with local communities, and most recently the exploitation and refining of natural gas. Little work seeking to integrate conservation and development is focused in this area, which contrasts starkly with

the Quirimbas National Park area, 100km further south. Mozambique's legislation supports co-management but currently there is little capacity for implementing it. The project addresses the key challenges of building local capacity and resources for co-management, creating incentives for conservation and diversifying livelihoods. They are important for local communities, the Mozambican government and conservation organisations; and were identified by discussions between all partners informed by their extensive experience of working in the region, and with local communities and government. The broader project is piloting an integrated approach to enhancing socio-ecological resilience in six sites (Figure 1), of which Lalane and Nsangue Ponta are specifically attributable to the Darwin Initiative project.

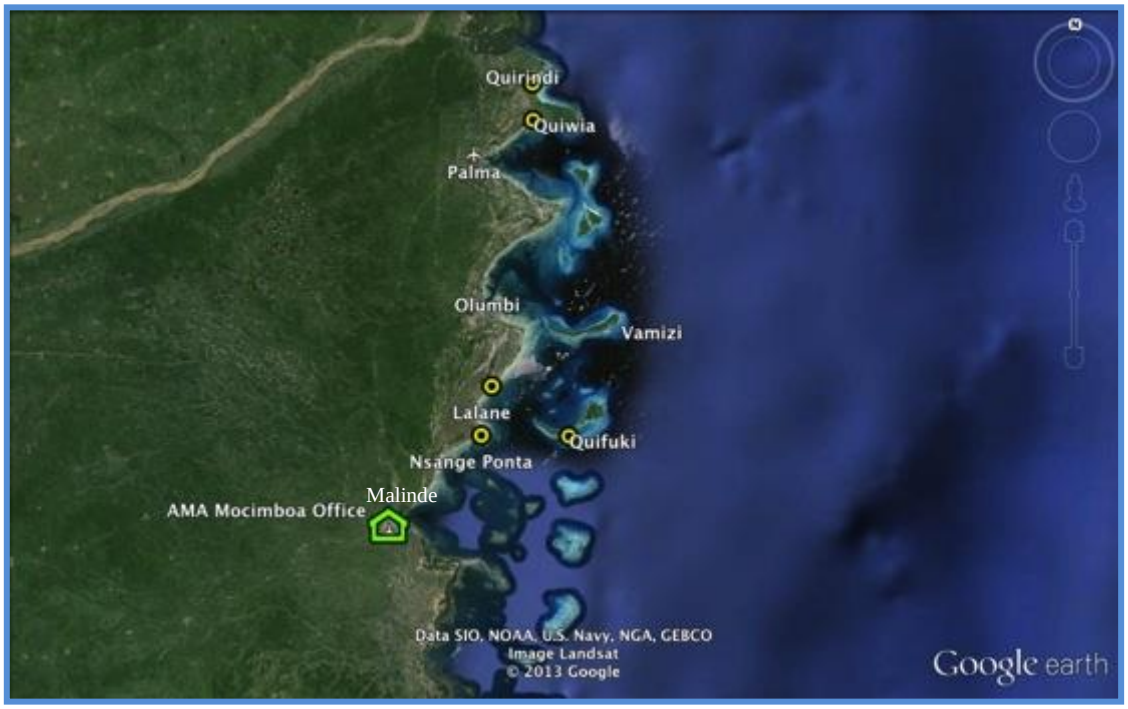

Figure 1: Map of project sites within the broader project. The two sites specifically attributable to Darwin are Lalane and Nsangue Ponta. Malinde, Quifuke, Quirinde and Quiwia are part of the broader action that Darwin is co-financing with EU and Fondation Ensemble.

2 Project Partnerships

The Our Sea Our Life (OSOL) project is a collaborative initiative of six partners and that evolved to seven partners since Fondation Ensemble match funded the project from October 2015 until December 2018. Project partners have met six to eight times a year either in Mocimboa da Praia, Pemba, Maputo, South Africa, Kenya or in the UK for work planning and supervision purposes but also to attend conferences, workshops and to participate in field visits. This collaborative dynamic was designed to support and build the capacity of AMA (Associação do Meio Ambiente) as implementation partner and to provide strategic direction. The project partners have come to develop professional and friendly relationships over the life of the project and have provided relevant technical support to the AMA team.

The project also developed strong government relationships: The Provincial Direction of Fisheries (DPP) and AMA were able to develop and sign a Memorandum of Understanding (MoU) in March 2017 recognising the approach that the project has adopted to co-management (see the section on project achievements) and committing to sustain the Locally-Managed Marine Areas (LMMAs) in Cabo Delgado.

The main challenge we have to highlight here is the maintenance of the quality of communication between seven organisations across four countries (Mozambique, Kenya, Portugal, UK). The north of Mozambique is beset with power issues, with the electricity supply to the whole of Cabo Delgado frequently being disrupted for extended periods of time (one to two months). Internet remains unreliable. As a result, the regular face to face meetings were extremely important. The ZSL project coordinator travelled three to four times a year (average

duration of one month per trip) to Mozambique to ensure the continuity of the work in the field and maintain effective communication between the project components. The bad weather during the rainy season (from January to May) exacerbated communications issues. Rains frequently washed away key bridges that connect the office and field sites, rendering travel to the sites impossible at times during the rainy period. The strategy of appointing extension workers to each of the project sites and the purchase of a project boat and two vehicles (one each side of the at-risk bridges) significantly improved the situation, but there were frequently periods of time where communications were challenged when neither land or boat travel was feasible, and the power or mobile signal was interrupted. The rains also created significant health issues, with malaria and dysentery outbreaks both common problems during the rainy season. The project provided improved sanitation, first aid equipment and bed-nets to help protect all staff, and had a strong emergency evacuation procedure.

There have also been significant challenges in accounting and financial reporting in Mozambique due to a combination of communications issues above and the economic situation in the country. The Mozambican economic situation changed dramatically over the project period, with major changes in inflation rates. The low capacity of local bank agencies in Pemba meant that international cash transfers were frequently blocked or rejected, often with cash being held up by banks for weeks or months at a time, creating challenges for cash flow in AMA. The Mozambican bank was declared insolvent by the end of 2016, and desite being subsequently guaranteed by the Mozambican government, we have had to constantly review and build our financial systems to reduce risk and mitigate such issues to avoid situations where AMA were unable to pay project staff for extended periods. As a result, we have had to change the bank account twice during the project period which takes a significant investment of time in Mozambique.

In the end, OSOL's strong collaborative approach that involves organisations with a history of working in challenging logistical contexts and strong technical and practical knowledge, including experiences gained from other Darwin projects, has supported the success of the project. However, effective coordination and maintenance of a project that involves so many partners itself represents a real challenge, which we overcame through our experience of working together, and is contingent on clear definition of roles and responsibilities. All partners contributed to this final report in specific sections and through production of supporting documents annexed to this report.

3 Project Achievements

The OSOL project started in August 2013 and extends until December 2018 with match funding from the EU and Fondation Ensemble. Darwin Initiative was the first donor for the first 3 years of implementation focusing in two pilot villages (Lalane and Nsangue Ponta). The project suffered a series of setbacks owing to logistical, environmental, health, political and economic challenges, resulting in a requested no-cost extension being approved in 2015. The far north of Cabo Delgado, Mozambique is by its nature an extremely challenging place to work. Despite the challenges, the project has made some major achievements across the intended outputs and outcomes. The achievements in the Darwin villages has and continues to serve as a strong basis for guiding the work in the four remaining villages of the broader EU-funded project, which will consolidate and sustain the impact of the Darwin project in these sites. "The OSOL project is – so far – a very good project producing valuable and highly relevant outputs in a very challenging context. It has got all the conditions to succeed and fulfil most of the original expected results" states the independent consultant in charge of the project mid-term review completed in early 2017 (Annex 7 – all annexes can be found here).

3.1 Outputs

Output 1: CCPs with three user groups and integrating women formally established in two pilot villages and supported to develop and implement co-management plans

Community Fisheries Councils (CCPs) in Lalane and Nsangue Ponta (the two Darwin communities) have had their statutes approved by the District Service of Economic Activities (DSEA) and the Provincial Directorate of Fisheries (DPP). These CCPs have completed the development of co-management plans through participatory planning that involved Village

Savings and Loan Associations (VSLAs) and village focal groups. Although the formal recognition of these co-management plans takes time in Mozambique, which has involved OSOL working with relevant authorities to define the process for formalisation, the CCPs are working with local authorities to implement these co-management plans, which protect 180ha of critical production habitat in "replenishment zones" that are strictly no-take, and 390ha of shallow gleaning areas in temporary closures for improving the income from octopus and bivalve fisheries. Women form part of at least 24% of CCP membership and officials, which is a significant improvement on the norm, but short of our target of 33%. An MoU between AMA and DPP was signed in March 2017 formally recognizing the project approach to co-management and committing to work together to sustain the implementation of these co-management plans.

CCP Statutes

Lalane and Nsangue Ponta have their CCP Statutes approved by DSEA and DPP. They remain with the National Fisheries Authorities for final approval and publishing.

The project established Fisheries Community Councils (CCPs) from scratch in both Lalane and Nsangue Ponta. As part of the CCP approvals process, each CCP must have or be in the process of constructing an office. The CCP can function before the completion of these offices. The project has supported CCP members to construct offices using traditional building practices in both communities. The CCP office is fully completed and operational in Nsangue Ponta (Annex 8), and will be completed next month in Lalane where logistical challenges (poor road conditions and distance to building materials such as poles and stones) hampered the progress of construction (Annex 9). In September 2015 the CCP Statutes were signed by the Institute for the Development of Small-Scale Fisheries (IDPPE). The National Fisheries Administration (ADNAP, to which IDPPE reports) had submitted these to the Ministry of Fisheries in Maputo for formal signing and publishing. However, with the change in government and restructure of fisheries departments the process changed so that the Statutes had to be returned to the District Services for Economic Activities (DSEA) for their additional approval before they could be finally approved and published by the Ministry of Fisheries in Maputo. Unfortunately, the documents were subsequently lost in transmission between Ministry of Fisheries in Maputo, ADNAP and the DSEA, which we were only alerted to early in 2017. This meant we had to redo the entire process. In early March 2017, all documents (including replicates this time!) were signed again at community level, by the DSEA in Palma, and by the DPP in Pemba. DPP have now sent these to the Ministry of Fisheries in Maputo in March 2017, and we await their final approval and publication. DPP and the project continues to apply gentle pressure for the final publication of these Statutes. In the meantime, ADNAP confirmed that the CCPs were able to start developing and implementing co-management plans. CCPs are delegated the authority to manage fishing in their defined fishing areas, which are specified in the Statutes. These areas in effect become Locally Managed Marine Areas (LMMAs), and the CCP's co-management plans detail the management interventions that they will apply within their LMMAs.

Biological and socioeconomic assessments presented to communities and Fisheries Authorities

Biological and socioeconomic assessments of the 2 pilot villages were produced, submitted and discussed with CCPs, DPP and National Fisheries Authorities in a workshop. These discussions improved understanding around the impacts of different management interventions with the specific contexts of the villages. However, they did not increase community-level support for the concept of no-take zones, which were rejected as a concept by the community attendees. Following the workshop, ZSL and AMA trialled a rebrand of the concept using the phrase "replenishment zones", and found that games linked to local knowledge along with this concept drove a massive surge in support. This quickly resulted in the adoption of of "replenishment zones" by Nsangue Ponta and Lalane and incorporation into their proposed co-management plans – the first communities to do so in the OSOL project.

Two key presentations/workshops were organized to present results of the projects biological and socioeconomic assessments, alongside more day-to-day feedback to CCP and VSLA

members through the daily contact between project staff and community members. AMA, UniLurio and CORDIO gave a key presentation in Maputo to the Deputy Director of IIP at National level in May 2016 about the baselines and the mapping. Another key workshop was held in Mocímboa da Praia in March 2016 with community leaders to present and discuss the results of the socioeconomic and biological monitoring and the appropriate strategies for managing fisheries. This workshop raised the awareness of how different co-management approaches could help address their fisheries concerns (Annex 10). The workshop used various interactive tools such as visual presentations, group exercises, videos, plenary sessions and theatre plays. We addressed the potential role of spatial, gear, temporal and effort restrictions to manage fisheries, and developed a series of posters for reinforcing these messages (see Annex 11, 12 & 13). This visual communication is ideal to pass on messages within communities during focus group or Village Savings and Loan Association (VSLA) meetings (Output 3). Interestingly, all of the communities present at the workshop rejected outright the idea of permanent no-take zones, despite presentation by CORDIO of local success stories in Kenya and the biological arguments presented. As a result, ZSL and AMA spearheaded a rebranding of the concept during subsequent stages of the participatory process for developing the co-management plans. We trialled a combination of visual and practical games linked to local ecological knowledge in Lalane and Nsangue Ponta and a change in the terminology from “no-take zones” to “replenishment zones”. The change in terminology was designed to focus the concept on what the measures do for local communities (i.e. replenishing their fish stocks), rather than what community members are not allowed to do (i.e. areas where they are not allowed to fish), and was very closely aligned with their local ecological knowledge and objectives for management. This approach quickly gained traction, and Nsangue Ponta became the first of the OSOL projects to propose a “replenishment zone”, quickly followed by Lalane. The use of a battery powered projector to screen documentaries and short films at night about successful spatial management measures in similar contexts, and particularly those focused on Swahili areas and narrated in Swahili such as “Between a rock and a hard place” which focuses on Kuruwitu in Kenya, was particularly successful in reinforcing the interest in “replenishment zones”. The turn-out for these video sessions was very high (Annex 14) indicating an appetite for this sort of outreach. The videos sparked interesting discussions amongst attendees and built a lot of support for the establishment of replenishment zones, with even itinerant fishers expressing their interest and encouraging CCP members to implement these zones as soon as possible. CCP members facilitated the video screenings, which reinforces the engagement of the CCP, effective sharing of the key messages and enhances community members’ understanding. Additionally, community members in Lalane were apparently motivated out of friendly competition with Nsangue Ponta, and also to ensure that any displaced fishing effort from Nsangue Ponta did not have a detrimental impact on their locally managed marine area (LMMA).

Given the interest of CCP members to understand the impact of their management plans, match funding from Fondation Ensemble and a collaboration with Blue Ventures is enabling OSOL to support community monitoring through an Open Data Kit (ODK) application installed on smartphones. CCP members regularly fill in a fisheries monitoring form on the smartphones and submit the data online (Annex 15). At present, this work has completed the first test phase, so is still being managed by the project extensionists, but the second phase of testing will be implemented by community members direct into the online platform. These platforms enable immediate compilation and simple analysis of data, meaning the communities get quick feedback on their catches and also changes over time, and ensures high data quality and reliability by enforcing data validation rules that reduce errors.

In addition, the mapping of fishing grounds of Lalane and Nsangue Ponta (Annex 16 & 17) including the number of visits by fishers, average CPUE by gear and fishing zones, has provided useful information that has enabled us to compare the management measures proposed by CCPs with areas that are most used by fishers those with highest CPUE. The mapping tool was presented to a workshop co-organised by AMA and Institute of Fisheries Research (IIP, sub-branch of DPP), and attended by the DPP, WWF, Oikos, Biodinamica, UniLurio and the Quirimbas National Park in April 2016 (Annex 18 & 19).

Co-management plans of Nsangue Ponta & Lalane

Two co-management plans established by CCPs through participatory planning that involved VSLAs and village focus groups. These co-management plans protect 180ha of critical production habitat in "replenishment zones" that are strictly no-take, and cover 390ha of shallow gleaning areas in temporary closures for improving the income from octopus and bivalve fisheries.

CCP members (unfortunately neither from the two pilot villages due to delays in passport processes) went to Madagascar (Andavadoake) in February 2015 to learn about successful octopus management projects implemented by Blue Ventures and the Velondriake Association (Annex 21). They had the opportunity to understand the details of octopus management. A video has been produced on the exchange visit, which has been shared within focal communities as well as internationally (click here), which has helped to generate support for the concept of temporary closed areas for octopus.

Following the trip, the CCP of Quiwia (site of the broader EU-funded project) agreed to the first temporary closed area for octopus (Annex 23) in August 2015. The zone was closed for six months and then opened on 8th March 2016. The opening was a success, with fishers bringing back 15-27 kg of octopus each, compared to normal daily catches of 1-1.5 kg (https://www.zsl.org/blogs/conservation/our-sea-our-life-re-opening-of-the-first-community-managed-temporary-reserve-for). As a result of this success the community decided to close the zone again after a couple of weeks to repeat the successful experience. While targeting octopus, the community agreed to close all fishing in the temporary closure zone protecting all biodiversity within this area during that period in order to simplify enforcement.

Exchange visits between Quiwia and Nsangue Ponta inspired this Darwin site to replicate the model, despite octopus being a far less important resource in Nsangue Ponta. An important lesson we learned from Quiwia is that the temporary closures for octopus, despite our initial assumptions, do not inspire or catalyse interest in broader management measures such as no-take zones. As a result, Quiwia remains one of the last communities to adopt the concept of replenishment zones (see above section on biological and socioeconomic assessments presented to communities). Temporary closures for octopus do not act as a catalyst for permanent closures because there are inevitably challenges with implementation. Within a week of re-opening the temporary zone, the local fishers depleted the octopus stock in Quiwia. The area needed to be closed again to allow the stock to recover, and on the second and third occasion the results were less interesting for communities. As a result, they require a lot of focused work to make them properly functional, and the community is primarily focused on improving them before they can move on to other interventions. Whilst the CCP and community may be happy to move onto permanent closures once the temporary closures are operating properly, the delay could be many years, allowing continued unsustainable exploitation to further deteriorate the resources. Therefore they are not a sustainable approach to catalyse conservation action within a meaningful timeframe or in response to pressing threats. Whilst it is important for the implementing agency to build trust within communities, this can be done more effectively, reliably and quickly through VSLAs (see Output 3). Furthermore, we noticed that the temporary closures do not prevent habitat degradation, particularly as there is a high concentration of trampling during the opening period. However, whilst temporary closures do not contribute to the sustainability or recovery of the target resources (as they do not protect the brood-stock because octopus are harvested at a larger size before brooding), they do act as a way to increase economic returns from the available resource (by waiting to catch the octopus at a larger size) and provide opportunities for lump sums of cash (by concentrating income into less frequent events – so called "lumpy" income), which are opportunities that are often missing within coastal communities of northern Mozambique. In this way, temporary closures for octopus actually play a similar functional and economic role to VSLAs (provided through lending and share out), and are very important from a socioeconomic perspective (see Output 3).

We needed to trial a different approach in Nsangue Ponta and Lalane to achieve the conservation objectives of the project, whilst also making the most of income-generating opportunities from

the temporary closures for the communities. We developed a comprehensive participatory decision making process, starting with identifying threats, determining objectives and identifying solutions. To develop the decision making process we tapped into the extensive expertise of Darwin team members in ZSL-Philippines who have a long and rich history in community-based management. Due to the lack of experience in participatory management in Mozambique, AMA felt it would be most useful to produce specific step-by-step guidance for implementing participatory decision making. OSOL are currently in the process of refining a manual that draws on the experiences of implementing this process in Lalane and Nsangue Ponta, which will be finalised following replication in other OSOL sites by the end of 2017 as part of the broader OSOL project (see early draft in Annex 22). Following the implementation of this participatory decision-making process, together with the rebranding and communications mentioned in above in the section on presenting biological and socioeconomic assessments, Nsangue Ponta identified areas for a temporary closure and a replenishment zone (Annex 24). The concept of replenishing dwindling populations of iteroparous fish species (e.g. groupers and snappers) through protecting big brooders who could contribute more to the next generation, resulting eventually in spill-over, was vital in the decision-making process of the population of Nsangue Ponta. Additionally, the CCP and community members worked together to identify people that may be most affected through the highest opportunity costs. Once identified there was extensive consultation and plans drawn up for overcoming these opportunity costs. Ultimately they were overcome through the design of the replenishment and temporary closures because market opportunities to diversify livelihoods in this part of Mozambique are extremely limited (see Output 4). The process resulted in the development of the co-management plan which was subsequently approved by the community at the General Assembly led by the administrator of Palma in November 2016.

In the meantime, the CCPs of Nsangue Ponta met the neighbouring community of Lalane (second pilot village) in August 2016 (Annex 25). This meeting had a double effect: the acknowledgement of Nsangue Ponta's co-management plan by Lalane leaders, and inspiring the CCP of Lalane to develop their own plan. The Lalane co-management plan has followed the same process as for Nsangue Ponta's although it still needs a public approval at a General Assembly. Interestingly, a friendly competitive nature between the two villages seemed to be part of the motivation on the part of Lalane to pursue these management interventions, together with the recognition that fishers could be displaced from Nsangue Ponta into the fishing grounds of Lalane. The replenishment zone proposed by Lalane (160 ha) is bigger than that of Nsangue Ponta (20 ha), perhaps also motivated in part out of competition. The rapid spread to neighbouring communities following adoption of an idea in an early adopter or pioneer community is a phenomena we have come across frequently in other Darwins (ZSL-Cameroon and ZSL-Philippines), and was also a strong feature in implementation of the VSLAs (see Output 3). The challenge is finding an early adopter. All the above strategies (the participatory decision making process that led communities through identification of threats, objectives and solutions; the visit to Madagascar and the rebranding and showing of videos) significantly helped in encouraging Nsangue Ponta as an early adopter. Both co-management plans still need to be signed off by National authorities, and indeed they have been approved at the Provincial level now and passed on to the National level (Annexes 26, 27 & 28). We are currently working with the authorities to finalise this National authorisation of the co-management plans for six CCPs (including Lalane and Nsangue Ponta) at an event in November 2017.

Both DPP and DSEA co-organised a capacity-building workshop to the benefit of the CCP of Nsangue Ponta in January 2017 (Annex 28). This workshop had the objective to build the CCP members' capacity in leadership and conflict management. These discussions underpinned the role of CCP members in engaging with the community through participatory processes when implementing their co-management plans. There was a cross-visit to Kuruwitu in Kenya in April 2017. Kuruwitu is a very successful community managed marine conservation project that was recently awarded the Equator Prize. During the cross visit, CCP members received further training and had the opportunity to discuss enforcement issues and learn from the experiences (Annex 29).

Nsangue Ponta have demarcated and are actively enforcing their temporary closed area and replenishment zone, with the full support of local authorities. The first opening of the temporary closure is due on 3rd August 2017. Enforcing these closures has been a challenge because of

the proximity to Mocímboa da Praia. News spreads rapidly and there was a major invasion of the area by people from Mocímboa da Praia. However, with the help of the project, the CCP was able to respond quickly. AMA worked with the marine police and SDAE to send an enforcement team who regularly travel to the area to back up the CCP. Whilst Nsangue Ponta are still putting in place all the requisite enforcement infrastructure, the project was able to lend the CCP their boat for conducting patrols during the spring tides (which is when fishing occurs). Before the end of 2017 the CCPs of Nsangue Ponta, Lalane and nearby Quifuke will be sharing a patrol boat to enforce their respective areas. The broader OSOL project is also investigating the construction of guardhouses, following the method used in the Philippines, to support enforcement because of the geography of the area and the challenges of enforcement in an area with relatively few replenishment zones. Their protection status makes them an enticing target for fishers from other areas because of the possibility of higher catches, and a more robust enforcement presence that is cost effective is necessary. The infrastructure and boats will all be paid for out of the sustainable financing mechanism, similarly to many other costs associated with community-level implementation (see Output 2).

Representation of women / decision-making positions

Women represent 24% of CCP membership and officials of the two pilot villages representing 179 female fishers

Women represent 24% of the members for each of the two CCPs. Increasing this percentage to the target 30% has been a struggle. Gender norms are strongly entrenched within these communities, with a desire to remain the same and fear of jealousy playing a very strong role in influencing the roles that women are willing to take. This is often referred to as "*itungi*" by women (see women's small business assessment undertaken for broader OSOL project under another grant - Annex 44). Women are active in organising community savings, or exploring new ways of investing their money in small scale businesses (tea rooms, selling cakes, buying/selling seafood, etc.), but are less willing to engage in decision making. The OSOL project continues to work on improving participation of women in CCPs. Currently, our main strategy is to conduct consultation and elicit contributions to co-management plans through VSLAs. In another OSOL site (Quiwia), we established an Intertidal Harvester Group (IHG) targeted primarily at women due to the gender differentiation in access to fishing areas and activities. However, we discovered that women insisted on men being part of this group, and that the organisational costs of these groups were very high and additional to the organisational costs of the CCPs themselves. Often the men were then nominated for engagement in the CCP. This was therefore not a replicable model, and the decision was taken to focus on engaging women more in decision making through the VSLAs. Given that there are many VSLAs per community, this strategy also provided an opportunity to broaden participation, particularly engaging more vulnerable community members.

Peer reviewed paper on project achievements

The logistical challenges presented to the project meant that we were only able to progress to the point of finalizing and starting the implementation of co-management plans in Lalane and Nsangue Ponta during the timeframe of the Darwin Initiative project. Assessments on the efficacy of these interventions in halting or reversing the current declines in key biodiversity indicators and biomass of key fisheries species will occur in 2018, thanks to co-financing to the broader Our Sea Our Life project. However, in the mean time we have progressed an integrated assessment of coastal fisheries in northern Mozambique, which is due for submission by Q3 of 2017.

An initial assessment of fisheries in northern Mozambique was presented at the 9th Western Indian Ocean Marine Science Association (WIOMSA) Symposium in Durban in October 2015. This assessment has been updated with data from the ongoing monitoring and evaluation, and will be ready for submission by Q3 of 2017. The assessment is based on data collected from >2,200 fishers across the six OSOL village. The results illustrate that the coastal fisheries of northern Mozambique represent some of the more complex artisanal fisheries in the Western Indian Ocean. They catch some of the highest number of species, employ the widest range of

fishing gears and methods and range over a high variety of marine habitats when compared with other fisheries that have been assessed in the region.

Output 2: Equitable and robust Community-PES schemes reinforcing the implementation of co-management plans in the two pilot villages, and supported by local authorities and private sector actors.

The community-PES mechanism has been developed with a programme profile and programe manual, and is being implemented in Lalane and Nsangue Ponta to support the CCP activities with village agreements in place and some already completed. A governance body has been established with associated terms of reference, and meets annually to provide oversight of the system and agree an annual budget. The Community-PES mechanism currently has a budget of £31,600 from project funds that have been allocated to support the CCPs' co-management activities until September 2017, thanks to the broader co-financing with EU and Fondation Ensemble. Due to the rapidly changing and uncertain economic climate in northern Mozambique as oil and gas plans have changed in response to global fuel prices and a change of government in Mozambique, we have not been able to enter into agreements with the private sector during the period of the Darwin project. Due to this uncertainty, we are currently enacting a plan that brings in additional expertise to redefine the plan for bringing in private sector funding and explore opportunities with private and public sector partners outside of Cabo Delgado. In the mean time we have sufficient project funds to operate the Community-PES mechanism until at least the end of 2018, and we have already received interest from other donors to support this mechanism post-2018.

PES-eligible co-management activities

PES-eligible management activities have been agreed and integrated into the co-management plans of Lalane and Nsangue Ponta.

A Programme Manual (Annex 34) has been drafted that is a "how to" document for implementation agencies supporting communities to establish LMMAs and ensure that they are eligible for the performance-based support mechanism. This manual allows co-management plans to be assessed against an Our Sea Our Life 'Standard' (criteria of eligibility for the management activities). Standard requirements are based on best practice guidelines for LMMAs (WIOMSA Assessing Management Effectiveness 2005; MPA MEAT 2011). Examples include: i) use of a participatory process; ii) boundaries clearly defined; iii) activities address specific threats; iv) activities suited ecological conditions; and v) activities have potential to meet locally-defined objectives.

The co-management plans of Nsangue Ponta and Lalane have been developed following the Standard requirements described in the Programme Manual, and the AMA team are now familiar with these requirements.

Activities are divided into different phases of the co-management process, and can include, for example, construction of the CCP office (required within legislation), procurement of capital items such as buoys to demarcate the area, fuel for enforcement, stipends for enforcers and maintenance of capital items (e.g. enforcement boat etc). These activities are detailed in the co-management plan and a budget provided, together with indicators and the means of verification.

Co-management technical committee

An Advisory Group (co-management technical committee) was formed to design the Sustainable Financing Mechanism (governance arrangements for the delivery of performance-based support) with the scope to operate LMMAs in partnership with NGOs and government authorities. Once developed, the Steering Committee was formed out of this group, providing the governance structure for the sustainable financing mechanism. We have met separately with private sector stakeholders in the area to ensure the system is compatible with any

potential investment from them. However, whilst they are not investing in any long-term activities in the area those conversations have remained exploratory and to keep people informed of our progress.

The project established an Advisory Group (co-management technical committee) to design the Sustaiable Financing Mechanism. The Advisory Group was composed of the following institutions: AMA; ZSL; IDPPE; ADNAP; IIP; Fauna and Flora International (FFI); Bioclimate; IUCN; EU delegation. Although there was variable participation due to the geographic spread of participating institutions, 4 advisory meetings were held to discuss and decide on the design of a Sustainable Financing Mechanism, resulting in the development of the OSOL Profile document (Annex 31). Private sector meetings were kept separate from the Advisory Group, which was judged to be the most suitable approach for working with oil and gas industry and tourism actors at this point in project development and due to the economic uncertainty in the area. There was excellent Provincial-level government participation, and the advisory group acted as a forum in which AMA, international partners and government personnel could interact and exchange ideas and build the governance of the Sustainable Financing Mechanism now embodied in the Steering Committee. Once the mechanism was designed, the Steering Committee was formed out of the Advisory Group (Annex 30). This group meets once per year to review progress and performance, recommend Community-PES applications for funding, and agree budgets.

Village agreements & Participatory monitoring systems

CCPs in Nsangue Ponta and Lalane entered into village agreements for two different phases of support. These village agreements provide detail of the activities to be undertaken and associated costs, a description of roles and responsibilities, payment terms and the indicators and means of verification.
Participatory monitoring system links up payment to expected outcomes: a CCP diagnostic tool assesses the functioning and governance of the CCPs for phase 1 support (building the capacity and readiness of CCPs to implement co-management plans). Phase 2 support is monitored against activity-based indicators designed by AMA and the CCPs and described in the co-management agreements.

Co-management agreements have been split into two phases: Phase 1 agreements include in-kind support (Annex 32) to establish functioning and well-governed CCPs that are ready for developing and implementing co-management plans. A CCP diagnostic tool was developed in order to objectively measure the capacity and readiness of CCPs and identify support requirements. This diagnostic tool pulled together indicators that took into consideration legal requirements (e.g. CCP office) as well as principles of good governance (e.g. representation and participation, transparency and accountability), and form part of the OSOL standard. Phase 1 agreements were signed with Lalane and Nsangue Ponta. The agreements detail the support provided by the project, and the intended use/ application of this support, which is predominantly in-kind training and materials.

Phase 2 agreements support the implementation of the co-management plan itself. Advancing to a Phase 2 agreement is conditional upon both parties (the CCP and AMA) meeting the Phase 1 agreement terms and achieving a threshold score in the CCP diagnostic tool. Support required for Phase 2 is identified in a participatory manner with the participating CCPs, and aligns with the activities described in the co-management plans, such as demarcation, communication, and enforcement. Both Lalane and Nsangue Ponta have signed Phase 2 agreements and the terms of those agreements are in the process of being fulfilled. The Programme Manual includes a CCP finance plan, which provides guidance on the OSOL requirements and the eligible costs that can be supported. Each agreement details the support provided by the project, how the support will be used for implementing the management plan over the course of the agreement (one year, renewable agreements), and the activity-based indicators to be monitored on a quarterly basis.

Delivering performance-based support

£3,200 was been spent in performance-based support during the last quarter of 2016 in Lalane and Nsangue Ponta, following the guidelines of the Programme Manual. In the last Steering Group meeting a further £31,600 was budgeted for the period March-September 2017 for all OSOL sites. This budget is funded by project funds from Fondation Ensemble and the EU, who will carry on contributing to performance-based support until December 2018.

The Steering Committee ensures the good governance of funds, resources and support provided to coastal communities through the Phase 1 and Phase 2 village agreements (see terms of reference in Annex 30). The Steering Committee is not a separate legal entity and is a common mechanism used for the coordination of activities involving various actors in Mozambique. The first Steering Committee meeting was held end of 2016 and included representatives from CCPs of all communities, Our Sea Our Life partners, and DPP. Bringing communities, government and NGOs together in this type of meeting is unique in Cabo Delgado fisheries, and is a great achievement of the project.

The Steering Committee relies on guidelines (Programme Profile, Annex 31) to assess the co-management plans submitted by the CCPs and provide commensurate support (Phase 1 and Phase 2 agreements) and monitor their efficiency on the ground. The programme profile details the operation and rules for the use of Community-PES funds. The coordination group (OSOL partners) work with the communities following the Programme Manual to develop the co-management plans and associated proposals for funding from the sustainable financing mechanism. The Steering Committee review these proposals, make recommendations for funding, and review performance. Funds sit within a separate bank account held by AMA who have to provide detailed financial reports to the Steering Committee. £3,200 was spent from this account in the last quarter of 2016 in the 2 pilot villages. A further £31,600 is budgeted (Annex 33) for the period March-September 2017 for all OSOL sites. This budget is funded by project funds from Fondation Ensemble and the EU, who will carry on contributing to performance-based support until December 2018.

Private sector

No MoUs have been signed with private sector supporters due to economic uncertainty in the area that has affected the ability of the private sector organisations to invest. The tourism companies with direct interests in the areas concerned have stopped operating due to the impact of the oil and gas sector developments and economic uncertainty in the area. The oil and gas developments have been largely on hold due to a drop in the price of oil and political changes, so the gas companies and their suppliers are not currently making investments in the area, and those companies setting up to be ready for the developments to start are cash-strapped for now. Instead, we are enacting a plan to bring in funds using other approaches (e.g. the VSLA Environmental Funds that were successfully piloted in the Philippines and are used in the Darwin project there, fishing licences and fines, and from the SDAE) and we are consulting some external experts to advise on a new strategy for approaching the private sector. We have already received interest from some donors who wish to support a continuation and expansion of our work in the area post-2018 (when co-financing also finishes). We are therefore remain confident that we will be able to achieve this target by end of 2018.

Establishing an MoU with an appropriate private sector supported has been the most challenging component of this project output. No MoUs have been signed with private sector. At the time of writing the proposal we initially identified the tourism sector and companies associated with the oil and gas developments as our primary markets. However, the economic landscape in Cabo Delgado has changed dramatically, and fairly unpredictably. An initial burst of activity from the oil and gas sector led to dramatic changes in the existing private sector actors in the area. The luxury tourism lodges close to Lalane and Nsangue Ponta closed their doors to tourism for a combination of reasons. Access to the area became more strictly regulated and international private flights were no longer allowed to land at Mocimboa da Praia – which was how the luxury tourism operators would bring in their guests. Additionally, companies started investing in businesses that could cater to the imminent arrival of thousands of oil and gas workers. However, a drop in the price of global oil together with change in

government in Mozambique resulted in the oil and gas developments effectively being put on hold. Those companies that had invested to cater for thousands of workers that never came were suddenly in limbo. There was huge amounts of speculation and uncertainty and no-one appeared to have any certain information on what was going to happen. As such, none of the private sector actors that we had initially identified as our market for sustainable financing were in a position to invest.

We had a series of very fruitful conversations with Metundo Lodge particularly (the luxury tourism lodge closest to Nsangue Ponta and Lalane), but with changes in ownership and the place being for sale it was impossible to come to any firm commitment. Meetings with oil and gas sector have been on-going throughout the project, including meetings with Shell, Anadarko and EEA (ENI East Africa) and some of their key contractors and suppliers. However, the oil and gas companies are still working out the best way to offset their impacts, both from a social and environmental perspective, whilst they wait for the economic and political landscape to settle. We also knew that we could not work directly with the oil and gas sector alone, and had planned to team up with IUCN Fair Coasts Initiative. Whilst we joined a number of their meetings, that project too was eventually shelved temporarily whilst the oil and gas companies waited for the right time. We collaborated with FFI on some work they were contracted to do by EEA, and submitted a component of a proposal that FFI had been asked to draw up. Again this lead went quiet. As a result, we have started to team up with larger regional and international initiatives that are interested in offsets and are looking at Mozambique as just one of their case studies. We have recently had some very fruitful conversations with the AFD funded COMBO project led by WCS, which is looking into development of national-level biodiversity offsetting. But we recognise that this is likely to have a long time horizon beyond the term of the EU co-financing, so it must be part of a longer term strategy.

Recognising the need to secure investment to sustain the established LMMAs for the period post-broader EU-funded project (January 2019 onwards), our strategy is to develop: 1) local CCP financing mechanisms (VSLA Environmental Funds, fishing licences and fines, funding from SDAE); 2) explore opportunities beyond the private sector stakeholders present locally. To do the latter we are in the process of implementing a plan that brings in external experts to advise on redefining our target market and product offer. The new strategy with workplan will be completed by September 2017, giving us a further 16 months to finalise some financing agreements before the end of the current OSOL co-financing to ensure continuity. In addition to this we have been discussing a possible collaboration with Biofund, who have a huge trust fund and are interested in looking at models like OSOL for conducting conservation work outside of National Parks.

Output 3: VSLAs established and Village Agents trained in two pilot villages, increasing the capacity of villagers to manage income from PES and improve living conditions, and supporting investment in new sustainable enterprises.

After a challenging start, VSLAs have been an extremely successful element of OSOL, with over 153 households (95 men, 58 women) enrolled in seven VSLAs in Nsangue Ponta and Lalane in 2016. In 2017 this number continues to increase through the Village Agents. It was harder to find willing Village Agents due to the lack of literacy within the villages and challenges with the concept of voluntary community work within the culture of these communities. However, we have now trained one Village Agent per village, and they are replicating the VSLA model having formed six new groups. The Village Agents also act as community champions for co-management and link the VSLAs to the CCPs as they are both CCP members. Despite initial reluctance to engage in VSLAs, members are now saving on average US$107 per cycle, material style of life has improved and locally defined incidences of food insecurity have reduced. However, whilst subjective wellbeing increased in Lalane, it decreased in Nsangue Ponta apparently due to food security concerns (in contrast to the food security results) because of rapid increases in the price of food across northern Mozambique. 5% of total savings were invested in enterprises, whereas 53% of loans were invested in small businesses. However, only 25% of VSLA members across all OSOL sites had taken loans at the time of writing, with one of the major reasons for not taking a loan being a lack of opportunities for

investment.

VSLAs & Village Agents

At the time of writing, four VSLAs were currently active across Lalane and Nsangue Ponta, with at least a further six in the final stages of being formed. One Village Agent has been trained per community, each of which are CCP members. Village Agents are champions that connect co-management activities to small-scale businesses and form new VSLAs in order to improve the success of LMMAs. Six VSLAs are currently in formation by the Village Agents are to come soon in a community sharing fishing grounds with Nsangue Ponta.

Villages	Years	# VSLAs	# members
Lalane	2014	2	50
	2015	3	68
	2016	3	68
	2017	1 (+1 in formation)	19 (+x)
Nsangue Ponta	2014	2	49
	2015	4	85
	2016	4	85
	2017	3 (+5 in formation)	65 (+x)

Table 1: Evolution of the number of VSLAs members from 2014 to 2017

Table 1 shows the change in number of VSLAs and VSLA members in Lalane and Nsangue Ponta. There has been a drop in the number of VSLAs and VSLA members in Lalane as a result of misconduct by an AMA extension worker who was subsequently fired. The misconduct was serious as a lot of money was stolen from the community, both from VSLAs and from other individuals, after he convinced people that he could buy them goods if they gave him the cash in advance. This sort of problem is extremely rare and was a major learning experience for AMA, the community, and OSOL as a whole. Interestingly, it was easier to deal with the impact on VSLAs because the logbooks kept a record of how much money each person had invested (the lock boxes were not stolen, but instead he convinced members to hand over their savings). This meant that AMA could quickly reimburse the VSLA members affected. However, the result was that all of the VSLAs collapsed. A new extension worker has been recruited and is rapidly winning the confidence of the community, with VSLAs quickly coming back into operation again. Further measures are being implemented to ensure that a repeat does not happen, including an information campaign by the broader OSOL team to alert everyone that project staff will never ask for money and they should never hand over money to project officials. Additionally, they should be very wary about handing over money in advance to anyone, and they can contact more senior officials in the project if they ever have any concerns they would like to discuss.

Village Agents (all CCP members) have been selected and trained to link up co-management activities and small-scale businesses enabled by VSLAs. Village Agents are valued community members that have the trust of their own community and have put themselves forward to help to promote and replicate VSLA groups. This was a challenging concept to recruit for, because of the lack of experience with voluntary community work in these areas. However, that has now been overcome and the status afforded by Village Agents, together with a very small contribution that is made to Village Agents out of the Social Fund at the end of each cycle has helped to secure their roles. The Village Agents are VSLA members themselves and are therefore well placed to champion them. Lalane Village Agent has already formed a new VSLA group with 19 members, and Nsangue Ponta Village Agent is in the process of forming five VSLAs. This expansion improves the understanding of what LMMAs are and the engagement of the wider coastal community with the implementation of successful co-management plans.

Living conditions of households involved in VSLAs

Community banking is having a positive impact in Lalane and Nsangue Ponta as it empowers the VSLA members (up to 95 men and 58 women in 2016), especially women, by improving their well-being and providing opportunities to invest in small-scale businesses. We have learnt this through anecdotal information (Annex 35) but also through the final socioeconomic survey. Material Style of Life indicators show there is higher ownership of zinc roofs, solar panels and mattresses among VSLA households.

Material Style of Life indicators show there is higher ownership of zinc roofs, solar panels and mattresses among VSLA households (Table 2). Subjective well-being (locally-defined wellbeing scores) is mixed (Table 3). The proportion of respondents in the satisfied quadrant (satisfied and very satisfied) is higher amongst VSLA households in Lalane, but slightly lower in Nsangue. In general, satisfaction with life in Nsangue decreased between the baseline and repeat surveys. However, results are indicative only due to small sample sizes comparing non-VSLA and VSLA members (draft socioeconomic impact report in Annex 39). This survey would need a larger sample size to confirm the improvement of living conditions of households involved in VSLAs. But anecdotal information (Annex 35), individual testimonies and ongoing meetings demonstrate that VSLA is a corner stone of the project approach in the two pilot villages. We have found that men and women within a household tend to keep their finances separately, partly because women can be very easily divorced and men then have ownership of the house and resources. Through membership in VSLAs women are able to build a safety net that they keep separate to men. Although in Lalane and Nsangue Ponta the proportion of women members of VSLAs was only 38%, the proportion for other sites is higher (47% overall, including Darwin sites) and we anticipate many more female members in the new VSLA groups that are forming. Women indicated that it was important that men were members and had experience with VSLAs so that there would be more trust and less jealousy (*intungi*) when they start.

	Non-VSLA households		VSLA households	
	Lalane (n=46)	Nsangue (n=36)	Lalane (n=5)	Nsangue (n=14)
	%	%	%	%
Zinc roofs	24	11	40	0
Solar panels	20	22	40	29
Mattresses	4	11	40	29

Table 2: Key MSL indicators for non-VSLA and VSLA households from the socioeconomic surveys. Figures are percentages of households owning zinc roofs, solar panels and sleeping mattresses. *Source: repeat household survey (Annex 39)*

	non-VSLA households	VSLA households
	%	%
Lalane	46	60
Nsangue	50	43

Table 3: Percentage of respondents defining themselves as satisfied with their lives, for non-VSLA and VSLA households. *Source: repeat household survey (Annex 39)*

Food security

The repeat survey showed that situations associated with food insecurity have become less common in the two pilot villages. VSLA savings are often used to buy basic necessities, including food.

Falling agricultural production as a result of climate-related factors is a major threat to food security in the OSOL communities, forcing families to buy food to compensate for the shortfall. At the same time, high inflation in Mozambique over the last two years has resulted in sharp rises in the prices of food, which means that people have to spend more of their cash on food

(Annex 42).

Only nine households surveyed were female headed households (Annex 42), which was too small a sample size to detect changes in the use of food coping strategies. However, across all households surveyed we found that food coping strategies had reduced by an average of 52.1% in Lalane and 44% in Nsangue Ponta (Table 4), despite the backdrop of reduced agricultural productivity and inflation in food prices. VSLA savings are likely to have played an important role as indicated by a separate survey of VSLA members (n=87 across six villages, Annex 39), which shows that savings and loans are often used to buy basic necessities, including food.

	Lalane		Nsangue	
	1 (n=51)	2 (n=51)	1 (n=50)	2 (n=50)
	%	%	%	%
1.1 Taking credit last month	44.0	15.7	38.0	18.0
1.2 Taking credit last year	46.0	21.6	44.0	32.0
2.1 Asking food last month	37.3	17.6	34.7	16.0
2.2 Asking food last year	39.2	13.7	36.7	20.0
3.1 Selling assets last month	52.9	27.5	46.0	24.0
2.2 Selling assets last year	54.9	35.3	54.0	32.0
Indicators average	39.3	19.1	36.3	20.6
% change		52.1		44.0

Table 4: Change in the three locally-defined food security indicators. Column (1) indicates percentage of households experiencing a situation associated with food insecurity during the baseline survey; while column (2) indicates the figure during the repeat survey. *Source: Repeat household surveys (Annex 39)*

Savings, loans and new entreprises

The average savings is US$ 107 per VSLA member (target was US$20) in the most recent share-out on a survey undertaken to 87 VSLA members across the 6 villages of the broader EU-funded project. 5% of the total savings volume was invested in small-scale businesses (fish trade and small shop), whilst 53% of loans were invested in small-scale businesses.

VSLAs have been an effective means of promoting savings in the villages of the broader EU-funded project. Nearly all VSLA members (98%) were able save over US$ 20 over a period of one year (excluding profits from interest on loans given). 28% of members saved between US$ 20-50 and 32% between US$ 50-100. 38% were able to save over US$ 100. The average savings was US$ 107 (lowest US$ 8 and highest US$ 452). Table 5 shows VSLA member savings for their most recent share-out after a period of 9-12 months, based on a survey undertaken to 87 VSLA members across the 6 villages of the broader EU-funded project.

Interval (US$)	Details (US$)	Number of respondents	%
<20	Equal or lower than 20	1	2
20-50	Over 20 and equal or less than 50	14	28
50-100	Over 50 and equal or less than 100	16	32

100-200	Over 100 and equal or less than 200	13	26
200-350	Over 200 and equal or less than 250	4	8
>350	Over 350	2	4
		50	100

Table 5: VSLA member savings in their most recent share-out after 9-12 months saving cycle excluding any profits from interest on loans given to group members. Based on a VSLA members survey undertaken across six OSOL villages, including Lalane and Nsangue. n=87 members, 63 of which had completed one full cycle and 50 of which could provide information on savings. The original savings data was collected in Mozambique Meticais (MZN). The conversion used was 1 US$ = 59.8 MZN.

The VSLAs are starting to have positive impacts on supporting new enterprises, but mainly through the loans that members take out. Savings received at share-out have been spent mostly on improving housing conditions such as cement to improve floors and reinforce walls, wooden poles and zinc roofs; and on basic necessities such as food and clothes. For the savings at share-out, 36% of the uses given to these savings were related to improving housing, amounting to 48% of the total savings volume, across the six villages of the broader EU-funded project. Basic necessities represented 28% of all savings uses, and amounted to 14% of the total savings volume. Only 8% of all savings uses were investing in businesses and this represented only 5% of the total savings volume across the sample. Approximately 25% of VSLA members across the six villages of the broader EU-funded project took loans. Investing in businesses accounted for 44% of all loan uses, and represented 53% of the total volume of loans. The most common businesses were fish trade and small shops.

Output 4: New sustainable enterprises developed through the provision of training and linking to relevant markets, increasing levels of livelihood diversification.

Market-based opportunities have been more limited in the project sites than we anticipated. The severe problems with road transport and boat (see section 2) acts as a strong barrier to markets. The project has supported horticulture improvements in the Nsangue Ponta and Lalane, diversifying their vegetable production and providing access to improved seed. OSOL is also trialling oyster farming methods in Quiwia (site from the broader EU-funded project) which will be replicated to other OSOL sites if successful. With unreliable access to the main markets in Mocimboa da Praia or Palma, horticulture is most likely to contribute to increased food security, and higher value fish that can be dried or salted will remain the main source of income until roads are significantly improved. We have also had to conduct significant trials for horticulture, and continue to do so for oyster aquaculture. Therefore they have not had the reach and impact we originally envisaged. Rather than relying on livelihood diversification to help overcome the opportunity costs of conservation, we have had to focus on ensuring that opportunity costs are minimised through careful planning and design. Temporary closures and VSLAs also help with overcoming the opportunity costs by helping to manage finances and providing access to one off lump-sums of cash.

Two new enterprise opportunities / Fishing households & livelihood diversification

The project has been supporting horticulture in Lalane and Nsangue Ponta (Annexes 51-54), and we are trialling oyster farming (Annexes 55-56) in Quiwia (site from the broader EU-funded project).

The objective of establishing new enterprises was to reduce dependence on fishing, providing the economic space for communities to cope with the short-medium term opportunity costs of conservation. The biggest problem with this strategy in Lalane and Nsangue Ponta is the extremely limited and unreliable access to market. Where goods are sufficiently valuable, have long shelf-lives and can be easily aggregated for transport to market (e.g. fish that can be dried), it is possible to wait until conditions are appropriate to make those trips and then do so cost effectively. But there are few other products that we could find from within the communities that meet those criteria and have a market in Mocimboa da Praia or Palma (the closest market

towns). Additionally, the demise of the luxury tourism market nearby and pause on the gas developments mean that there were few new markets developing.

Instead we have focused on horticulture in Lalane and Nsangue Ponta, which is primarily for consumption with these villages. The aims were to diversify crops, improve practices and provide access to improved seed. The main constraints have been wildlife raiding the crops, and well documented climatic shifts in the area that make agriculture more challenging (an issue cited by >60% of respondents in both villages in the socioeconomic monitoring and evaluation). We have therefore taken an experimental approach, and particularly focused on training in soil and moisture conservation techniques (Annex 37), in collaboration with SDAE. Two horticulture associations (1 of men, 1 of women; 10 to 15 members per group) have been formed in each village (Nsangue Ponta and Lalane), linked to VSLAs, and received training and input support and are actively farming new crops that have never been grown previously in these communities, including using ecological techniques for pest reduction such as a spray made from a mulch of local plants (Annexes 51 to 54). The management of a high-end hotel based in Palma where workers of the oil & gas industry stay shows great interest for buying the vegetables produced at a very good price, but we are still in the process of finalising this relationship.

We have also partnered with the University of Aveiro to conduct some trial oyster farms (Annexes 38, 55 & 56). Quiwia was chosen as the initial pilot site because it appeared to have the most conducive biophysical conditions for success. If the trial is successful we aim to roll this out across OSOL sites, particularly targeting women who have high dependence on illegal mosquito net fishing.

Overall, there has been a slight reduction in livelihood diversification in Lalane and Nsangue Ponta. As yet the scale of horticulture has not been sufficient to increase diversification. Interestingly, 21.6% (Lalane) and 38% (Nsangue Ponta) of households surveyed in the socioeconomic assesmsents reported having stopped a subsistence and/or income generating activity since the baseline survey, with fishing being one of the most frequently stopped occupations. Overall, six of 51 households interviewed (11.8%) reported having stopped fishing in Lalane, and four of 51 households interviewed in Nsangue Ponta (7.8%). 21.6% of households reported having started a new occupation in Lalane, and 16% in Nsangue Ponta, with small businesses (Lalane) and farming and fishing (Nsangue Ponta) forming the main occupations started. So horticulture may have prevented a more serious decline in livelihood diversification.

	Lalane		Nsangue	
	1 (n=51)	2 (n=51)	1 (n=50)	2 (n=50)
Average n. of occupations	3.4	3.1	2.8	2.5

Table 6: Change in average number of livelihood occupations (subsistence and income), fishing households. Column (1) shows baseline figures and column (2) repeat survey figures
Source: Baseline and repeat household surveys

Capture fisheries to household income and food production

Fishing households report a non-existing or very marginal variation in the relative importance of capture fisheries to household income. Food is primarily purchased.

Overall, household dependence on fishing for income remained largely unchanged for those households engaged in fishing (Table 7). As explained above, some people exited fishing over the course of the project, with low catches the reason given for exiting fishing, meaning that for some people there was complete substitution of income.

	Lalane	Nsangue

	1 (n=51)	2 (n=51)	1 (n=50)	2 (n=50)
Average % contribution of fishing	65.3	65.6	66.0	63.6

Table 7: Change in importance of fishing to household income for fishing households. Column (1) shows baseline figures and column (2) repeat survey figures. *Source: Baseline and repeat household surveys*

The amount of food obtained through purchases decreased slightly during the course of the project, with the contribution of own production increasing (Annex 39). Reduction in food purchases was likely a response to inflation. Dietary diversity decreased (Annex 39). Given that most fish was sold for income, it appears that inflation had the effect of reducing dietary diversity rather than encouraging people to retain more fish to eat. It is likely that the impacts of inflation on food security and dietary diversity would have been worse if the project had not implemented VSLAs, which appear to have provided a degree of resilience to these changes.

3.2 Outcome

The project has successfully developed the mechanisms and capacity [an approach] for incentivizing effective co-management of marine and coastal areas in northern Mozambique in a way that involves women and is pro-poor. This approach has been applied to two pilot coastal villages between the Rovuma River and Mocímboa da Praia, Mozambique, resulting in 570 ha of marine and coastal habitat (>200 ha target) being actively managed by two CCPs with women representing 24% of CCP members (>30% target). Wellbeing has by most measures increased, with VSLAs clearly playing an important role in increasing food security despite issues with inflation and increasing material style of life. As a result of the economic uncertainty and rapidly changing landscape for the private sector in norther Cabo Delgado, we have not yet succeeding in finding a private-sector investment for sustaining co-management of marine and coastal areas into the longer term. As a result of the practical challenges of working in the far north of Cabo Delgado (see section 2), we also have not been able to implement the co-management interventions for sufficient time to see an improvement in the condition of marine biodiversity. However, by raising co-financing from the European Union and Fondation Ensemble which continues to the end of 2018, we have been able to secure the outcome of the project and will be able to assess the biological and socioeconomic impact of the co-management approach. Additionally, through this co-financing we have extra resources and a plan in place to redefine the approach for seeking sustainable financing. The co-management approach that we have developed is well embedded with local and national authorities, is being replicated in four additional Our Sea Our Life sites (>1 targeted), and has attracted the interest of new donors for the period post-2018. All of this will ensure that the outcome of this project will be sustained and that we will have the opportunity to assess the effectiveness of the approach developed.

Indicator 1: Community fisheries councils and their co-management plans

CCPs have developed and are actively implementing co-management plans covering key fisheries species and 570 ha (>200 ha target) of marine and coastal areas. 180 ha are in replenishment zones (no-take) and 390 ha in temporary closures.

See Output 1 for more details.

Indicator 2: 30% of CCP membership are women representing 500 intertidal harvesters

24% of the CCP members in the two pilot villages are women representing 179 intertidal harvesters (see table 10 of Annex 50).

There were fewer intertidal harvesters in Lalane and Nsangue Ponta than we initially expected, with 179 in total (Annex 41). See Output 1 for more details.

Indicator 3: Decreasing trends in biomass of key fisheries species and key biodiversity metrics halted or reversed

Too early to tell.

Co-management plans are in place but implementation only started in the final year of the project. Monitoring systems are in place, including through landings surveys and underwater visual census (Annex 43). Co-financing by the European Union and Fondation Ensemble mean that we will be able to assess the impact of the co-management measures in late 2018, after which we will publish the results in a peer reviewed journal.

For further details see Output 1 and Annex 43.

Indicator 4: Increasing trends in populations of 5 flagship IUCN red list species within CCP management areas

Too early to tell – but CPUE of three flagship IUCN red list species have improved, and effectively implementation of co-management plans are expected to deliver further improvements.

Flagship IUCN red list species are being monitored (Annex 43). As co-management only started being implemented in the final year of the project it is too early to tell the impact on these species. However, CPUE (an indicator of abundance) of three flagship species *E. fuscogutttatus (*marbled grouper), *P. laevis* (coral trout grouper) and *C. undulatus* (Napoleon wrasse) showed some evidence for an improvement in the population abundance of these three important flagship conservation species (Vulnerable or Endangered on the IUCN Red List) using catch biomass as a proxy for population biomass. Verification of this effect will be confirmed by independent surveys of these species using underwater visual census surveys in March 2018. The co-management plans include 180 ha of replenishment zones, which are completely no-take. These areas contain good quality habitats that are known to be important for these species. It is expected that effective implementation and enforcement of these replenishment zones will lead to local increases in size and abundance of these species. Co-financing by the European Union and Fondation Ensemble mean that we will be able to assess the impact of the co-management measures in late 2018, after which we will publish the results in a peer reviewed journal.

For further details see Output 1 and Annex 43.

Indicator 5: 30% increases in locally-defined food security indicators for households within the two pilot villages

Locally defined food security indicators improved by 52% in Lalane and 44% in Nsangue Ponta (Table 4 and Annex 39)

VSLAs have been instrumental in helping to achieve these improvements in locally defined food security indicators, despite inflation of food prices.

See Output 3 and Annex 39 for more details.

Indicator 6: 20% improvement in locally-defined wellbeing scores and material style of life.

There were >100% improvements in material style of life as evidenced by increases in zinc roofs, solar panels and mattresses. Subjective wellbeing increased in Lalane but decreased in Nsangue Ponta.

Changes in subjective well-being were mixed. The proportion of people satisfied with their lives (satisfied and very satisfied) increased in Lalane but decreased in Nsangue (Table 8). In

Nsangue, the main reasons people gave for feeling dissatisfied with their lives were low production in farming and, to a lesser extent fishing, and not having enough food to eat. As a proportion of all reasons cited for dissatisfaction, low production rose from 11% in the baseline survey to 33% in the repeat survey and not having enough food from 21% to 33%.

	1	2
	%	%
Lalane (n=51)	37.3	47.1
Nsangue (n=50	70.0	48.0

Table 8: Percentage of respondents defining themselves as **satisfied** with their lives. Column (1) shows baseline figures and column (2) repeat survey figures. *Source: Annex 39*

Both communities showed substantial improvements in the three key Material Style of Life (MSL) indicators, including proportion of houses with zinc roofs, and ownership of solar panels and sleeping mattresses. The changes far exceeded the set target of an average of 20% improvement across all three indicators (Table 9). VSLAs are likely to have contributed to these improvements. The VSLA member survey showed that, across the six villages surveyed (n=87), the most common uses of savings were house improvements, which involved buying zinc roofing, cement, wooden poles, doors and paying for builders (35% of all uses reported). In Lalane (n=10) and Nsangue (n=15), 50 and 15%, respectively, of loan uses were for house improvements. The survey also showed that mattresses were another popular use for savings. These were the most frequent item in a category of 'things for the house', which accounted for 13% of all savings uses in Lalane and 30% in Nsangue.

	Lalane			Nsangue		
	1 (n=51)	2 (n=51)	% change	1 (n=50)	2 (n=50)	% change
Zinc roofs	9.8	25.5	160.2	0.0	8.0	n/c[2]
Solar panel	3.9	21.6	453.8	0.0	24.0	n/c
Mattress	17.6	25.5	44.9	18.0	36.0	100.0
Average % change across all the three indicators	-	-	219.6	-	-	100%

Table 9: Material Style of Life indicators. Figures are percentages of households sampled. Column (1) shows baseline figures, column (2) repeat survey figures. Percentage change was calculated using the excel formula: =((original_value-new_value)/original_value)*100. It is not possible to calculate percentage change when the original value is 0, as there is nothing to compare the change to. *Source: Annex 39*

For more details see Output 3 and Annex 39.

Indicator 7: Increase in the number of non-fishing occupations contributing income for fishing households from 0 to 1.

There were no increases in the number of non-fishing occupations contributing income for non-fishing households (Table 10 and Annex 39)

Fishing households had an average of one non-fishing occupation contributing to their household both at the beginning and the end of the project (Table 10 and Annex 39), and therefore showed no increase in livelihood diversification. The reasons for this are discussed in more detail in Output 4.

	Lalane	Nsangue

	1 (n=51)	2 (n=51)	1 (n=50)	2 (n=50)
Average n. of occupations	1.3	1.1	1.1	1.2

Table 10: Average number of non-fishing occupations contributing to income, fishing households. Column (1) shows baseline figures and column (2) repeat survey figures. *Source: Annex 39.*

For more details see Output 4 and Annex 39.

Indicator 8: At least 250 households engaged in VSLAs with an average of £17 each in savings

The project fell short of the 250 target for number of households engaged in VSLAs. However, we exceeded the savings target, with an average savings level of US$107 per member, and have village agents trained who are in the process of initiating a further six VSLAs in Lalane and Nsangue Ponta (potentially a further 150 members if at full capacity).

A slow start with VSLAs followed by a problem in Lalane with misconduct and challenges recruiting village agents meant that the project fell short of the 250 targeted VSLA members. However, we have overcome the problems and are on a trajectory for replication within these villages through Village Agents.

For more detail see Table 1 and Output 3.

Indicator 9: Replication of project approach to at least one new site

Through the co-financing of European Union and Fondation Ensemble we are currently replicating this approach in four new sites. Additionally, materials for replication are in development due to be completed by 2018, which will allow further replication.

Through co-financing we are currently replicating the approach in Quiwia, Quirinde, Quifuke and Malinde. The Programme Manual will be completed in September 2017. Additionally, guidelines for participatory development of co-management plans together with templates of the co-management plans and programme profile for valuable resources for replication (Annexes 22 & 34). We have held a number of meetings with other NGOs, including WWF-Mozambique, and are supporting Oikos in the Quirimbas National Park, based on the technical capacity and expertise built in Our Sea Our Life.

For further details see Outputs 1 & 2.

3.3 Impact: achievement of positive impact on biodiversity and poverty alleviation

Impact statement from logframe:

Social and ecological resilience is improved for Mozambique's coastal poor communities, including women, as a result of marine biodiversity conservation through co-management and increased livelihood security

The Our Sea Our Life project has developed a robust, equitable and replicable community-PES scheme that has empowered two coastal communities (including women) with high dependence on marine resources to improve their socio-ecological resilience. Fisheries Community Councils (CCPs) are the community organisations in charge of managing fisheries through a participatory planning that involves all of the community members. VSLAs are a critical element for increasing trust of the implementing agency, which enables progression into discussions of conservation interventions. They are also a critical element for increasing the resilience of coastal communities. It is expected that we will see increases in biodiversity and wellbeing indicators as a result of co-mangement by the end of 2018 (end of the co-financing

for Our Sea Our Life). Co-financing from the EU and Fondation Ensemble until December 2018 will consolidate the project outcomes enabled and piloted by Darwin Initiative and secure the socio-ecological resilience of the coastal communities to overcome poverty and integrate conservation and development in north Mozambique.

4 Contribution to Darwin Initiative Programme Objectives

4.1 Contribution to Global Goals for Sustainable Development (SDGs)

SDG 14 – conserve and sustainably use the oceans, seas and marine resources for sustainable development. This is the primary SDG of relevance to the project, and summarises exactly what the project contributed to achieve. We aim to show that appropriate conservation activities can actually lead to tangible benefit for local communities if the correct mechanisms are in place.

We also made contributions to SDGs 1, 2 and 5. For SDG 1 we worked towards reducing poverty. Whilst we did not measured against a specific monetary threshold of poverty because of the inherent challenges associated with monitoring levels of income in these sorts of communities, by attempting to increase income opportunities for community members then we are likely to have tipped some people over the absolute poverty thresholds. We also attempted to make a positive contribution to food security (SDG 2) which is something that we have actively monitored. And a key component of the project was to engage women in the decision making processes around the management of marine resources, and ensure that their voices are heard (SDG 5).

4.2 Project support to the Conventions or Treaties (CBD, CMS, CITES, Nagoya Protocol, ITPGRFA))

This project aimed to support the CBD. The institution responsible for oversight of the NBSAP until the government reshuffle in 2015 was the Ministry for the Coordination of Environmental Action (MICOA). A preliminary meeting was held with the Director of MICOA in Maputo by some of the Darwin team (AMA, CORDIO, Bioclimate) on 2nd November 2013 to introduce the project. Since the government structure was changed following the election of President Filipe Nyusi, MICOA was merged with some other functions into the new and large Ministry of Land, Environment and Rural Development (MITADER). The reshape has taken some time to settle down. The National Administration for Conservation Areas (ANAC) is under the jurisdiction of MITADER and is responsible for implementation of the Conservation Law (Law 16/2014). Other sectors relevant to the implementation of NBSAP include the new Ministry of Sea, Interior Waters and Fisheries (MIMAIP), also created in 2015. ADNAP are responsible for implementing the Fisheries Law. We are engaged most directly with ADNAP who have devolved responsibility to the Provinces through DPP. We are also engaging with ANAC to recognise the replenishment zones created by the co-management plans under the Conservation Law and how they contribute to the NBSAP. ANAC do not have a devolved authority and therefore are based solely in Maputo. We are continuing to work with the relevant authorities to aim for formal recognition of all these areas and formalise the process for authorizing these co-management plans (which has never previously been done in Mozambique) at an event in Maputo in November 2017.

Consultation with communities and engagement in baseline setting in the two project villages contributes to Mozambique's National Biodiversity Strategy and project Plan (NBSAP) and the CBD by complementing efforts to involve coastal communities in the management and benefit-sharing from the sustainable use of biological diversity.

4.3 Project support to poverty alleviation

The direct beneficiaries are the 500 households of the two pilot villages. Outputs 3 & 4 alleviate poverty by addressing food security, new sources of income (enterprise opportunities), the vulnerability and empowerment of women (gender equity). Whilst the development of new market linkages has been particularly challenging in these extremely remote communities, posing a major barrier to creating new enterprises, VSLAs have proven to be a critical component for poverty alleviation. High rates of inflation on food prices could easily have reduced food security in the project areas. Instead we saw improvements in food security, thanks primarily to the VSLAs

(see Output 3 and Annex 39). One of the numerically largest measurable impacts of the project has been on material style of life; largely driven by VSLAs.

4.4 Gender equality

The project recognised in its design the different roles of women and men in the fishery, both as fishers and in their role in the household. Women in coastal Cabo Delgado are responsible for the majority of domestic tasks, child care, and family nutrition, and there is not an equal division of labour and responsibilities in this context. Increasing gender equality was a particularly challenging task. After coming to understand the issues of *itungi* (see Output 3.1), we realised that it would be counter-productive to try to establish women's groups to tackle gender inequality (Annex 44).

The project had an impact on gender equality through 1) economic empowerment of women through membership in VSLAs: a total of 43 women joined VSLAs, which is a total of 56% of all VSLA members; 2) social empowerment of women through membership in the CCPs; a total of 24% of all CCP members are women, providing women with a voice in fisheries co-management decision-making; 3) working closely with local leaders, including religious leaders, to ensure the project and staff respect local norms while ensuring local support for the idea that women are included in co-management, VSLAs and other economic activities.

The Monitoring & Evaluation system captured the economic empowerment and social empowerment aspects of gender equality through basic figures on membership/ representation. However, the M&E system was not set up to provide information on the qualitative impact that this had on women's lives. Understanding this more qualitative aspect would require more in-depth approach, including case studies developed through ethnographic methods.

4.5 Programme indicators

- **Did the project lead to greater representation of local poor people in management structures of biodiversity?**

CCPs are the community organisations allowed by the Law of Fisheries to managed local fisheries. The OSOL project empowered 2 pilot CCPs of each 25 community members. See Output 1.

- **Were any management plans for biodiversity developed?**

Yes. Two co-management plans were developed and are being implemented covering 570ha of marine and coastal waters. The approach used to develop these plans is being replicated in four other communities. See Output 1 and Annexes 26 and 27.

- **Were these formally accepted?**

DPP has constantly been involved in the process of development of the two co-management plans. Local authorities are supporting the implementation of these co-management plans, including SDAE and the marine police. Formal approval is done at national level and takes some time, although local authorities have been happy to support in the interim. We are working together with the authorities towards national approval of these co-management plans at an event in November 2018. See Output 1.

- **Were they participatory in nature or were they 'top-down'? How well represented are the local poor including women, in any proposed management structures?**

Yes. The two co-management plans were developed following an entirely participatory approach (Annex 22) and with free, prior and informed consent.

- **Were there any positive gains in household (HH) income as a result of this project?**

Data on household income is unreliable at best or particularly costly to collect in any robust way in the context of coastal fishing communities like those found in northern Mozambique. However, it is unlikely that the project has had a material impact on income levels as it has not

affected prices or increased market access. Income levels may be impacted once the biological effects of the replenishment zones have been accrued (between 5 and 10 years from implementation). Temporary closures for octopus should in principle have increased income by allowing octopus to grow to a larger size before harvest, but there is little robust evidence to show that this has actually happened, even in places that have been implementing octopus management for much longer periods of time (e.g. Madagascar). However, the project has had a substantial impact on the ability of households to manage their income more effectively, and particularly to save. Average levels of savings went from $0 to US$107 per household engaged in VSLAs. In principle this could help households increase income by providing capital for investment in small businesses or other productive assets. Horticulture that the project supported is unlikely to materially impact household income as it is mostly for consumption. But it may help to improve household economy by reducing the amount of food bought. See Outputs 3 and 4 for more details.

- **How many HHs saw an increase in their HH income?**

See previous indicator.

- **How much did their HH income increase (e.g. x% above baseline, x% above national average)? How was this measured?**

See previous indicator.

4.6 Transfer of knowledge

Trainings and workshops were held throughout the period of the project (see Annex 3 below). The project was involved in a cross-visit to Madagascar and Kenya (Annexes 21 and 29). AMA staff were hosted by ZSL in UK for two weeks of training in 2016. Additionally, the project presented plans and results at two WIOMSA symposiums (2013 in Maputo; 2015 in Port Elizabeth). There is a paper in development due for submission to a peer reviewed journal in 2017. A number of manuals and guidelines have been produced, including an Our Sea Our Life manual that will be complete by December 2018, incorporating all the experiences from replication to four additional sites (see Outputs 1 and 2 and Section 5).

Did the project result in any formal qualifications?

n/a

4.7 Capacity building

The staff members of the project partner AMA have had the opportunity to travel on several occasions to attend conferences, facilitate cross-visits or participate to international meetings:

- AMA's marine biologist went to Kenya (Annex 45) in October 2014 to train with CORDIO East Africa staff (project partner) on participatory monitoring methods of coral reef health and statistical analysis of CPUE data.
- AMA's project coordinator and IIP Director attended a workshop on management of octopus fisheries in Tanzania in December 2014.
- An exchange visit to Madagascar in February 2015 involved CCP members to visit pilot experiences of community management of octopus fisheries. AMA officials in charge of the communication with the communities accompanied the visit.
- 3 staff members of AMA attended the WIOMSA conference in South Africa in November 2015 which was their first opportunity to give an oral presentation (Annexes 46 & 47) to an international symposium.
- AMA's Executive Coordinator and project coordinator were hosted by ZSL at ZSL Global Conservation Meeting in November 2016 to meet with a large panel of conservation practitioners working worldwide and share their experience from Mozambique.
- A cross-visit to Kenya in April 2017 involved CCP members to visit first operational LMMAs in East Africa and gain confidence and insight in regards to participatory approaches. AMA officials and the ADNAP Director at Provincial level were in charge of facilitating the visit.

The OSOL project was an amazing platform to build AMA's capacity in fisheries management and LMMAs development. AMA became an essential actor for marine conservation in Cabo Delgado. As a result, AMA and DPP signed a MoU which is key output for the sustainability of LMMAs in Cabo Delgado.

5 Sustainability and Legacy

The project has a clear identity of: “Nosso Mar, Nossa Vida” or “Our Sea Our Life”. This has helped us gain some recognition amongst various groups and stakeholders. A MoU was agreed and signed between AMA and the DPP in March 2017. The governor of the Cabo Delgado Province was closely involved in the definition of this MoU. It represents a major output of the Our Sea Our Life project and inscribes the initiative into a long-term partnership with the DPP (Annex 20): a crucial milestone for the sustainability of LMMAs in Cabo Delgado.

An OSOL Manual is drafted (for completion by December 2018) and establishes the decision-making process and Our Sea Our Life standards for best practice in developing co-management in Mozambique. The OSOL Manual represents the first of its type in Mozambique, and will guide future design and development of LMMAs.

The project received match funding from EC-ENRTP since December 2013 and until December 2018 to expand the project to 3 other sites from the same Province (Cabo Delgado). We also received extra match funding from Fondation Ensemble to complete the budget required to work on 5 sites simultaneously (replication to 3 other sites besides Lalane and Nsangue Ponta while we will keep on working on these two last villages until 2018). It secures the involvement of the 7 partners (Blue Ventures is a new partner since the Fondation Ensemble match funding) on the Our Sea Our Life project on a longer term and offers an ideal opportunity to have a greater impact locally in order to enhance socio-ecological resilience in coastal Mozambique.

6 Lessons learned

There have been some key lessons learned:

- VSLAs have been critical to improving food security, particularly following the rapid inflation of food prices recently in Mozambique.
- Temporary closures for octopus do not act as an effective prelude to other forms of management (such as permanent closures). They have their own issues and take time to get right. Thus, the strategy of starting with temporary closures and using them as a springboard to permanent closures after gaining trust of the communities turned out to be flawed. VSLAs are a far more effective way for building the trust of a community. Temporary closures are very different to permanent closures with very different functions. We found that the best way was to start with identifying the problems that the communities face, explore community objectives and then link solutions to those objectives.
- Terminology used around management interventions is critical. Fishers do not like to hear about what they cannot do as the result of an intervention. They like to hear what that intervention will do for them and how it links to the problems and patterns that they have seen and can relate to through their own local ecological knowledge.
- Scientific and biological information play a relatively minor role in decision making in communities. Local ecological knowledge linked to objectives and the impacts it is likely to have on their lives is far more important. And those impacts must make sense to them, rather than be based on scientific information.
    - As a result of the above two points, we had far greater success around uptake of the concept of permanent closures when we used the term “replenishment zone” (rather than no-take zone) and when we linked them to their local ecological knowledge by using a participatory process vs when we presented biological information in a workshop to show the scientific basis for them.
- A large number of partners for project delivery can be a strength but also a weakness.
- All community groups established have their own set of transaction costs, which can make establishing many groups unwieldy and unsustainable. VSLAs can be a far more effective way of ensuring broader engagement beyond the immediate management body, as long as you can tell simply the linkage between them. For example, simply asking the question about where people get their money from to save resulted in people talking about

fishing. From there it was far easier to link the concepts of VSLAs and CCPs in people's minds and make practical linkages between the two.
- The use of videos and exchange visits are powerful.
- The role of VSLAs in providing capital for home improvements and purchase of food is incredibly important and should not be overlooked. The temptation to try to convince VSLA members to use their savings and credit for investment in productive assets is high, but must be resisted as it shows a lack of understanding.

6.1 Monitoring and evaluation

In the very early phase of the OSOL project, we liaised with Darwin Initiative to modify the outcome indicators of the project logframe (Annex 40). We also requested a no-cost extension of the project end of 2015 to push back the project end to 31st March 2017 which was accepted (Annex 48).

The OSOL project is a collaborative work of 6 partners and that evolved to 7 partners since Fondation Ensemble match funds the project from October 2015 until December 2018. Project partners have met 6 to 8 times a year either in Mocimboa da Praia, Pemba, Maputo, South Africa, Kenya or in the UK for work planning and supervision purposes but also to attend conferences, workshops and participate to field visits. This collaborative dynamic was designed to respond to any challenge met by the AMA team in the field but also to make decisions about strategies of implementation.

A mid-term independent evaluation (required by the donors of the broader EU-funded project) was undertaken early March 2017 (Annex 7).

In the end, OSOL's strong collaborative approach that involves organisation both with robust scientific and strong community-led conservation backgrounds (Philippines, Kenya, Madagascar, Mozambique, etc.) made the success of the project. However this demanding partnership is contingent on clear definition of roles & responsibilities. All partners were involved in the preparation of this final report under the coordination of ZSL in charge of its consolidation.

6.2 Actions taken in response to annual report reviews

The project has acted on different points highlighted by the previous reviews:

- Community PES activities need to move ahead quickly (FY1 review). The information in Output 2 details more clearly the Community-PES activities that have progressed. Ultimately, we responded by moving this ahead more quickly and using the performance-based payments system even for "phase 1" support that was focused on building the capacity of the CCPs. This acted as a useful way to embed the process within operations.
- Clearer strategy to mainstream gender needs to be formulated (FY1 review). As detailed in the half year 2 report, we contracted a gender specialist at Bioclimate to develop a gender strategy for all activities, and to provide clear guidance and more detailed trainings. We have gradually increased the proportion of women involved in CCPs and VSLAs over time (from 16% to 24% in CCPs, and up to 38% in VSLAs). This gender specialist has reviewed approaches and strategies for co-management and VSLAs and has provided relevant advice, and was instrumental in informing how we work with intertidal harvesters without causing undue friction within communities. This is a long slow process to which there are no quick fixes, and we are seeing signs of moving positively in the right direction.
- Capacity development of local partners (FY1 review). Generally this has been a strength of the project. We improved AMA's financial capacity, with the introduction of double entry accounting system (Primavera). We have detailed knowledge transfer and capacity building in sections 4.6 and 4.7. One of the key findings of the independent mid-term review of the broader Our Sea Our Life strategy was around the degree of capacity development: "The development and capacity building of AMA is a reality and one of the great outputs of this project" (Annex 7).

- Has the project maintained a relationship with the Ministry for the Coordination of Environmental Affairs (MICOA) (FY3 review)? MICOA was replaced by MITADER in 2015, which also took on the responsibilities of some other Ministries, including taking Conservation from the Ministry of Tourism. A preliminary meeting was held with the Director of MICOA in Maputo by some of the Darwin team (AMA, CORDIO, Bioclimate) on 2nd November 2013 to introduce the project. The National Administration for Conservation Areas (ANAC) is under the jurisdiction of MITADER and is responsible for implementation of the Conservation Law (Law 16/2014). Other sectors relevant to the implementation of NBSAP include the new Ministry of Sea, Interior Waters and Fisheries (MIMAIP), also created in 2015. ADNAP are responsible for implementing the Fisheries Law. We are engaged most directly with ADNAP who have devolved responsibility to the Provinces through DPP. We are also engaging with ANAC to recognise the replenishment zones created by the co-management plans under the Conservation Law and how they contribute to the NBSAP. ANAC do not have a devolved authority and therefore are based solely in Maputo. We are continuing to work with the relevant authorities to aim for formal recognition of all these areas and formalise the process for authorizing these co-management plans (which has never previously been done in Mozambique) at an event in Maputo in November 2017.
- If positive trends are observed for IUCN red listed species by project end, can the project please comment on the likelihood of these changes being attributable to the project alone and being maintained after project close (FY3 review)? We have responded to this point in Indicator 4 of Section 3.2.

7 Darwin identity

The project has a clear identity of: “Nosso Mar, Nossa Vida” or “Our Sea Our Life”, which has now expanded beyond the Darwin project to encompass the wider remit of the broader EU-funded project. We retain clear identity on the Darwin project components and deliverables and ensure that Darwin is acknowledged verbally, in writing or visually in meetings, reports, presentations and informative materials (posters, panels, etc.).

We have increased increase the visibility of the project, together with the visibility of the Darwin contribution (logo used in all reports, presentations and publications) towards the project. Specifically we have:

- Our Sea Our Life film (https://www.youtube.com/watch?v=el3hsqXyqmk) and blog (http://blog.blueventures.org/divided-by-sea-united-by-vision/) on the community exchange visit to Madagascar around octopus temporal closures and resource management in March 2015.
- Podcast from the field visit in April/May 2015 http://yourlisten.com/jhuet/osol-expedition-mozambique-may-2015
- A project newsletter was produced in 2015 and 2016.
- Film (https://www.youtube.com/watch?v=XSHJ3Rornho) on the science components of the project prepared and shown at the WIOMSA symposium in October 2015. Presentations were also given by Our Sea Our Life team members at the WIOMSA symposium (http://symposium.wiomsa.org/).
- Our Sea Our Life film (https://www.youtube.com/watch?v=P7yuiF--nB4&feature=youtu.be) giving an overview of the project and a leaflet was prepared for EU Climate Week event hosted by the EU Delegation in Maputo, December 2015.
- Our Sea Our Life website established http://www.zsl.org/conservation/regions/africa/our-sea-our-life
- Our Sea Our Life Twitter account @OurSeaOurLife launched in November 2015 which had 71 followers by March 2016.
- Attended (Jérémy Huet, Nick Hill, Melita Samoilys, Kennedy Osuka, Sergio Rosendo, Mike Riddell, Adaoma Wosu, Ercilio Chauque, Jamen Mussa, Rachide Cachimo) in November 2015 the WIOMSA (Western Indian Ocean Marine Science Association) Scientific Symposium in South Africa for 3 days. There was one specific presentation on the project and 3 posters. The project was discussed at a number of workshop sessions.

8 Finance and administration

8.1 Project expenditure

Project spend (indicative) since last annual report	2016/17 Grant (£)	2016/17 Total actual Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)			2%	
Consultancy costs			-15%	The functioning costs o AMA were allocated to this budget line. The Mozambican currency suffered from a significant devaluation that causes an apparent underspent for this category.
Overhead Costs			-1%	
Travel and subsistence			3%	
Operating Costs			2%	
Capital items (see below)			-	
Others (see below)			-30%	Fuel for cars and motorbikes was mainly allocated to this budget line (see below). The underspent only represents the value of £456 and would fix any occasional computer breakdown which hopefully didn't happen.
TOTAL	54 949	54 935		

Staff employed (Name and position)	Cost (£)
Nicholas Hill – ZSL. Project lead	
Jamen Ali Mussa – AMA. Biologist	
Sergio Rosendo – FCSH-UNL. Socioeconomic coordinator	
Jaime Abdala – AMA. VSLA/livelihoods coordinator	
Abdul M. Juma – AMA. Driver.	
Mamudo Abudo – AMA. Driver	
Saide Amada – AMA. Horticulture extensionist.	
Angelina Tayobo – AMA. Community extensionist	
Ercilio Chauque – AMA. Project coordinator	
Melita Samoilys – Cordio. Biodiversity coordinator.	
Mike Riddell – Bioclimate. Community-PES coordinator	

Manuel Bucuane – AMA. Finance	
Domingos Andre – AMA. Community extensionist	
Administration team - AMA	
TOTAL	**23 191.70**

Other items – description	**Other items – cost (£)**
Fuel (car, motorbike) Computer maintenance Batteries	
TOTAL	920.66

8.2 Additional funds or in-kind contributions secured

Source of funding for project lifetime	**Total (£)**
European Union (December 2013 - March 2017)	
Fondation Ensemble (October 2015 - March 2017)	
In-kind contributions of a Bioclimate intern who conducted fieldwork with octopus fishermen and fisherwomen and conducted an analysis on the octopus maturity data collected between April 2014 and March 2017; this work is being written up as a publication, and will be shared with government, communities and NGOs in an appropriate format (transport and subsistence)	
TOTAL	**1 212 799**

Source of funding for additional work after project lifetime	**Total (£)**
European Union (April 2017-December 2018)	
Fondation Ensemble (April 2017 – December 2018)	
TOTAL	**686,761**

8.3 Value for Money

Northern Mozambique is a very expensive and challenging place to operate. We provided value for money through:

1. Keeping costs low through the use of budget accommodation for international staff whilst in-country. Full partner meetings of all partners were held around conferences or events that everyone was likely to be involved in to help keep costs low. Whatsapp and email were communication methods of choice.
2. Consolidating and sustaining the project outcomes through co-financing with EU and Fondation Ensemble which means that activities will continue to be supported to December 2018 and that we could replicate to four additional sites.
3. Significant investment in building the capacity of the AMA team. More technically oriented AMA staff had direct one-to-one mentors with international experts. Through travelling to conferences and trainings, including on-the-job training the capacity has substantially increased. Additionally, the project improved financial management systems in AMA.

4. Effective engagement of the local authorities. AMA are exceptionally good at this. It is not an easy task in Mozambique, and particularly given the change in government and the reshuffle of departments that occurred during the project period. This willhelp secure the legacy of the project.
5. Village Agents help to spread VSLAs.
6. VSLAs are a proven self-sustaining model and low cost to implement.
7. A number of tools and knowledge products are in development as a result of the project and will be refined and completed following the experiences of replication by the end of 2018. They will represent best practice in the context of northern Mozambique, and will make it easy to replicate the model.

Annex 1 Project's original (or most recently approved) logframe, including indicators, means of verification and assumptions.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: Social and ecological resilience is improved for Mozambique's coastal poor communities, including women, as a result of marine biodiversity conservation through co-management and increased livelihood security			
Outcome: The project will develop the mechanisms and capacity for incentivising and sustaining co-management of marine and coastal areas in northern Mozambique in a way that involves women and diversifies the livelihood base of coastal communities that are dependent on marine resources. Immediate beneficiaries will be two pilot coastal villages between the Rovuma River and Mocímboa da Praia, Mozambique, where wellbeing will be enhanced due to increased livelihood security and an improvement in the condition of marine biodiversity. Other key beneficiaries will be local NGOs and government authorities who will have the mechanisms and capacity to replicate this co-management approach.	1. Community fisheries councils (CCPs) in two pilot villages (one CCP per village) have developed and are actively implementing co-management plans (from a baseline of 0) covering key fisheries species and at least 200 ha of marine and coastal areas by year 3. 2. At least 30% of the 25 members per CCP and elected officials in the two pilot villages are women (representing 500 intertidal harvesters) by year 3, from a baseline of 0%. 3. Decreasing trends in biomass of key fisheries species (as identified in co-management plans in year 1 with baselines set through underwater visual census in year 1and key biodiversity metrics halted or reversed within pilot CCP management areas by year 3. 4. Increasing trends in populations of 5 flagship IUCN red list species within CCP management areas by year 3. 5. Set baseline in year 1 through household baseline surveys and achieve an average of at least 30%		CCPs and communities remain interested in engaging with this process. The private-sector remain interested in providing additional funding for Community-PES schemes to support activities in the co-management plans (we have already received expressions of interest from some luxury tourism operators), and there is compatibility between the ecosystem services the private sector is willing to finance and CCPs are willing/able to provide through their co-management plans. Appropriate indicators and targets for releasing PES funds that can be accurately monitored and are achievable within a reasonable timeframe can be identified and agreed with CCPs in a marine context. Appropriate market linkages and income-generating opportunities can be established that are relevant to the local culture and environment.

	improvement in locally-defined food security indicators for the households (n=500 households) within the two pilot villages by year 3, including measures such as the number of meals taken with protein, expenditure on food, and number of meals skipped by mothers. 6. Set baselines in year 1 through household baseline surveys and achieve an average of at least 20% improvement in locally-defined wellbeing scores and material style of life indexes for households (n=500 households) within the two pilot villages by year 3. Wellbeing will be assessed using subjective quality of life approaches applied to fisheries (Britton and Coulthard, 2013, Coulthard et al 2011) and quantitative indicators e.g. the proportion of households with tin roofs (currently at around 20% for the area).At least 150 fishing households from the pilot communities report an increase in the number of non-fishing occupations contributing income to the household from an average of 0 to 1 (agriculture is generally a non-monetary occupation within this area) by year 3. 8. At least 250 households (from a total of 500 households across pilot villages) engaged in VSLAs with an average of £17 each in savings by year 3, from a baseline of 0		Elite capture, corruption and theft do not fundamentally undermine PES, VSLAs and enterprise development. These interventions are specifically designed to ensure transparency, which in turn reduces these risks.

	households with any financial savings. 9. The project approach is voluntarily replicated at a minimum of one new site by local NGOs and local authorities by year 3, from a baseline of 0 sites in Mozambique that integrate Community-PES with co-management and livelihood development activities.		
Outputs: **1**. CCPs with three user groups and integrating women formally established in two pilot villages and supported to develop and implement co-management plans	1. Two pilot villages have CCP Statutes approved by government authorities and published by year 1. 2. Fishing review for the two pilot villages with biological and socioeconomic assessments produced and submitted in appropriate formats to CCPs, IDPPE and DSEAs for review (CCPs will require verbal and graphical formats due to low literacy rates, while IDPPE and DSEAs will require full written reports) by year 1. 3. Co-management plans established by CCPs through participatory planning with three user groups (intertidal, reef and pelagic fisheries) covering key fisheries species and at least 100 ha of marine and coastal habitat in each of the two pilot villages by year 2. 4. Intertidal user groups consist of women and represent at least 30% of CCP membership and officials by year 2. 5. Peer review paper submitted for publication on project achievements	Census survey and livelihood survey reports. Biological survey report. AMA monthly technicial reports. Workshop report.	Communities have the will to manage their natural resources effectively Government authorities remain consistently agreeable to proposed co-management arrangements

	in halting or reversing the current declines in key biodiversity indicators and biomass of key fisheries species within the two pilot villages.		
Activities 1.1. Site selection and approvals, including CCP establishment and/or formalisation where necessary. 1.2. Establishment of biological and fisheries baselines through collection, analysis and feedback of data from underwater visual censuses, creel surveys, community perception surveys and secondary sources. 1.3. Identification and formation of resource user groups, including intertidal resource harvesters consisting of women, and integration into CCPs. 1.4. Workshop, training-of-trainers and advocacy on community-based management approaches for CCPs, local NGOs, government agencies and the private sector, including cross-visits where relevant. 1.5. Participatory development of co-management plans for user groups and mapping of management areas. 1.6. Implementation of co-management plans (linked to output 2). 1.7. Biological and fisheries impact assessments through collection, analysis and feedback of data from underwater visual censuses, creel surveys and community perception surveys. 1.8. Reporting and preparation and submission of peer-reviewed paper.			
2. Equitable and robust Community-PES schemes reinforcing the implementation of co-management plans in the two pilot villages, and supported by local authorities and private sector actors.	1. PES-eligible management activities agreed and integrated into co-management plans of CCPs in the two pilot villages by year 2. 2. Participatory monitoring system for linking management activities and outcomes to performance-based PES developed by year 2. 3. Workshop on marine and coastal co-management and Community-PES held in partnership with the IUCN Fair Coasts Initiative and government authorities, and attended by the private sector by year 2. 4. CCPs in the 2 pilot villages enter into PES contracts with AMA stating management activities and payment	Bioclimate's reports Advisory group meeting reports	Money earmarked for PES in the budget is sufficient to provide incentives for implementation of agreed PES-eligible management and livelihood activities. Private sector actors recognise the benefits for their business of supporting Community-PES and have the financial means to invest in Community-PES. PES systems are sufficiently robust that they are not undermined bycorruption resulting in a lack of external investment

	terms linked to monitoring outcomes by year 2. 5. CCPs in the 2 pilot villages earning and sharing PES payments worth 8,000 by year 2 and 16,000 by year 3 in accordance with benefit 6haring agreements and benefiting all fishing households within the two villages. 6. MOUs signed with minimum of 2 private sector supporters of Community-PES (e.g. luxury tourismoperators) by year 3. 7. Community-PES manual incorporating lessons learned produced and distributed to local NGOs and government authorities in northern Mozambique by year 3.		CCPs can agree equitable PES benefit sharing arrangements. Appropriate monitoring targets, indicators, performance thresholds and payment levels can be agreed for timeframes that are acceptable to CCPs and local fishers.
Activities 2.1. Preparation and delivery of PES training course to two pilot villages and local partners (AMA, IDPPE, DSEA). 2.2. Agreement at village level and integration of PES-eligible management activities into co-management plans. 2.3. Development of monitoring system for linking management activities and outcomes to PES. 2.4. Development of PES benefit sharing arrangements with 2 CCPs. 2.5. Establishment of PES governance infrastructure and formation of PES Trust Fund and Committee. 2.6. Participatory monitoring and delivery or commensurate PES payments to two CCPs. 2.7. Stakeholder engagement workshop in partnership with Fair Coasts Initiative and including government agencies and the private sector. 2.8. Agreement MOUs with private sector supporters. 2.9. Monitoring of benefit sharing and evaluation of impacts of Community-PES. 2.10. Document of results and preparation of Community-PES manuals for distribution to government authorities and partners. 2.11. Community-PES wrap-up workshop – lessons learned and results.			
3. VSLAs established and Village Agents trained in two pilot villages, increasing the capacity of villagers to manage income from PES and improve living conditions, and	1. At least one VSLA with 20-25 members established through CCPs in each of the project sites by year 1. 2. At least two additional VSLAs	AMA monthly technical reports	Sufficient numbers of households are interested and able to engage in VSLAs.

supporting investment in new sustainable enterprises.	established in each site through Village Agents by year 2, taking the total number of households engaged in VSLAs to 150. 3. Households involved in VSLAs see improvements in living conditions (measured through socioeconomic surveys as material style of life and locally defined wellbeing indicators that are identified during baseline socioeconomic/wellbeing assessment) by year 3. 4. Female household heads report reduced frequency in the use of food coping strategies, reflecting improved food security, by year 3. 5. Households engaged in VSLAs saving at least US$20 per year and investing 25% of savings and loans in new enterprises (non-capture fisheries and non-destructive) by year 3.		Households that engage in VSLAs include fishers.
Activities 3.1. Workshop and training-of-trainers on VSLAs. 3.2. Establishment of socioeconomic baselines through collection, analysis and feedback of data from household surveys and participatory rural appraisal. 3.3. Establishment and fostering of first VSLAs in the two pilot villages. 3.4. Replication of VSLAs through Village Agent model. 3.5. Socioeconomic impact assessment through collection, analysis and feedback of data from household surveys and participatory rural appraisal. 3.6. Reporting and preparation and submission of peer-reviewed paper.			
4. New sustainable enterprises developed through the provision of training and linking to relevant markets, increasing levels of livelihood diversification.	1. Two new enterprise opportunities in each of the two pilot villages by year 3 2. 50% of fishing households engaged in an increased number of	Bioclimate's report. Horticulture: AMA monthly technical reports.	Appropriate enterprises can be identified that can absorb sufficient labour and are more economical than fishing

	occupations per household (from 2 to 3 on average) by year 3. 3. 50% of fishing households report a decrease in the relative importance of capture fisheries to household income by year 3 (as identified by ranking the contribution made by all household occupations to household income). 4. 50% of fishing households report a decrease in the relative importance of capture fisheries to household food production by year 3 (as identified by ranking).		Households that engage in new enterprises include fishers.
Activities 4.1. Participatory assessment of local needs and enterprise opportunities. 4.2. Establishment of market linkages through identification and workshop with relevant market actors and experts (e.g. The FlipFlop Recycling Company, tourism operators). 4.3. Training for identified enterprise opportunities. 4.4. Trialling of new enterprise opportunities. 4.5. Development of business models for new enterprise opportunities. 4.6. Enterprise wrap-up workshop – lessons learned and results. 4.7. Socioeconomic impact assessment (in combination with Activity 3.5).			

Annex 2 Report of progress and achievements against final project logframe for the life of the project

Project summary	Measurable Indicators	Progress and Achievements
Impact: Social and ecological resilience is improved for Mozambique's coastal poor communities, including women, as a result of marine biodiversity conservation through co-management and increased livelihood security		The Our Sea Our Life project has developed a robust, equitable and replicable community-PES scheme that has empowered two coastal communities (including women) with high dependence on marine resources to improve their socio-ecological resilience. Fisheries Community Councils (CCPs) are the community organisations in charge of managing fisheries through a participatory planning that involves all of the community members. VSLAs are a critical element for increasing trust of the implementing agency, which enables progression into discussions of conservation interventions. They are also a critical element for increasing the resilience of coastal communities. It is expected that we will see increases in biodiversity and wellbeing indicators as a result of co-mangement by the end of 2018 (end of the co-financing for Our Sea Our Life). Co-financing from the EU and Fondation Ensemble until December 2018 will consolidate the project outcomes enabled and piloted by Darwin Initiative and secure the socio-ecological resilience of the coastal communities to overcome poverty and integrate conservation and development in north Mozambique.
Outcome The project will develop the mechanisms and capacity for incentivising and sustaining co-management of marine and coastal areas in northern Mozambique in a way that involves women and diversifies the livelihood base of coastal communities that are dependent on marine resources. Immediate beneficiaries will be two pilot	1. Community fisheries councils (CCPs) in two pilot villages (one CCP per village) have developed and are actively implementing co-management plans (from a baseline of 0) covering key fisheries species and at least 200 ha of marine and coastal areas by year 3. 2. At least 30% of the 25 members per CCP and elected officials in the two pilot villages are women (representing 500 intertidal harvesters) by year 3, from a baseline of 0%.	The project has successfully developed the mechanisms and capacity [an approach] for incentivizing effective co-management of marine and coastal areas in northern Mozambique in a way that involves women and is pro-poor. This approach has been applied to two pilot coastal villages between the Rovuma River and Mocímboa da Praia, Mozambique, resulting in 570 ha of marine and coastal habitat (>200 ha target) being actively managed by two CCPs with women representing 24% of CCP members (>30% target). Wellbeing has by most measures increased, with VSLAs clearly playing an important role in

coastal villages between the Rovuma River and Mocímboa da Praia, Mozambique, where wellbeing will be enhanced due to increased livelihood security and an improvement in the condition of marine biodiversity. Other key beneficiaries will be local NGOs and government authorities who will have the mechanisms and capacity to replicate this co-management approach.	3. Decreasing trends in biomass of key fisheries species (as identified in co-management plans in year 1 with baselines set through underwater visual census in year 1and key biodiversity metrics halted or reversed within pilot CCP management areas by year 3. 4. Increasing trends in populations of 5 flagship IUCN red list species within CCP management areas by year 3. 5. Set baseline in year 1 through household baseline surveys and achieve an average of at least 30% improvement in locally-defined food security indicators for the households (n=500 households) within the two pilot villages by year 3, including measures such as the number of meals taken with protein, expenditure on food, and number of meals skipped by mothers. 6. Set baselines in year 1 through household baseline surveys and achieve an average of at least 20% improvement in locally-defined wellbeing scores and material style of life indexes for households (n=500 households) within the two pilot villages by year 3. Wellbeing will be assessed using subjective quality of life approaches applied to fisheries (Britton and Coulthard, 2013, Coulthard et al 2011) and quantitative indicators e.g. the proportion of households with tin roofs (currently at around 20% for the area).At least 150 fishing households from the pilot communities report an increase in the number of non-fishing occupations contributing income to the household from an average of 0 to 1 (agriculture is generally a non-monetary occupation within this area) by year 3. 8. At least 250 households (from a total of 500 households across pilot villages) engaged in VSLAs with an average of £17 each in savings by year 3,	increasing food security despite issues with inflation and increasing material style of life. As a result of the economic uncertainty and rapidly changing landscape for the private sector in norther Cabo Delgado, we have not yet succeeding in finding a private-sector investment for sustaining co-management of marine and coastal areas into the longer term. As a result of the practical challenges of working in the far north of Cabo Delgado (see section 2), we also have not been able to implement the co-management interventions for sufficient time to see an improvement in the condition of marine biodiversity. However, by raising co-financing from the European Union and Fondation Ensemble which continues to the end of 2018, we have been able to secure the outcome of the project and will be able to assess the biological and socioeconomic impact of the co-management approach. Additionally, through this co-financing we have extra resources and a plan in place to redefine the approach for seeking sustainable financing. The co-management approach that we have developed is well embedded with local and national authorities, is being replicated in four additional Our Sea Our Life sites (>1 targeted), and has attracted the interest of new donors for the period post-2018. All of this will ensure that the outcome of this project will be sustained and that we will have the opportunity to assess the effectiveness of the approach developed 1. CCPs have developed and are actively implementing co-management plans covering key fisheries species and 570 ha (>200 ha target) of marine and coastal areas. 180 ha are in replenishment zones (no-take) and 390 ha in temporary closures. 2. 24% of the CCP members in the two pilot villages are women. 3. Too early to tell – will be assessed in 2018, made possible through the co-financing.

	from a baseline of 0 households with any financial savings. 9. The project approach is voluntarily replicated at a minimum of one new site by local NGOs and local authorities by year 3, from a baseline of 0 sites in Mozambique that integrate Community-PES with co-management and livelihood development activities.	4. Too early to tell – but CPUE of three flagship IUCN red list species have improved, and effective implementation of co-management plans are expected to deliver further improvements. Effective implementation is made possible through the co-financing. 5. Locally defined food security indicators improved by 52% in Lalane and 44% in Nsangue Ponta (Table 4 and Annex 39) 6. There were >100% improvements in material style of life as evidenced by increases in zinc roofs, solar panels and mattresses. Subjective wellbeing increased in Lalane but decreased in Nsangue Ponta. 7. There were no increases in the number of non-fishing occupations contributing income for non-fishing households (Table 10 and Annex 39) 8. The project fell short of the 250 target for number of households engaged in VSLAs. However, we exceeded the savings target, with an average savings level of US$107 per member, and have village agents trained who are in the process of initiating a further six VSLAs in Lalane and Nsangue Ponta (potentially a further 150 members if at full capacity). 9. Through the co-financing of European Union and Fondation Ensemble we are currently replicating this approach in four new sites. Additionally, materials for replication are in development due to be completed by 2018, which will allow further replication
Output 1. CCPs with three user groups and integrating women formally established in two pilot villages and supported to develop and implement co-management plans	1. Two pilot villages have CCP Statutes approved by government authorities and published by year 1. 2. Fishing review for the two pilot villages with biological and socioeconomic assessments produced and submitted in appropriate formats to CCPs, IDPPE and DSEAs for review (CCPs will require verbal and graphical formats due to low literacy rates, while IDPPE	Community Fisheries Councils (CCPs) in Lalane and Nsangue Ponta (the two Darwin communities) have had their statutes approved by the District Service of Economic Activities (DSEA) and the Provincial Directorate of Fisheries (DPP). These CCPs have completed the development of co-management plans through participatory planning that involved Village Savings and

	and DSEAs will require full written reports) by year 1. 3. Co-management plans established by CCPs through participatory planning with three user groups (intertidal, reef and pelagic fisheries) covering key fisheries species and at least 100 ha of marine and coastal habitat in each of the two pilot villages by year 2. 4. Intertidal user groups consist of women and represent at least 30% of CCP membership and officials by year 2. 5. Peer review paper submitted for publication on project achievements in halting or reversing the current declines in key biodiversity indicators and biomass of key fisheries species within the two pilot villages.	Loan Associations (VSLAs) and village focal groups. Although the formal recognition of these co-management plans takes time in Mozambique, which has involved OSOL working with relevant authorities to define the process for formalisation, the CCPs are working with local authorities to implement these co-management plans, which protect 180ha of critical production habitat in "replenishment zones" that are strictly no-take, and 390ha of shallow gleaning areas in temporary closures for improving the income from octopus and bivalve fisheries. Women form part of at least 24% of CCP membership and officials, which is a significant improvement on the norm, but short of our target of 33%. An MoU between AMA and DPP was signed in March 2017 formally recognizing the project approach to co-management and committing to work together to sustain the implementation of these co-management plans. 1. Lalane and Nsangue Ponta have their CCP Statutes approved by DSEA and DPP. They remain with the National Fisheries Authorities for final approval and publishing 2. Biological and socioeconomic assessments of the 2 pilot villages were produced, submitted and discussed with CCPs, DPP and National Fisheries Authorities in a workshop. These discussions improved understanding around the impacts of different management interventions with the specific contexts of the villages. However, they did not increase community-level support for the concept of no-take zones, which were rejected as a concept by the community attendees. Following the workshop, ZSL and AMA trialled a rebrand of the concept using the phrase "replenishment zones", and found that games linked to local knowledge along with this concept drove a massive surge in support. This quickly resulted in the adoption of of "replenishment zones" by Nsangue Ponta and Lalane and incorporation into their proposed co-management plans –

		the first communities to do so in the OSOL project 3. Two co-management plans established by CCPs through participatory planning that involved VSLAs and village focus groups. These co-management plans protect 180ha of critical production habitat in "replenishment zones" that are strictly no-take, and cover 390ha of shallow gleaning areas in temporary closures for improving the income from octopus and bivalve fisheries. 4. Women represent 24% of CCP membership and officials of the two pilot village. 5. The logistical challenges presented to the project meant that we were only able to progress to the point of finalizing and starting the implementation of co-management plans in Lalane and Nsangue Ponta during the timeframe of the Darwin Initiative project. Assessments on the efficacy of these interventions in halting or reversing the current declines in key biodiversity indicators and biomass of key fisheries species will occur in 2018, thanks to co-financing to the broader Our Sea Our Life project. However, in the mean time we have progressed an integrated assessment of coastal fisheries in northern Mozambique, which is due for submission by Q3 of 2017
1.1. Site selection and approvals, including CCP establishment and/or formalisation where necessary.		The 2 pilot villages have their CCP Statutes approved by DSEA and DPP. National Fisheries Authorities will sign and publish the CCP Statutes by August 2017.
1.2. Establishment of biological and fisheries baselines through collection, analysis and feedback of data from underwater visual censuses, creel surveys, community perception surveys and secondary sources.		Biological and socioeconomic assessments of the two pilot villages were produced, submitted and discussed with CCPs, Provincial and National Fisheries Authorities. These discussions improved the understanding of the CCP members about the local socio-economic conditions which is essential at community level for the decision-making process during the development of the co-management plans. Following the meetings with Fisheries Authorities, a MoU was signed between AMA and DPP: a crucial milestone for the sustainability of LMMAs in Cabo Delgado.

1.3. Identification and formation of resource user groups, including intertidal resource harvesters consisting of women, and integration into CCPs.		The establishment of such groups comes with a cost that represents a barrier to their replication for other resource users in other communities. Engaging with the VSLAs simplifies community interventions, broadens community engagement and involves the most vulnerable members of the communities.
1.4. Workshop, training-of-trainers and advocacy on community-based management approaches for CCPs, local NGOs, government agencies and the private sector, including cross-visits where relevant.		See 1.2
1.5. Participatory development of co-management plans for user groups and mapping of management areas.		2 co-management plans established by CCPs through participatory planning that involved VSLAs and village focus groups are covering key fisheries species and 570 ha of marine and coastal habitat (of which 180 ha are no-take zones) of the two pilot villages.
1.6. Implementation of co-management plans (linked to output 2).		Implementation has commenced and enforcement is ongoing.
1.7. Biological and fisheries impact assessments through collection, analysis and feedback of data from underwater visual censuses, creel surveys and community perception surveys.		Monitoring is ongoing. Impact assessment due in 2018, made feasible by co-financing.
1.8. Reporting and preparation and submission of peer-reviewed paper.		A peer review paper discussing about fisheries co-management strategies in the context of north Mozambique will be submitted for publication in August 2017.
Output 2. Equitable and robust Community-PES schemes reinforcing the implementation of co-management plans in the two pilot villages, and supported by local authorities and private sector actors.	1. PES-eligible management activities agreed and integrated into co-management plans of CCPs in the two pilot villages by year 2. 2. Participatory monitoring system for linking management activities and outcomes to performance-based PES developed by year 2. 3. Workshop on marine and coastal co-management and Community-PES held in partnership with the IUCN Fair Coasts Initiative and government authorities, and attended by the private sector by year 2.	The community-PES mechanism has been developed with a programme profile and programe manual, and is being implemented in Lalane and Nsangue Ponta to support the CCP activities with village agreements in place and some already completed. A governance body has been established with associated terms of reference, and meets annually to provide oversight of the system and agree an annual budget. The Community-PES mechanism currently has a budget of £31,600 from project funds that have been allocated to support the CCPs' co-management activities until September 2017, thanks to the broader co-financing with EU and Fondation Ensemble. Due to the rapidly

	4. CCPs in the 2 pilot villages enter into PES contracts with AMA stating management activities and payment terms linked to monitoring outcomes by year 2. 5. CCPs in the 2 pilot villages earning and sharing PES payments worth 8,000 by year 2 and 16,000 by year 3 in accordance with benefit 6haring agreements and benefiting all fishing households within the two villages. 6. MOUs signed with minimum of 2 private sector supporters of Community-PES (e.g. luxury tourismoperators) by year 3. 7. Community-PES manual incorporating lessons learned produced and distributed to local NGOs and government authorities in northern Mozambique by year 3.	changing and uncertain economic climate in northern Mozambique as oil and gas plans have changed in response to global fuel prices and a change of government in Mozambique, we have not been able to enter into agreements with the private sector during the period of the Darwin project. Due to this uncertainty, we are currently enacting a plan that brings in additional expertise to redefine the plan for bringing in private sector funding and explore opportunities with private and public sector partners outside of Cabo Delgado. In the mean time we have sufficient project funds to operate the Community-PES mechanism until at least the end of 2018, and we have already received interest from other donors to support this mechanism post-2018: 1. PES-eligible management activities have been agreed and integrated into the co-management plans of Lalane and Nsangue Ponta. 2. Participatory monitoring system links up payment to expected outcomes: a CCP diagnostic tool assesses the functioning and governance of the CCPs for phase 1 support (building the capacity and readiness of CCPs to implement co-management plans). Phase 2 support is monitored against activity-based indicators designed by AMA and the CCPs and described in the co-management agreements. 3. An Advisory Group (co-management technical committee) was formed to design the Sustainable Financing Mechanism (governance arrangements for the delivery of performance-based support) with the scope to operate LMMAs in partnership with NGOs and government authorities. Once developed, the Steering Committee was formed out of this group, providing the governance structure for the sustainable financing mechanism. We have met separately with private sector stakeholders in the area to ensure the system is compatible with any potential investment from them. However, whilst they are not

		investing in any long-term activities in the area those conversations have remained exploratory and to keep people informed of our progress 4. CCPs in Nsangue Ponta and Lalane entered into village agreements for two different phases of support. These village agreements provide detail of the activities to be undertaken and associated costs, a description of roles and responsibilities, payment terms and the indicators and means of verification. 5. £3,200 was been spent in performance-based support during the last quarter of 2016 in Lalane and Nsangue Ponta, following the guidelines of the Programme Manual. In the last Steering Group meeting a further £31,600 was budgeted for the period March-September 2017 for all OSOL sites. This budget is funded by project funds from Fondation Ensemble and the EU, who will carry on contributing to performance-based support until December 2018. 6. No MoUs have been signed with private sector supporters due to economic uncertainty in the area that has affected the ability of the private sector organisations to invest. The tourism companies with direct interests in the areas concerned have stopped operating due to the impact of the oil and gas sector developments and economic uncertainty in the area. The oil and gas developments have been largely on hold due to a drop in the price of oil and political changes, so the gas companies and their suppliers are not currently making investments in the area, and those companies setting up to be ready for the developments to start are cash-strapped for now. Instead, we are enacting a plan to bring in funds using other approaches (e.g. the VSLA Environmental Funds that were successfully piloted in the Philippines and are used in the Darwin project there, fishing licences and fines, and from the SDAE) and we are consulting some external experts to advise on a new

		strategy for approaching the private sector. We have already received interest from some donors who wish to support a continuation and expansion of our work in the area post-2018 (when co-financing also finishes). We are therefore remain confident that we will be able to achieve this target by end of 2018. 7. Community-PES manual in prep and will be completed by December 2018 drawing on experiences from replication across broader Our Sea Our Life sites.
2.1. Preparation and delivery of PES training course to two pilot villages and local partners (AMA, IDPPE, DSEA).		Completed.
2.2. Agreement at village level and integration of PES-eligible management activities into co-management plans.		PES-eligible management activities are agreed and integrated into the co-management plans of the 2 pilot villages implemented by the CCPs.
2.3. Development of monitoring system for linking management activities and outcomes to PES.		CCPs in the 2 pilot villages enter into co-management agreements (rather than "PES contracts") split into 2 phases of support to the CCPs and co-management plans with description of roles and responsibilities, payment terms and monitoring outcomes. Participatory monitoring system links up payment to expected outcomes: a CCP diagnostic tool assesses the functioning and governance of the CCPs for phase 1 support. Phase 2 support is monitored against activity-based indicators designed by AMA and the CCPs and described in the co-management agreements.
2.4. Development of PES benefit sharing arrangements with 2 CCPs.		See 2.3
2.5. Establishment of PES governance infrastructure and formation of PES Trust Fund and Committee.		An Advisory Group (co-management technical committee) was formed to design the Sustainable Financing Mechanism (governance arrangements for the delivery of performance-based support) with the scope to operate LMMAs in partnership with NGOs and government authorities. Private sector stakeholders (tourism operators, oil & gas companies) were met separately because their potential capacity to bring money in the Sustainable

		Financing Mechanism entails different governance arrangements and thus requires different approaches.
2.6. Participatory monitoring and delivery or commensurate PES payments to two CCPs.		£3,200 has been spent in the last quarter of 2016 in the 2 pilot villages as per the guidelines of the Programme Manual. A further £31,600 is budgeted for the period March-September 2017 for the 2 pilot villages and also for 4 sites of the broader EU-funded project. This budget is match-funded by Fondation Ensemble and the EU that will carry on contributing to performance-based support until December 2018.
2.7. Stakeholder engagement workshop in partnership with Fair Coasts Initiative and including government agencies and the private sector.		See 2.5
2.8. Agreement MOUs with private sector supporters.		No MoUs have been signed with private sector supporters due to the changing and uncertain economic landscape in the area which means private sector actors are not in a position to invest.
2.9. Monitoring of benefit sharing and evaluation of impacts of Community-PES.		Ongoing.
2.10. Document of results and preparation of Community-PES manuals for distribution to government authorities and partners.		A Programme Manual will be ready in September 2017 and will represent the first of its type in Mozambique, and could guide future design and development of LMMAs in Mozambique.
2.11. Community-PES wrap-up workshop – lessons learned and results.		Postponed to end of 2018.
Output 3. VSLAs established and Village Agents trained in two pilot villages, increasing the capacity of villagers to manage income from PES and improve living conditions, and supporting investment in new sustainable enterprises.	1. At least one VSLA with 20-25 members established through CCPs in each of the project sites by year 1. 2. At least two additional VSLAs established in each site through Village Agents by year 2, taking the total number of households engaged in VSLAs to 150. 3. Households involved in VSLAs see improvements in living conditions (measured through socioeconomic surveys as material style of life and locally defined wellbeing indicators that are identified during baseline socioeconomic/wellbeing assessment) by year 3.	After a challenging start, VSLAs have been an extremely successful element of OSOL, with over 153 households enrolled in seven VSLAs in Nsangue Ponta and Lalane in 2016. In 2017 this number continues to increase through the Village Agents. It was harder to find willing Village Agents due to the lack of literacy within the villages and challenges with the concept of voluntary community work within the culture of these communities. However, we have now trained one Village Agent per village, and they are replicating the VSLA model having formed six new groups. The Village Agents also act as community champions for

	4. Female household heads report reduced frequency in the use of food coping strategies, reflecting improved food security, by year 3. 5. Households engaged in VSLAs saving at least US$20 per year and investing 25% of savings and loans in new enterprises (non-capture fisheries and non-destructive) by year 3.	co-management and link the VSLAs to the CCPs as they are both CCP members. Despite initial reluctance to engage in VSLAs, members are now saving on average US$107 per cycle, material style of life has improved and locally defined incidences of food insecurity have reduced. However, whilst subjective wellbeing increased in Lalane, it decreased in Nsangue Ponta apparently due to food security concerns (in contrast to the food security results) because of rapid increases in the price of food across northern Mozambique. 5% of total savings were invested in enterprises, whereas 53% of loans were invested in small businesses. However, only 25% of VSLA members across all OSOL sites had taken loans at the time of writing, with one of the major reasons for not taking a loan being a lack of opportunities for investment 1.&2. At the time of writing, four VSLAs were currently active across Lalane and Nsangue Ponta, with at least a further six in the final stages of being formed. One Village Agent has been trained per community, each of which are CCP members. Village Agents are champions that connect co-management activities to small-scale businesses and form new VSLAs in order to improve the success of LMMAs. Six VSLAs are currently in formation by the Village Agents are to come soon in a community sharing fishing grounds with Nsangue Ponta 3. Community banking is having a positive impact in Lalane and Nsangue Ponta as it empowers the VSLA members, especially women, by improving their well-being and providing opportunities to invest in small-scale businesses. We have learnt this through anecdotal information (Annex 35) but also through the final socioeconomic survey. Material Style of Life indicators show there is higher ownership of zinc roofs, solar panels and mattresses among VSLA households. 4. The repeat survey showed that situations associated with food insecurity have become less common in the two

		pilot villages. VSLA savings are often used to buy basic necessities, including food. 5. The average savings is US$ 107 per VSLA member (target was US$20) in the most recent share-out on a survey undertaken to 87 VSLA members across the 6 villages of the broader EU-funded project. 5% of the total savings volume was invested in small-scale businesses (fish trade and small shop), whilst 53% of loans were invested in small-scale businesses.
3.1. Workshop and training-of-trainers on VSLAs.		Completed.
3.2. Establishment of socioeconomic baselines through collection, analysis and feedback of data from household surveys and participatory rural appraisal.		Completed.
3.3. Establishment and fostering of first VSLAs in the two pilot villages.		There are currently 4 VSLAs (7 in 2016) and the number of households benefitting from VSLAs ranges from 85 to 150. Village Agents are community champions that connect co-management activities to small-scale businesses and form new VSLAs in order to improve the success of LMMAs. 1 VSLA has already been formed by Lalane's Village Agent and 5 others are to come soon in a community sharing fishing grounds with Nsangue Ponta.
3.4. Replication of VSLAs through Village Agent model.		See 3.3
3.5. Socioeconomic impact assessment through collection, analysis and feedback of data from household surveys and participatory rural appraisal.		Completed
3.6. Reporting and preparation and submission of peer-reviewed paper.		Postponed to 2018.
Output 4. New sustainable enterprises developed through the provision of training and linking to relevant markets, increasing levels of livelihood diversification.	1. Two new enterprise opportunities in each of the two pilot villages by year 3 2. 50% of fishing households engaged in an increased number of occupations per household (from 2 to 3 on average) by year 3. 3. 50% of fishing households report a decrease in the relative importance of capture fisheries to household	Market-based opportunities have been more limited in the project sites than we anticipated. The severe problems with road transport and boat (see section 2) acts as a strong barrier to markets. The project has supported horticulture improvements in the Nsangue Ponta and Lalane, diversifying their vegetable production and providing access to improved seed. OSOL is also trialling

	income by year 3 (as identified by ranking the contribution made by all household occupations to household income). 4. 50% of fishing households report a decrease in the relative importance of capture fisheries to household food production by year 3 (as identified by ranking).	oyster farming methods in Quiwia (site from the broader EU-funded project) which will be replicated to other OSOL sites if successful. With unreliable access to the main markets in Mocimboa da Praia or Palma, horticulture is most likely to contribute to increased food security, and higher value fish that can be dried or salted will remain the main source of income until roads are significantly improved. We have also had to conduct significant trials for horticulture, and continue to do so for oyster aquaculture. Therefore they have not had the reach and impact we originally envisaged. Rather than relying on livelihood diversification to help overcome the opportunity costs of conservation, we have had to focus on ensuring that opportunity costs are minimised through careful planning and design. Temporary closures and VSLAs also help with overcoming the opportunity costs by helping to manage finances and providing access to one off lump-sums of cash. 1. The project has been supporting horticulture in Lalane and Nsangue Ponta, and we are trialling oyster farming in Quiwia (site from the broader EU-funded project). 2. No increase in number of occupations. 3.& 4. Fishing households report a non-existing or very marginal variation in the relative importance of capture fisheries to household income. Food is primarily purchased
4.1. Participatory assessment of local needs and enterprise opportunities.		Completed.
4.2. Establishment of market linkages through identification and workshop with relevant market actors and experts (e.g. The FlipFlop Recycling Company, tourism operators).		Ongoing.
4.3. Training for identified enterprise opportunities.		Ongoing
4.4. Trialling of new enterprise opportunities.		Finding market opportunities was very challenging as the communities were very remote. This creates a barrier for creating new enterprises. The project supports extensive horticulture in the 2 pilot villages and oyster farming (in

	Quiwia, site from the broader EU-funded project).
4.5. Development of business models for new enterprise opportunities.	Business models in development for oyster aquaculture based on trials that are currently being run. Will be completed through the co-financing agreements that also captures other sites.
4.6. Enterprise wrap-up workshop – lessons learned and results.	Postponed to 2018.
4.7. Socioeconomic impact assessment (in combination with Activity 3.5).	Completed. Fishing households report a non-existing or very marginal variation in the relative importance of capture fisheries to household income or food production. Alternatives enterprises have only been supported from end of 2016 / early 2017 and won't have a visible impact until June 2018.

Annex 3 Standard Measures

We use these figures as part of our evaluation of the wider impact of the Darwin Initiative programme. Projects are not evaluated according to quantity. That is – projects that report few standard measures are not seen as being of poorer quality than those projects which can report against multiple standard measures.

Please quantify and briefly describe all project standard measures using the coding and format of the Darwin Initiative Standard Measures. Download the updated list explaining standard measures from http://darwin.defra.gov.uk/resources/reporting/. If any sections are not relevant, please leave blank.

Code	Description	Total	Nationality	Gender	Title or Focus	Language	Comments
Training Measures							
1a	Number of people to submit PhD thesis	0					
1b	Number of PhD qualifications obtained	0					
2	Number of Masters qualifications obtained	0					
3	Number of other qualifications obtained	0					
4a	Number of undergraduate students receiving training	10	Mozambican	5 men 5 women	Socio Economic study	Portuguese	
4b	Number of training weeks provided to undergraduate students	2					Training weeks related to the socio-economic study so that students understand the questionnaire and how to ask questions
4c	Number of postgraduate students receiving training (not 1-3 above)	0					
4d	Number of training weeks for postgraduate students	0					

5	Number of people receiving other forms of long-term (>1yr) training not leading to formal qualification (e.g., not categories 1-4 above)	0					
6a	Number of people receiving other forms of short-term education/training (e.g., not categories 1-5 above)	10	Mozambican	5 men 5 women	Participatory approach	Portuguese	
6b	Number of training weeks not leading to formal qualification	2					Training weeks related to the participatory approach training so that AMA staff understand the apparoach
7	Number of types of training materials produced for use by host country(s) (describe training materials)	5					Posters and videos

Research Measures		**Total**	**Nationality**	**Gender**	**Title**	**Language**	**Comments/ Weblink if available**
9	Number of species/habitat management plans (or action plans) produced for Governments, public authorities or other implementing agencies in the host country (ies)	2			Co-management plan	Portuguese	Co-management plans
10	Number of formal documents produced to assist work related to species identification, classification and recording.	3					3 sorts of documents have been produced to support extension workers to identify species but also

							community members
11a	Number of papers published or accepted for publication in peer reviewed journals	0					
11b	Number of papers published or accepted for publication elsewhere	0					
12a	Number of computer-based databases established (containing species/generic information) and handed over to host country	2					2 databases
12b	Number of computer-based databases enhanced (containing species/genetic information) and handed over to host country	0					
13a	Number of species reference collections established and handed over to host country(s)	0					
13b	Number of species reference collections enhanced and handed over to host country(s)	0					

Dissemination Measures		**Total**	**Nationality**	**Gender**	**Theme**	**Language**	**Comments**
14a	Number of conferences/seminars/workshops organised to present/disseminate findings from Darwin project work	3					WIOMSA (November 2015) LMMA outreach workshop (March 2016) GCM conference in London

Dissemination Measures		Total	Nationality	Gender	Theme	Language	Comments
							(November 2016)
14b	Number of conferences/seminars/ workshops attended at which findings from Darwin project work will be presented/ disseminated.	1					WIOMSA (October 2017)

Physical Measures		Total	Comments
20	Estimated value (£s) of physical assets handed over to host country(s)		Computers
21	Number of permanent educational, training, research facilities or organisation established	2	2 offices (Pemba and Mocimboa da Praia) to AMA, project implementing partner
22	Number of permanent field plots established	0	

Financial Measures		Total	Nationality	Gender	Theme	Language	Comments
23	Value of additional resources raised from other sources (e.g., in addition to Darwin funding) for project work						

Annex 4 Aichi Targets

	Aichi Target	Tick if applicable to your project
1	People are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	x
2	Biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.	
3	Incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.	
4	Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.	
5	The rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.	
6	All fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.	x
7	Areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.	
8	Pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.	
9	Invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.	
10	The multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.	x
11	At least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.	x
12	The extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.	
13	The genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and	

	implemented for minimizing genetic erosion and safeguarding their genetic diversity.	
14	Ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.	x
15	Ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.	
16	The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.	
17	Each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.	
18	The traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.	
19	Knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.	
20	The mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization should increase substantially from the current levels. This target will be subject to changes contingent to resource needs assessments to be developed and reported by Parties.	

Annex 5 Publications

Provide full details of all publications and material that can be publicly accessed, e.g. title, name of publisher, contact details. Mark (*) all publications and other material that you have included with this report

Type * (e.g. journals, manual, CDs)	Detail (title, author, year)	Nationality of lead author	Nationality of institution of lead author	Gender of lead author	Publishers (name, city)	Available from (e.g. web link, contact address etc)

Annex 6 Darwin Contacts

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