

Darwin Initiative Main and Post Project Annual Report

To be completed with reference to the “Writing a Darwin Report” guidance: (<http://www.darwininitiative.org.uk/resources-for-projects/reporting-forms>). It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

Submission Deadline: 30th April 2019

Darwin Project Information

Project reference	24-008
Project title	Effective marine resource co-management in the Pemba Channel Conservation Area
Host country/ies	Tanzania
Lead organisation	Fauna & Flora International
Partner institution(s)	-Mwambao Coastal Community Network (Mwambao) -Wildlife Conservation Society, Tanzania programme (WCS) -Department of Fisheries Development, Pemba – Ministry of Natural Resources, Livestock and Fisheries (DFD-Pemba)
Darwin grant value	£ 402,663
Start/end dates of project	Apr 2017 – Mar 2021
Reporting period and number	Apr 2017 – Mar 2018 ; Annual Report 1
Project Leader name	Alison Mollon (change proposed from Nicola Frost)
Project website/blog/Twitter	https://www.fauna-flora.org/projects/implementing-effective-marine-resource-co-management-pemba-channel-conservation-area
Report author(s) and date	Tanguy Nicolas, 09/05/2019

1. Project rationale

Pemba Island’s west coast, an Ecologically Significant Marine Area, was designated as the Pemba Channel Conservation Area (PECCA) in 2005. Its 1100km² is considered a hotspot for cetaceans and has high coral and associated species’ diversity. Its marine resources are vital for artisanal fishing, supporting livelihoods and food security for 191,588 people in 34 coastal communities (Shehias) (of whom 45% are classified as poor and >80% are fishers), and fishers from Tanzania.

Biodiversity surveys, fisher interviews, and research demonstrate that PECCA’s integrity and people’s wellbeing are threatened by:

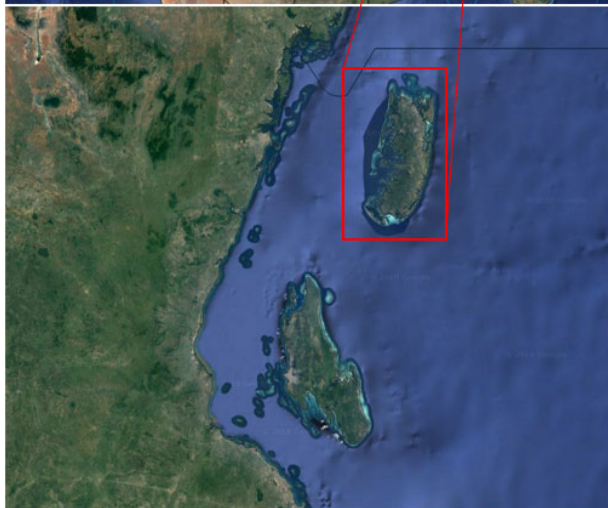
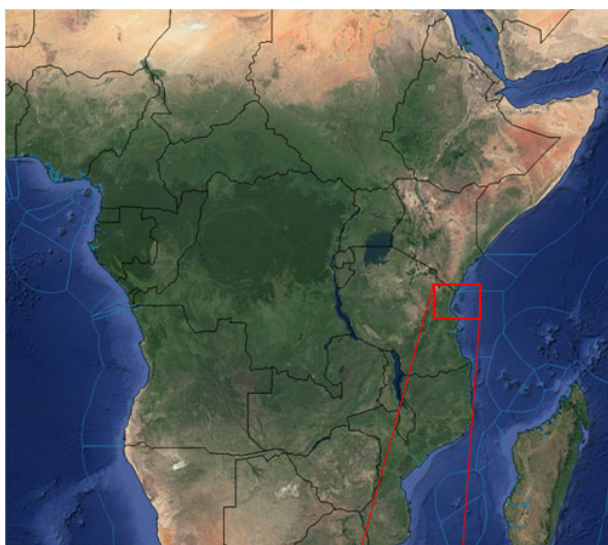
- Coral damage by fishers using drag nets, dynamite and anchors, reducing biodiversity, reef habitats, and protection from storm surges and sea-level rise, confirmed in [IUCN’s Reef Resilience Assessment](#).
- Overfishing of locally important reef fish (e.g. emperors, snappers) and octopus by an increasing number of fishers, demonstrated by undersize individuals; an absence of apex predators (e.g. groupers, reef sharks); and small fish species and juveniles being caught with small mesh nets and traps.
- Hunting and/or by-catch of globally vulnerable species, including four Red-listed sea turtle species, Indian Ocean humpback dolphins (proposed as Endangered), humphead

wrasse (Endangered), bumphead parrotfish (Vulnerable), and blacktip reef sharks (Near Threatened), with drift nets, spear guns with SCUBA, and nest poaching.

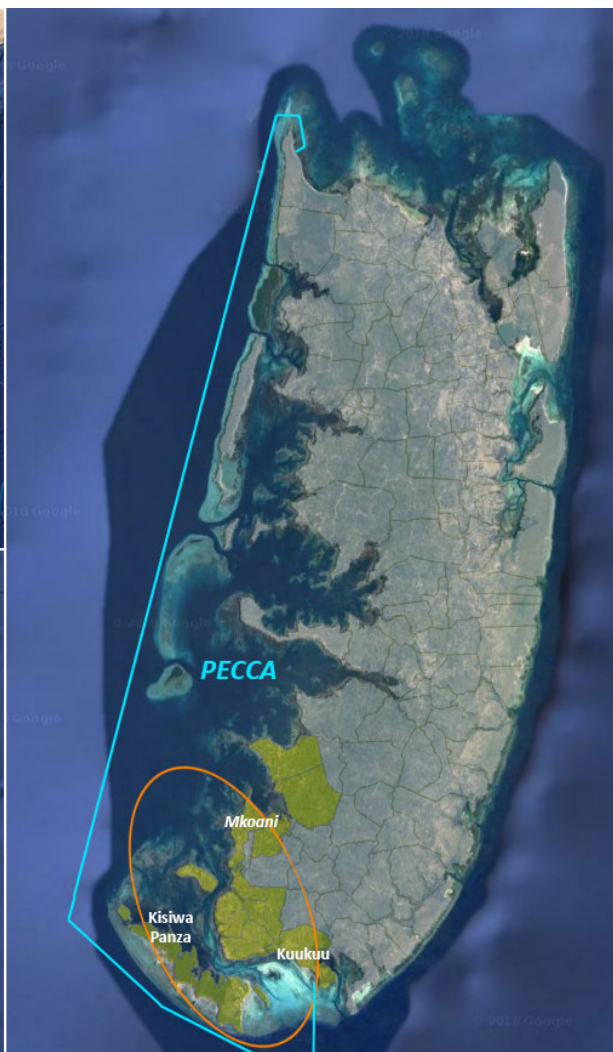
- Exclusion of fisher women and men from marine resource decision-making due to limited knowledge and management capacity, reducing compliance with regulations.

Despite a clear legal framework, DFD-Pemba and Shehia Fisher Committees (SFCs) are constrained by insufficient capacity and resources. Of 34 SFCs, only two actively manage marine resources due to our pilot (2015-16), trialling temporary reef closures over 436ha. These delivered fishery, reef ecosystem, and wellbeing benefits to the communities, including: three-fold increases in octopus catch weight; more abundant, larger reef fish; and increased participation in decision-making. This provided a solid basis upon which the project is now building.

More specifically, the project activities are working towards 1) building the capacities of six SFCs for these to have the skills, knowledge & confidence to implement sustainable marine resources management measures in local fishing grounds; 2) forming a Collaborative Management Group between the six target SFCs to determine and address seascape management issues; 3) training and building the capacities of DFD-Pemba to enable the institution to effectively support marine resources co-management in the long term; 4) providing sufficient understanding and incentives to both male and female fishers in the six target communities to participate in new marine resources co-management measures; and 5) evaluating conservation and social outcomes of the project and sharing findings with target audiences (communities, local government & authorities, conservation community).



Zanzibar archipelago and North Tanzania coast



Pemba Island, PECCA (area between coast and light blue boundary) and our main area of intervention (circled in orange)

2. Project partnerships

Mwambao Coastal Community Network

Mwambao Coastal Community Network is a local Zanzibari NGO focus on providing tools and empowering coastal communities managing their resources. They are the project's implementing partner. Mwambao is responsible for implementing most field activities and FFI for the overall project reporting. A few specific activities fall under FFI's direct responsibility (eg. in Output 3, building DFD capacities, through a consultancy), and FFI provides a range of technical input also designed to build Mwambao's capacities. For instance on socio-economic surveys method, on designing the community credit scheme (called Mkuba) or on supporting fisheries and ecological data analysis.

Mwambao provides to FFI technical reports on project activities every six months and after the completion of an activity or a significant step towards a longer activity. Writing these reports is agreed between the 2 partners according to each activity so as to inform the overall reports writing. Mwambao also provides monthly financial reports of its expenditures, which are discussed and approved jointly on that frequency.

In December 2018 Mwambao was able to recruit a finance and administrative manager to ease financial management and help manage the growing team (working on several other projects). FFI provided some training to this new recruit with some separate funding to ensure quick uptake of financial tracking requirements.

This last year, Mwambao also gained in credibility with DFD in particular, being awarded a contract (on a shared bid with a Mauritian consultancy, "Agrotec") to write proposed fisheries management plans for Zanzibar as part of SWIOFish programme. Although these additional work are further stretching the organisation and individuals workloads, it also provided an official channel for Mwambao to provide DFD with expected deliverables that will be part of SWIOFish deliverables. This strengthened the trust in the organisation and the overall relationships.

The Department of Fisheries Development – DFD

The governance capacity review conducted in Y1 by a project consultant identified key training and mentoring needs for **DFD**, including: governance of coastal and marine resources, facilitation, negotiation and conflict management with SFCs, enforcement chain effectiveness for all actors involved in law enforcement from rangers to DFD lawyers, and SFCs enhancement, including resource mapping and by-laws development and approval. We based on these to propose the workshop that happened in April 2018 to propose a shared co-management vision that will form the base of further support within the output 3 of the project. However, various uncertainties around ongoing processes make further support yet a bit unclear. Decentralisation in Zanzibar, a long scheduled administrative process decided in 2015 and not yet fully clear but that will have impact on the way DFD operates, and the update of PECCA's General Management Plan are the 2 aspects stopping us from engaging too firmly

Apart from consulting DFD-Pemba to define in details the content of activities within output 3, as a partner in the present project and the authority competent to manage Marine Conservation Areas in Zanzibar archipelago (including PECCA) and fisheries policies, the DFD (headquartered in Zanzibar town on Unguja Island, including its Marine Conservation Unit - MCU- and DFD-Pemba headquartered in the town of Wete) is regularly consulted about the best way to lead project activities involving interactions with various institutions, and updated about the progress of the activities. This sharing of information is the most regularly done by Mwambao as the organisation present in Zanzibar; FFI is liaising with DFD on each of the visits to the project activities. We are in contact with DFD's Principal Secretary as well as the Executive Director.

DFD-Pemba has been very supportive of the project, sharing some relevant information including on activities they implement within World Bank's SWIOFish programme, facilitating some meetings with communities and helping with some local governance conflict resolution (before and during the beginning Darwin funding). This coordination and communication is now also eased with Mwambao's Pemba Field Officer (Ali Said) being DFD staff temporary released to our project.

DFD-Pemba is consulted and updated about project activities and developments (e.g. expansion of our community work to new communities during Year 2, design and approval of new/updated by-laws, presentation of catch data collected within community landing sites where we work, etc.).

Wildlife Conservation Society, Tanzania country programme

The partnership with WCS Tanzania was initially aiming to gather evidence of by-catch and targeted catch in the project area of vulnerable fish species such as sharks and humphead wrasse, or illegally caught species of cetaceans and sea turtles. Due to several staff changes as well as shift of their strategy of intervention, it was no longer possible to lead the initially planned activities with that focus in terms of species. After several discussions, within the rest of project team (FFI and Mwambao), and with WCS Tanzania regarding what we could do together, we decided to keep the same partnership and narrow down the focus to gather information Sharks and Rays fisheries. Both of these elasmobranchs families represent a high biodiversity importance in the Western Indian Ocean region and very little is known and available in terms of species encountered and the fisheries, for Tanzania and specifically for Pemba Island, one of the key coastal marine biodiversity hotspot in Tanzania.

This new focus has been agreed by DEFRA in March 2018 and we were able to start the activities in September 2018 once WCS Tanzania's recruitment of their marine team had been completed.

Data collection is conducted through a network of community data collectors (CDCs) in the project area and some villages where we already work with Mwambao, or adjacent villages in the same district. Before establishing this network of CDCs, WCS Tanzania has conducted a rapid pre-assessment of Sharks and Rays landing points in Pemba to inform on how best to proceed. FFI has facilitated discussions between WCS Tanzania and Mwambao during the setup of the CDCs network, to ensure proper communication in the communities where we work.

GreenFi Ltd.

GreenFi has not been included in the project proposal because the company did not exist at that time and because they are not a beneficiary of the grant. The organisation was created by Jules Roberts, a student who conducted a study in Kuuu in June 2017 (as part of her master's thesis) to assess the feasibility of setting up a community environment credit fund. The conclusion of this study being positive, the project team (Mwambao and FFI) agreed to explore with her the options to start a pilot. Jules created GreenFi Ltd., in early 2018 and the design of the credit scheme (which we called "Mkuba", see 3.1, Output 4.) has been a collaborative work with the project team, and consultations with Kuuu SFC and communities, so as to ensure the set up will work well with the other activities (by-laws enforcement, consistent with the management plan, fitting well with the SFC, etc.).

GreenFi has secured funds on its end to work in our project context, and piloting the Mkuba in Kuuu represents for GreenFi a way to test its operations and services before proposing scaling up in other areas (not only in our project).

As the activities are working smoothly for now, we will consider some other arrangements to make sure GreenFi can continue to provide advice, trainings and guidance to continue develop Mkuba activities in Kuuu and potentially other communities in the project area.

3. Project progress

3.1 Progress in carrying out project Activities

- **Output 1. Six SFCs have the skills, knowledge and confidence to implement sustainable marine resources management measures in local fishing grounds**

SFC: Shehia Fishers Committee, the official structure at Shehia-level to take responsibility on local fisheries matters and represent the fishers from the area.

By the end of Year 2 (Y2), 6 distinct communities (*Shehias* -ward) are formally supported by the project (with green spots in the map below). Kuuu and Kisiwa Panza have been supported since the beginning of the project, then after some scoping mainly in the southern part of Mkoani district in April 2018, the project selected 4 new communities to support:

- Makoongwe, an island off Mkoani (the district's main town) and located north of Kisiwa Panza
- Shidi, Michenzani and Stahabu, 3 communities located just south of Mkoani, and on mainland Pemba Island, to the East and South-East of Makoongwe



Photo 1 Communities supported by the project by end of Year2

- After a capacity needs assessment (Annex 4) targeting Makoongwe, Shidi, Michenzani and Stahabu in May-June 2018, Mwambao conducted a first series of **training with Makoongwe**



Map 1 Makoongwe closed area started in Jan. 2019

on SFC's roles and responsibilities, working partners, standard operating procedures, local conflict management and resolution, records keeping and effective communication among and outside the community (activity 1.1). A participatory resource mapping (activity 1.2, Annex 5) conducted with SFC representatives, representatives of neighbouring communities and local authorities (Mkoani's District Fisheries Officer), leading to agree on the area targeted for closure, selected in October after additional trainings from the project team. By-laws have then been designed by Makoongwe SFC in November-December 2018 (activity 1.3) including consultations of various local

fishers as well as neighbouring communities' SFCs (Shidi, Michenzani and Stahabu). Monitoring of octopuses landed began in September 2018.

Trainings on planning and implementing patrols, steps for by-laws formulation and approval procedures, will be conducted once the areas targeted for specific management measures will have been agreed.

Makoongwe's first closure, an area of about 120 hectares constituted mainly of reef flat and a few coral patches (map on the left), started on January 6th 2019 and is due to open around mid-April 2019.



Photo 2 Capacity building in Makoongwe

- In **Shidi, Michenzani and Stahabu**, the first series of trainings were conducted in October and November 2018. From the findings in the capacity needs assessments (May-June 2018) but also getting to understand the assets and challenges of the SFCs of these communities while progressing through the various trainings, the project team understands the levels of awareness on various topics and the representativeness of the SFC members regarding their fishers seem relatively uneven.

We had anticipated quicker progress towards selection of areas for closures in the 3 communities mentioned above but it might take a bit longer to reach as the project teams is keen to ensure there is a real sense of representativeness for the interest of each community's fishers. We will pay particular attention to this in the beginning of Y3, especially as we expect to start gathering the 4 neighbouring SFCs (Makoongwe, Shidi, Michenzani and Stahabu) to initiate a "Collaborative Management Group" (in relation to Output 2) for joint-patrols and progressive joint-management across areas mostly used by these communities.

- The project continued to **mentor SFCs** (activity 1.4) already supported by the project. **Kukuu** management activities seem to have reached a steady pace and the SFC is now able to handle on its own all the steps of their temporary closures.

The situation has not been simple with **Kisiwa Panza (KP)** where management of the temporary closed areas have recently been challenged by some internal dissensions (an issue also previously mentioned in Half-Year report in October 2018). A first octopus temporary closure gathering a wide consensus in the Shehia has been successfully conducted for 3 months (between March 5th and June 12th), with the opening days matching with the end of Ramadan's fasting month and celebrations. The area has been closed again a few days later, but a group of skin divers (free diving for octopus and other resources) expressed their discontent in July with this area being closed. Various scattered arguments have been mentioned during several meetings facilitated by the project team, but despite a broad majority of the fishing community (mostly foot fishers) largely more numerous than the skin divers, being in favour of a new closure, after the end of this second closure (in early September), it hasn't been possible for the SFC to close again the areas. Taking into consideration growing tensions between groups and individuals in KP, the project team decided to pause the mentoring and support until social consensus is found again. We also wanted to prioritise expanding our support to the new communities (Makoongwe, Shidi, Stahabu, Michenzani) who had expressed more willingness and readiness to engage in marine resource management.

The issue has been discussed with DFD-Pemba (the Department of Fisheries Development in Pemba Island) and PECCA staff several times. It has been leading to the conclusion that KP has become a particularly large fishing communities (of more than 7,000 inhabitants across 2 distinct and often rival villages), making local management more challenging. Shehias in Mkoani are usually below 5,000 inhabitants and authorities would consider splitting the Shehia in 2, it happens regularly. The project team is not yet clear on the ins and outs of the process, which would likely require at least a year to be formalised/enacted and the involvement of several administrations (not just DFD). However, going forward we will consider 2 separate closure areas, one for each village, to be managed by sub-SFC structures under each village. The issues with skin divers is also particularly connected to only one village and we are relatively confident resuming management in the other area/village would be achievable in the first 6 months of Y3.

- Notwithstanding these issues, the project officer based in Pemba continues to visit KP and organise some more occasional activities.

- **Output 2. A Collaborative Management Group is formed between the six target SFCs to determine and address seascape management issues**

Initiate a **Collaborative Management Group** for several neighbouring SFC to start joining forces in community-led co-management issues

The project team has started planning the initiation and development of a Collaborative Management Group (CMG, activity 2.1) joining neighbouring SFCs supported and addressing management and enforcement of their by-laws together. With KP and its SFC facing management challenges and Kukuu relatively sitting a bit further out on the border of PECCA, the project team decided this CMG is going to be started with Makoongwe, Shidi, Michenzani

and Stahabu. But at this point the project team gauged there was not sufficient experience across those neighbouring communities yet and we preferred to postpone the activity to Y3.

WWF Tanzania country office has been running the [RuMaKi seascape programme](#) for over a decade and included some collaborative fisheries management. We are in contact with them and are planning to organise an exchange visit with supported SFC representatives, DFD staff (also with some involved in World Bank's SWIOFish programme supporting DFD in various topics including implementing co-management). Following the exchange visit, we will facilitate various feedback sessions (within communities involved and with DFD), before engaging into a formalisation process to establish the CMG, conduct some tailored capacity building trainings and draft standard operating procedures (SOPs) in accordance with DFD.

The international NGO WildAid has recently formalised a partnership with Mwambao to support this work to develop co-management enforcement support and tools within PECCA (see 2. Project partnerships for more details), both working on the communities-led enforcement and with DFD strengthening authorities-led enforcement. We are in close collaboration through Mwambao and expect that one's progress will inform the other's, in this case the initiation of a CMG will inform drafting SOPs and strengthen enforcement both ways (activity 2.2, scheduled to start in Y3Q2).

Understanding **shark and rays** fisheries and characterizing threats in Pemba channel through community-based monitoring – **partnership with WCS Tanzania**

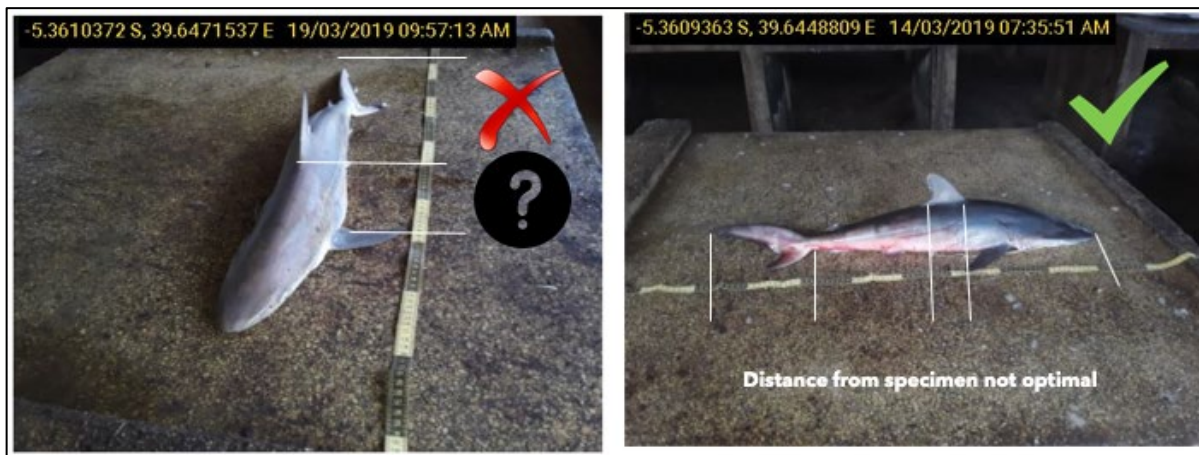
The activity (2.4) as included in the project proposal was initially aiming to assess the threats and conservation situation in PECCA of several vulnerable marine species (e.g. sharks, humphead wrasse, cetaceans, sea turtles), through a partnership with WCS Tanzania. Several changes (staff and strategy) have occurred in this partner organisation spanning over 2017 and 2018, until a new Marine programme director has been recruited (September 2018) and was able to formally start this partnership and its activities in November 2018.

The focus has been narrowed down to Sharks and Rays, within the project area in the South of PECCA, as approved by DEFRA in March 2018 following a change request. The activities to span on Y2-Y4 (3 years) remained unchanged in their objectives (except in that they are now focussing on Sharks and Rays)

The status of sharks and rays is poorly understood in the Western Indian Ocean region and there is generally little regulation and monitoring of fishing for sharks and rays, particularly in small-scale fisheries. Tanzania is characterized by extensive fisheries, from artisanal fishers to industrial fishing fleets. There is considerable fishing impact on many species, including sharks and rays, which provide valuable food sources and support the incomes and livelihoods of many fishers. However, the fishing pressure on sharks and rays exceeds that which is sustainable and, as a consequence, 40% of shark species in Tanzania are classified as globally threatened (Vulnerable, Endangered or Critically Endangered) on the IUCN Red List. There is this a critical need to reduce fishing pressure on sharks and rays, and to improve management to ensure sustainability of these fisheries and their contributions to society. However, no population assessments or stock assessments have been conducted in Tanzania, the state of knowledge on shark and ray species is poor, there is inadequate control of trade in shark and ray products, and there is a lack of legislation governing the harvesting of these species.

Data collection of shark and ray data in Pemba is particularly poor and very limited knowledge of shark and ray species exist, especially within the PECCA. Incidental data suggests that sharks and rays are targeted species, however data in national catch assessments and reports does not suggest this fact. Due to the ecological importance of sharks and rays for balanced ecosystem function, it is essential that shark and ray data be captured to species level and in depth assessments to be conducted as to their conservation status.

In this perspective, the current project relies on WCS Tanzania's expertise to conduct community-based during 3 years of the current project, through setting-up a community-based data collection network. Collect mobile application was selected as the primary choice for the shark and ray data collection due to their global portfolio, their online support services and the customisable data acquisition forms.



Photos 3 An example of key characteristics to ID shark species with photographic evidence taken by Community Data Collectors with smartphones and sent/stored on WCS' online database

To date limited shark and ray research has been conducted in Pemba, so apart from the well-known fish markets like Mkoani, where sharks and rays are commonly landed, little is known about the smaller village landing sites and which, if any are targeting sharks and rays specifically. Mwambao's field knowledge and community network in PECCA helped to gather the necessary information design a network of Community Data Collectors (CDCs), and the project's field team facilitated some contacts and meetings with individuals of interest for building such a CDCs network.

Once the CDCs identified, WCS provided the individuals selected with hands-on training and a smartphone, to take proper pictures easing identification of sharks or rays species. 3 data collection sites have started operating in Mid-February:

- in Mkoani market (the main and district town in the South of Pemba), with consultation with the District Fisheries Officer (DFD staff)
- in Kuuu, where the brother of a beach recorder already employed for octopus and reef fish catches monitoring is a shark fin trader
- in Chole, East of Kuuu (SE of Pemba Island) where lives the island's main shark trader also sundrying and salting shark meat before shipping it to Tanga (mainland)

An additional fourth site in the extreme North of Pemba (village of "Msuka") has been set-up with WCS funding, as the main landing point for rays.

Of the 324 total recordings in 42 days captured using the Collect mobile app in four locations in Pemba, 182 are sharks and 142 rays. Species identification is ongoing; however initial observations suggest that of the sharks landed the majority are migratory species like the Mako shark (*Isurus oxyrinchus*), Thresher shark (*Alopias macrourus*) and the endangered Scallop hammerhead shark (*Sphyrna lewini*). The most commonly recorded shark is the Silky shark (*Carcharhinus falciformis*). Although present in recordings in Unguja market data, migratory species are less often encountered compared to more resident reef sharks. The catch composition of sharks and rays differs between the four locations. In Chole 93 specimens have been recorded, 97% of which are sharks. Msoka landing site recorded 106 specimens, of which 87% were rays. Mkoani market and Kuuu landing site recorded 106 and 19 specimens, of which rays represented 41% and 21% of landings, respectively.



Photos 4 Mickael Markovina and Abdulla Said Abdulla from WCS measure sharks in Chole

Preliminary market data analysis suggests that shark species recorded in Pemba are primarily large migrating pelagic species, compared to shark recordings in other locations. These data indicate that fishing methods and gears are capable of targeting such species. All data recording locations show overall a higher percentage catch of rays compared to that of sharks, with the exception of Chole Village. Furthermore, shark species composition observed in the markets reveals few coastal reef dwelling species, which shows the severe impacts of unregulated inshore fishing. This initial finding supports low detection numbers of sharks and rays observed in 345 Baited Remote Underwater Video (BRUV) deployments conducted by WCS along Tanzania's coastline. The lack of national data regarding shark and ray landings at the species level and the lack of any shark and ray stock assessments means that authorities have overlooked the rapid decline in shark landings. Furthermore, within the WIO shark and ray taxonomy is incomplete, making species identification difficult. New taxonomic findings in the region, for example, the honeycomb whipray (*Himantura uarnak*), one of many rays currently under taxonomic review, may be classified into three different species, meaning that overall species diversity of sharks and rays in Tanzania will increase. The detailed report is available in Annex 6.

Data collection in remote areas is challenging, expensive and time-consuming. By training and empowering local community data enumerators in Pemba to collect shark and ray data using smartphones, WCS has successfully collected crucial data remotely, cost-effectively and in real time. We aim to initiate some data sharing with our partners in DFD and communities to start raising knowledge then awareness on sharks and rays and the need for fisheries regulations.

- **Output 3. Training and capacity building provided to DFD-Pemba to effectively support marine resources co-management in the long term**

In April 2018 the project organised 2 successive workshops (activities 3.1 and 3.2) spanning over a week in PECCA office, in Weshia (central Pemba on the West coast) and centred on co-management governance and conflict management, with:

- DFD-Pemba and MCU (PECCA) staff for the first one, with the view to enhance SFC effectiveness within PECCA
- only key DFD-Pemba staff and representatives of all the Shehias encompassed in PECCA (totalling 34 heads of SFCs or their representatives)

Beyond laying the foundations about what co-management could look like at the entire PECCA scale, and for roles and responsibilities to be shared by the various stakeholders (MCU and DFD staff at every level, and SFCs and communities), holding these 2 workshops allowed to list a series of recommendations, regarding next steps to engage into for the project but also suggestions and recommended areas of improvements for the SWIOFish programme (supported by the World Bank) to support DFD and MCU, and finally for DFD to ensure about necessary guidelines and regulatory documents to be finalised and fully operational.



Photo 5 FEC workshop participants (heads of SFCs in PECCA, Mwambao and DFD-Pemba staff)

We are continuing to liaise with DFD regarding some the aspects raised during those workshops, and increased communication with the SWIOFish programme's team. We are also now looking at how we can facilitate and support holding one of the next Fishers Executive Committee meetings, as a way to implement some the recommendations.

The objectives of the workshop, first with DFD staff (2 days) then with PECCA's Fishers Executive Committee (the structure gathering SFC chairs of the 34 Shehia included in PECCA) were the following:

1. Increased understanding of governance framework for marine resource management in PECCA and how co-management can lead to improved effectiveness
2. Strengthened governance arrangements for FEC to enhance SFC effectiveness
3. Strengthened skills for facilitation and conflict management for PECCA effectiveness

Through a series of exercises, cases studies and presentations (in groups of various size) the workshop allowed to reach the following main conclusions and recommendations as notes (more detailed report available in Annex 7)

- **Regulatory framework:** key guiding documents are still in draft form or non-existing which weakens the governance framework and lack of clarity for different actors.
- **Institutional roles:** clarification of role of DFD Artisanal Fisheries Officers and DFOs – and how they support PECCA
- **Agreed a draft on steps for the FEC** to decide on a closure zone and deal with conflict
- **Communication and Information Flow:** DFD and within/between SFCs (and neighbouring SFC).
- **Communication strategies**-between all PECCA SFCs
- **Improve Role of FEC in facilitating** communication strategy with SFCs
- **Set a DEC (District Executive Committee)** with oversight from District Fisheries Officer (DFO) to rationalise use of limited resource and provide more adapted support and liaison with SFCs. There is a need to pilot drafting SOPs for FEC and DEC
- DFD to approve **Guidelines for proposing and approving locally managed areas** developed by the project
- **Conflict management** – conflicts between and within villages. Need to do more at village level. Improve training materials at SFC level. The more prevention at village level before gets to district level.
- **District level** – checklist and safeguard to strengthen rather than undermine SFC agreements and FEC decisions.
- **Case studies on Governance:** Fundo & Uvinje; KP; Kuku; Makoongwe. To see what decisions were taken, how and what was learned, to illustrate how co-management can operate in various cases.
- **Support DFD inputs to PECCA new General Management Plan** to be developed as part of a new SWIOFish consultancy: objectives, contribution of SFC to PECCA objectives.
- **Governance inter-institutional coordination** – influence points – Dept of Planning and Dept of Environment. Dept of Planning is starting development of a marine spatial planning.
- **Distinction between revenue generation and distribution:** i) fishermen getting catch but also ii) SFC negotiating increased price with buyer to add value that is then distributed within SFC. To justify greater revenue distribution, need for involvement in patrolling and protection of area i.e. investment. Costs include real cost of patrol, opportunity cost of holding back from fishing and patrolling (distance).



Photo 6 DFD-staff feedback on one exercise during the workshop

Out of this workshop it became obvious (although previously sensed without a detailed picture) that the information available in DFD-Pemba staff for PECCA management is very scattered and the many debates held showed that there is a widespread lack of clarity on the regulations and processes around PECCA which leads to much of the current ineffectiveness.

The project team identified several areas as potential topics options on which the project could be providing more clarity, in the spirit of SFC SOPs and LMMAs

establishment process that the project developed in Year1 (basing on pre-project work). The following areas sounded the ones more appropriate in the timeframe of the current project and taking into consideration the remaining moving pieces around Marine Conservation Areas policy:

- An internal Communication Strategy for PECCA detailing Information Flow, clarifying how communications should circulate according to the diverse matters raised
- Draft SOPs for FEC and DEC
- Capacity building Governance of FEC and its meetings
- Support DFD inputs to PECCA General Management Plan

These ideas have been informally agreed by DFD-Pemba by the end of the workshop, and have been raised with central DFD in Unguja at several occasions in May-August 2018 but discussions have been stalling.

In the meantime, in June-July 2018, SWIOFish's consultancy on co-management (which is scheduled to span over 2 years for its first phase) became active (after having faced about 2 years delay in starting) and the international consultant has been formally selected. This is Dr Chris Horrill, a senior fisheries management specialist, with experience of work in mainland Tanzania (in the cross-border MPA project with South Kenya) and in Mozambique especially on fisheries and MPAs governance matters.

The project team quickly made contact with him and we are today in relatively close coordination over our respective activities and plans, to try to avoiding overlaps and inconsistencies. There is genuine

It also came to our attention (through increased information sharing through Chris Horrill) that Zanzibar decentralisation process, which has been stalling in the last years, was now again moving forward. This process started as a result of last presidential election (in 2015); in terms of fisheries and marine conservation it will mean more responsibilities and resource (likely staff, hopefully also funding) will be dedicated to district level work. This is something quite positively matching with some of the conclusions of our April 2018 workshop: it was recommended to foster more roles for SFCs to coordinate in community-based management and resolve conflicts at the district level to avoid traffic jams at the FEC/PECCA-level, for all matters.

It is however putting continued uncertainty on roles and responsibilities, such as: what will be those for the District level staff (DFO), if, when and how a DEC would be set-up, and how its roles will be articulated with PECCA's FEC.

The suggested 4 areas of work (see previous paragraphs) considered in this output for the project to support following April 2018 workshop cannot start without more clarity on the timeline regarding the decentralisation process and/or any indications on the projected articulation for roles and responsibilities in DFD and PECCA structures (specifically the FEC and DEC). We are in contact with DFD's Principal Secretary and currently hope the situation would become clearer from July-August. We will keep ourselves updated as appropriate and will communicate this to Darwin by the summer at the latest.

- **Output 4. Sufficient knowledge and incentives provided for both male and female fishers from the six target communities to participate in new marine resources co-management measures**

Community Environment Credit Fund (CECF), also known as MKUBA (activity 4.3)

The first loans have been disbursed to community groups in July 2018 of Kuuu, the community where this pilot activity is started. By the time of this Y2 annual report, the pilot has been going for 8 months and has established five "MKUBA groups" which are operating smoothly, 151 loans have been made with 100% repayment rate to date. These groups are comprised of about 30 individuals, for a total of 131 individuals (68 females and 63 males), which means that a few individuals are now repaying their 2nd loan. A particular attention has been given throughout the process to ensure the beneficiaries are composed of at least 50% of women. After these first 8 months of activity, a review has been conducted in end March to assess the successes and challenges of the activities related to this experiment conducted with Kuuu community and provide recommendations going forward (Annex 8).

The start of the pilot has happened after numerous discussions on the design of the scheme and roles and responsibilities across the various elements in the community, together with Mwambao and GreenFi. GreenFi have proposed several options to implement the activities of the scheme following the completion of feasibility study in 2017 and developed a tailored approach and manuals based on the our discussions. GreenFi also carried out a detailed review of IUCN's CECF in late 2018.



Photos 7 MKUBA manuals, cashbox and loans records

The resulting MKUBA (*Mfuko wa KUtunza BAhari*, “fund to care for the sea” in Kiswahili) is inspiring both from [IUCN’s CECF model](#) (especially regarding linkages with the community-based natural resources management) and [CARE’s VSLAs](#) (Village Savings and Loans Associations, especially regarding structuration with livelihood groups for the loans). The essential differences between VSLAs and CECF are that (1) in CECF the credits are linked to the implementation of a natural resource management plan and/or respect of by-laws, and (2) that it is not relying on local savings but on a grant of capital into the fund at the community-level. The MKUBA in Kuuu operates in this way with a grant paid into the 5 groups (each group is formed of individuals who respect eligibility criteria, as detailed below) and with commitments to engage into the implementation of the existing local management plan.

The 5 MKUBA groups were formed by their members and are based on their main livelihood activity (except for the SFC group). The groups are the following ones:

- Foot fishers
- Seaweed and fish farmers
- Net fishers
- Mangrove users and former members of VSLA groups
- SFC members

All the groups’ members have to respect the following eligibility criteria:

- They must return loans on time
- They must support resources conservation including by
 - o Observe the natural resources management plan
 - o Participate in MKUBA development activities (attend all regular meetings)
 - o Involve in patrolling to support enforcement the by-laws
 - o Mangrove restoration planting
- They should use the funds for development and increase income and not engage in activities that would lead to encroach with the management plan and illegal activities with particular regards to Zanzibar’s Fisheries regulations

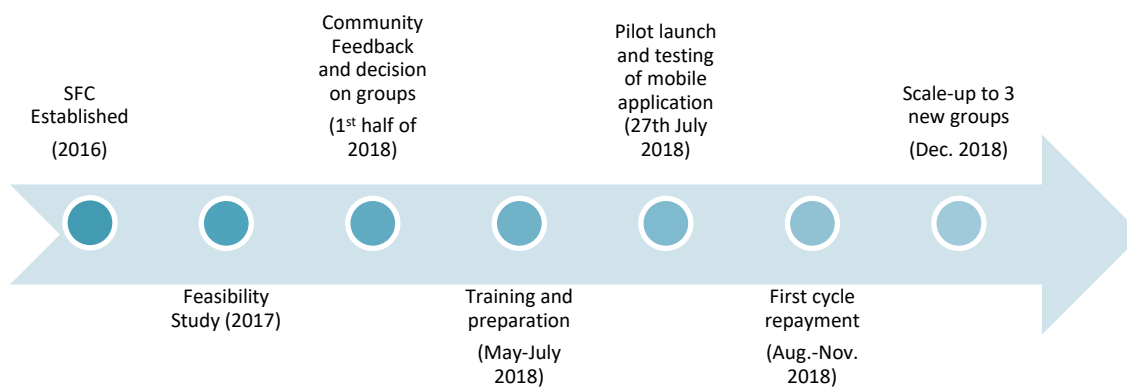
The basic loan cycle is:

1. Receive the loan
2. 3 weeks preparation time for repayment
3. Ongoing carrying out of environmentally positive actions
4. Pay back week by week over a 3 months term with the loan fully repaid by the end.

The 1st loan is a value of TZS 140,000 (ca. £47) and the 2nd loan 200,000 (£67). To recognize the performance of the SFC (and help in steering the overall process with the community), SFC members immediately started on the 200,000 loan level.

There is no interest to be paid for the scheme to be compliant Islamic law (Sharia), widely observed in Pemba Island and Zanzibar, but there is however a subscription fee for every loan borrowed (TZS 5,000 or 10,000, according to loan size), and members have to pay fines if they don’t attend or are late to regular meetings with no valid reason. With these additional payments, the overall capital initially injected has grown by 16% within the first 6 months. The money gathered is added to the capital available for loans.

Here is a summarised timeline recapping the launch of the MKUBA in Kukuu:



Successes

The following are the overall successes that were reported during the interviews conducted during the review.

- Improved enforcement: MKUBA groups conducting patrols have come to strengthened the existing patrols (organised by the SFC) and individuals in the groups are more aware of the rationale for the by-laws / management plan and of the efforts required for effective local management.
- Mangrove planting: 6000 seedlings have been planted in areas previously degraded and it is estimated that 70% have survived.
- Small businesses: interviewees have reported positively affected lives through making credits available for more business opportunities although not much details were gathered yet
- Increased level of community organisation: various actions and meetings resulting from the MKUBA activities increased common purpose centred on Kukuu's management plan and contributed to improve collective planning and organisation (eg. through organising several patrol teams, mangrove planting events).

Challenges

Some aspects remain either issues to be addressed or areas of improvement.

- Patrolling: only 3 out of 5 groups had operational patrols when the review was conducted, those do not have detailed recording tools yet and some individuals are not the best suited for patrolling are attending (some differentiated roles could be developed according to individual abilities)
- Mangrove planting: one planted area was washed out; the total area planted has been calculated (it is consisting of small pockets within existing mangroves); and several mangrove areas are still under harvesting pressure, there is a need for more emphasis and regulations to be included in the management plan
- Small business: there have been some business failures notably chicken farming, and the milkfish project that looks non-operational; there needs to be a closer look at the micro enterprises that are being undertaken and this requires an evaluation methodology.
- Technology and mobile phone application: each of the first two groups were issued with a tablet. This has not proved to be particularly functional as the first version of the mobile app was difficult to implement properly. The use of the app is expected to make MKUBA progress tracking easier.
- Community level fund management: Currently there is no overall administration of the village MKUBA fund, the groups act semi-independently – although a leadership group

is coalescing with the SFC as the focus. Overall administration would ease cross-group planning and learning (regarding businesses, environmental actions undertaken, etc.)



Photos 8 Planting mangroves in Kuuu, in September 2018, then March 2019

As an incentive for males and females in Kuuu, so far the MKUBA is achieving several objectives: various environmental actions have started strengthening the implementation of Kuuu's management plan (patrols and mangrove planting), it boosts/spreads awareness on the by-laws within involved groups, and reinforces collective organisation. These elements need however a more embedded systematic tracking system (which GreenFi app to be gradually used should help) but to gauge their extent and improve these.

With regard to the activity in terms of microcredit performance, interviews of members from the groups involved are largely positive and but our review notes a need to offer support, to ensure business activities developed are viable so that borrowers do not impoverish (even if the loans are of limited size).

The plans for MKUBA at the end of Y2 are to:

- improve monitoring of environmental actions undertaken,
- scale-up to a few new groups (probably 3) within Kuuu to provide wider access to loan for community members who haven't yet benefited, thus continue to spread the incentives to engage in local management within the community,
- create an overarching governance structure in Kuuu distinct from the SFC to ensure better consistency and coordination across the existing groups, avoiding too much roles confusion with the SFC (as an existing MKUBA group)
- train the groups involved and start using GreenFi's app when ready to improve monitoring of the activity

Until now, as a testing ground for GreenFi and an experiment for the project, only seed funding has been used as well as some time for the project team. The project team will design and send Darwin Initiative a change request to budget the costs associated with MKUBA activities going forward (staying within the total amount of the grant awarded).

Participatory Market Systems Development (PMSD) on the octopus Market.

Although not funded by Darwin Initiative (but by some match-funding), this activity was initiated around the octopus market with the communities we support in 2017. This approach brings together stakeholders within a market value-chain (in this case: fishers, intermediary buyers, exporters, hoteliers and restaurant owners, local authorities) to identify and agree on common concerns/interests, then coordinate so as to progress towards these common goals.

During Y1, in the initial introductory workshop in 2017, octopus fishers from 2 communities (Kuuu and Kisiwa Panza), buyers/middlemen, an exporter's agent and governmental staff quickly concurred that the temporary closure model was a valuable tool enabling the sustainable use of octopus stocks, and thus all stakeholders had a common interest in supporting its implementation.

The various buyers are particularly interested with the supply of bigger octopus which have higher value on the export market. Several are now supporting the SFC during opening days by agreeing a higher negotiated price, encompassing a levy per kilo whose total sum would be paid to the SFC. Some SFC have also been able to stimulate competition in their favour by reaching out to more buyers.

Those new arrangements have attracted increased attention from the fishers towards their SFC, as now managing some money (the levy) pooled to partly cover some of the local management costs and to be used in some distinct local projects (eg. building a school, a dispensary), as that money could have been earned by the individual fishers. SFCs utilising that levy collected on opening days tend to face more accountability demand from the community they represent.

In July 2018, a repeat workshop addressed several relationship challenges and resulted in jointly designing a protocol for SFCs (Annex 9) whilst engaging with interested buyers and reporting to community members in a step-by-step approach. This workshop gathered representatives from 4 communities (Kukuu, Kisiwa Panza, Makoongwe and Fundo – a community in the North of Pemba Island, activities in this one are not funded by Darwin Initiative).

We are currently gathering information from the communities and SFCs involved to understand how this protocol is being used and to what extent it eases governance processes around opening days (before, during and after).

Outreach through SFC and community meetings (activities 4.1 & 4.2)

Kukuu SFC organised regular meetings this year, comprised of general community meetings, SFC meetings and specific meetings (eg. octopus or lobsters fishers, seaweed farmers). A total of 26 meetings have been conducted during Y2, which is an average of more than 2 per month, and a 326 women participations and 474 men participations have been recorded across those meetings.

In Kisiwa Panza (KP), due to pausing management of temporary closures areas from September 2018, the SFC has not recorded its meetings since then (though a handful took place called by Pemba project officer). 17 meetings took place in KP between April 2018 and September 2018, with 67 women and 213 men.

Makoongwe recorded 3 meetings since January 2019 (8 women and 29 men), Shidi 2 meetings (2 women and 48 men), and Stahabu 1 meeting (2 women, 28 men) and none yet for Michenzani.

Comparing to Y1, the frequency of meetings in KP and Kukuu has increased: these were happening once per month or every 2 months, against 2 to 3 per months in Y2 (during active management period for KP).

These meetings have various purpose, such as: SFC meetings to coordinate routine management activities (eg. patrols schedule, anticipate opening days, liaising with local authorities), meeting with groups to talk about specific issues (eg. seaweed farmers, foot fishers), MKUBA meetings to coordinate environmental actions of the MKUBA groups, feedback on revenues and catch after opening days, negotiation with buyers ahead of openings, by-laws design or feedback and consultations once the management plan is drafted.

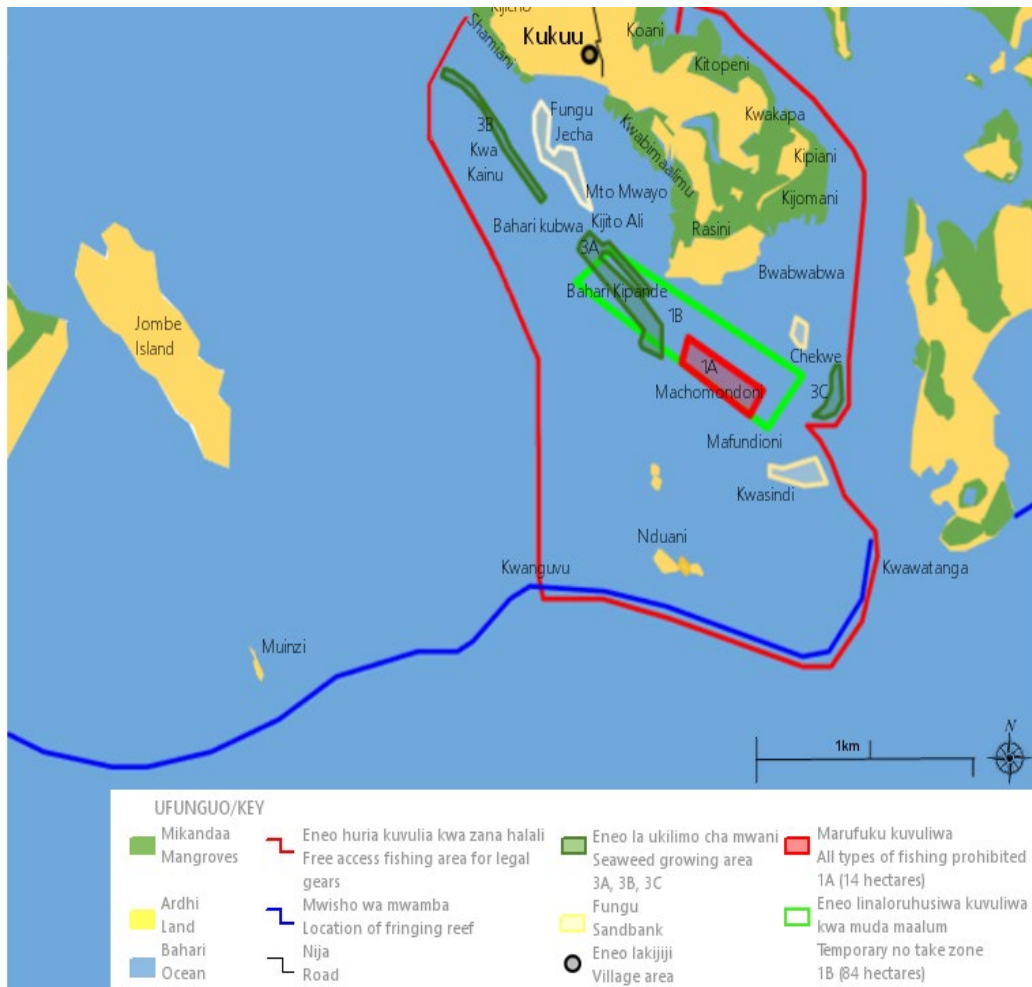
Radio announcements (on *Radio Jami*) continue to be broadcasted during 3 days throughout Pemba prior to the start of new closures, explaining specificities of the by-laws, dates and area covered. That has been the case for KP and Makoongwe, but not really anymore in Kukuu where areas under management remain closed most of the year and only open for a few days every 3 months.

During Ramadan month in 2018 (mid May-Mid June), Kukuu SFC together with Pemba project officer broadcasted a 30-min programme explaining the progresses in local management from the first measures the community had implemented, how and why they were designed and what benefit the community reports from these (text available in Annex 12).

The bylaws and the area closed are displayed in the display boards the project has installed in the villages. The maps created for Kisiwa Panza and Kukuu are as follows. A similar map is under preparation for Makoongwe.



Map 2 Kisiwa Panza management areas



Map 3 Kukuu management area

- **Output 5. Conservation and social outcomes of the project are evaluated and findings shared with target audiences (communities, government, conservation community).**

The fisher behaviour, household wellbeing, and marine governance effectiveness surveys (activity 5.1, questionnaire in Annex 13) have been conducted in January 2019 as a baseline in Makoongwe, Shidi, Michenzani Stahabu (communities in which we started to work this year). We faced some technical difficulties related to using the smartphones and ensuring the data collected are stored properly which delayed a bit this activity.

This survey is handled through an open source system, which required more time to configure by ourselves than paid-for solutions. The project team wasn't able to finalise the analysis of this survey which targeted 250 individuals on the 4 communities mentioned above. This will be completed in Y3Q1.

After starting to develop jointly (Mwambao and FFI), in September 2017 an M&E plan encompassing diverse information to monitor the progress of community actions (activity 5.2), this plan has been gradually turned into several tools to record the indicators periodically. Finally, Mwambao project team completed developing a comprehensive M&E spreadsheet summarising and gathering all these indicators community by community (eg. patrol data records, SFC meetings minutes, monthly financial information, trainings, opening days results, outreach and communications, etc.). Screenshots are available in Annex 14. This spreadsheet is progressively informed and filled in by the project team, and several areas need to be further detailed (including reporting past information from other docs there), but this encompass indicators about the SFC governance such as monthly check of the financial records (revenues and expenditures) and SFC and community meetings (as part of activity 5.4).

Thus both KP and Kuuu took part to participatory data analysis, first within their respective community (Oct.-Nov. 2018), then presenting their findings in DFD-Pemba office in Wete (the administrative capital of Pemba Island in the North) in December 2018. This exercise happening once or twice a year is usually a good way to strengthen relationship and build trust with various DFD-Pemba staff (at District and island-level), and for collaborative/thoughts sharing habits to spread in a traditionally rather top-down approach to governance still very much rooted in Zanzibar political culture.



Photo 9 KP presenting its octopus landing monitoring results in DFD office in Wete

With more than 4 years of experience working alongside and with Mwambao and FFI, DFD staff (and) have become gradually more convince that co-management of Zanzibar' Marine Conservation Areas (PECCA being the largest of the 3 existing) involving fishing communities is a sensible and achievable way forward, and value the tools and initiatives our project if providing.

Jaala Simba, Head of the Marine Conservation Unit in DFD, said the following: "Mwambao, don't become tired in carrying out your important work! Holding meetings like this is very useful and we would like to hold many more. The Department is seeing the importance of co-management and we are actively using and developing the SFC standard operating procedures that Mwambao have developed."

The project team conducted in February-March 2019 in-water ecological surveys with community members trained in the previous occurrences (October 2017 and 2016) in Kuuu and Makoongwe, the latter to serve as a baseline. Both coral reef surveys and fish and octopus catch analysis are summarised in the report in Annex 15 and all the graphs are in Annex 16.

In Kukuu, the survey indicates that the diversity of indicator fish species has increased within the closure, indicating improved reef health. In 2017 four indicator fish species were recorded in the closure while in 2019 nine indicator fish species were recorded in the closure. This increase in fish species is supported by anecdotal accounts from community members within the last 6 months reported increased fish species in the closure area. The number of parrotfish has increased by 475% between 2017 and 2019; macro-invertebrate diversity has decreased (1.59 to 0.95 Shannon Index, H). While within the closure large sea urchin numbers have decreased by 80% (520 to 106) and small sea urchins have decreased by 95% (214 to 10), indicating improved reef health.

Octopus and Fish catch monitoring

- Mwambao have been working with **Kukuu** community since 2016. Kukuu began monitoring **octopus** catch within their fishing grounds in March 2016. Initially they collected baseline octopus catch information for one fishing period before closing the area to fishing practices. Kukuu have a core fish breeding zone, which is permanently closed for all fishing practices, and a temporary closure zone, which is closed for all fishing practices and temporarily opened for pre-determined fishing activities periodically. Following their initial recording period they have implemented a cycle of closing the area to fishing and opening the area for a short period of time; to date the closure has been active for 32 months overall (64 fishing periods), with an average closure duration of 3 months (6 fishing periods) and held 9 octopus openings.

Average individual octopus weight can be used as an indicator of the impact of the closure. Comparison between the mean individual octopus weight in the period before closure (caught in the closure area before management activities), during the opening periods (caught within the closure area during temporary openings) and during the closure periods (caught outside the closure area while the closure is active) is shown in the figure 1 below. The figures show **some increase**: 51% increase (0.46 to 0.70 kg) comparing before closure period 2016 and 2016 openings, **40% increase (0.70 to 0.98 kg) comparing 2016 and 2017 openings**, **10% increase (0.98 to 1.07 kg) comparing 2017 and 2018 openings**. Average individual octopus weight increased 130% (0.46 to 1.07 kg) comparing the baseline before closure period in 2016 to the openings in 2018. **During the closure periods there was a 22% increase (0.40 to 0.48 kg) comparing 2016 and 2017 closures**, and 7% decrease (0.48 to 0.45 kg) comparing 2017 and 2018 closures.

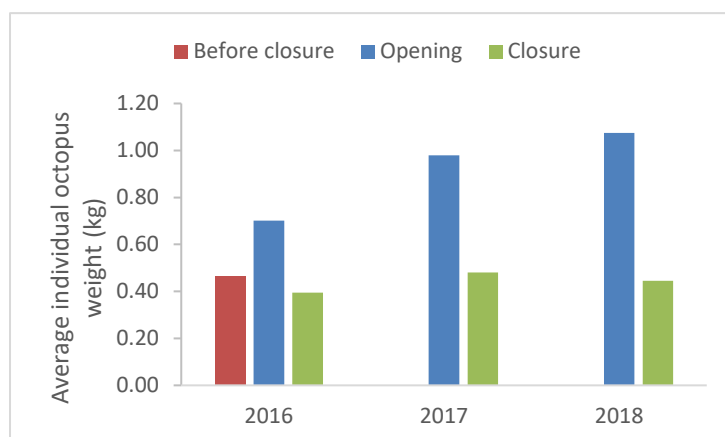


Figure 1 Average Octopus weight in Kukuu according to periods

Kukuu began monitoring **fish** catch in May 2018. It was not possible to collect a baseline of data, as management activities started in the area in 2016. Fish catch is recorded

from 5 fishers for 6 days during each fishing period (*bamvua*) with two fishing periods each month. Since fish catch monitoring began Kukuu have held 2 openings and closed for 10 months (20 fishing periods). **The average catch size per fisher per *bamvua* and the average income per fisher is higher during the openings** than during the closures. The trophic composition of a reef system can offer an indication of the health of the reef, comparison of percentage of each trophic group (planktivore, herbivore, omnivore, piscivore, and predator) caught during openings and closures can be made, based on the total weight of each trophic group. **During openings there appears to be a slightly higher proportion of omnivores and herbivores and a slightly lower proportion of piscivores, planktivores and predators.**

- Mwambao started working with **Kisiwa Panza** in 2015. KP began monitoring their **octopus** catch in February 2015, with a baseline period of 1 month (2 fishing periods) leading onto an overall 14.5 months closed (29 fishing periods) and 5 openings. Fish catch started to be monitored in May 2018, with 3 months closure (6 fishing periods) followed by one fishing period open and another 3 months closed (6 fishing periods). KP stopped recording octopus

and fish catch after November 2018, a measure agreed by the project team, waiting for the SFC to solve the community internal dissensions over management and resume activities (closures or other by-laws).

The data indicates that overall the management practices have not caused any significant increase in the mean individual octopus size within the KP closure between 2015 and 2018.

Mean individual octopus size increased in the closure area during the first *bamvua* of opening relative to the mean individual octopus size recorded during the closure period.

Fish catch monitoring data shows the average fish catch size per fisher and the average income per fisher are not notably different during the opening period compared to the closure periods.

- The project started working with **Makoongwe** in 2018. In September 2019 Makoongwe began monitoring their octopus catch, collecting a baseline over 1 ½ months (3 fishing periods) before closing in November 2018. The mean individual octopus weight was 0.78 kg during the baseline monitoring and 0.46 kg during the closure period until February 2019, a difference that may be related to seasonal changes.

Octopus catch data analysis and ecological surveys for Kukuu seems to be proving that the closures work, and we will continue to monitor fish catches to verify if the same trends are observed: changing trophic composition with more herbivores and omnivores caught.

We will resume catch monitoring in KP when the SFC management activities start again, there is a need to better prove the case with this particular community as the changes (benefits) have been harder to demonstrate there so far (maybe due the size of the areas and increased difficulties to enforce it entirely).

Finally, we are looking forward to see the first results of Makoongwe's first closure and start similar activities in Shidi, Michenzani and Stahabu.

3.2 Progress towards project Outputs

	Baseline	Year 2 (VS baseline)	Source of evidence
Output 1. Six SFCs have the skills, knowledge and confidence to implement sustainable marine resources management measures in local fishing grounds			
Indicator 1.1. SFCs are functioning and represent a cross-sector of society, including an average composition across all SFCs of 30% women, in three communities by y1, four communities by y2, 5 communities by y3, and 6 communities by y4.	1 community with a functioning SFC (Kukuu) in the beginning of the project with 2 women (17%), the other community's SFC had collapsed end 2016.	3 SFCs operational, including one new (Makoongwe), and one partially operational (KP, handled 2 closures only in Year 2). 3 additional SFCs elected and gradually becoming active as result of capacity building and support from the project	SFCs list of members/election records (Annex 17) SFC meetings records, closures timelines.
Indicator 1.2. Six SFCs have implemented sustainable marine resource management plans to address locally defined conservation priorities (e.g. temporary or permanent closures, gear restrictions),	1 community (Kukuu) implementing their local marine resource management plan according to conservation targets identified. The management plan in Kisiwa Panza had to be redesigned as a result of the	2 management plans existing (KP and Kukuu), and by-laws defined and approved for Makoongwe. Management planning will be following.	Management plans, conservations targets and by-laws.

	Baseline	Year 2 (VS baseline)	Source of evidence
against a baseline of 2, by 2021.	SFC collapse in the end of 2016.		
Indicator 1.3. 12 community monitors trained and implementing fisheries catch data collection; 12 community monitors trained and implementing coral reef monitoring; six patrol teams trained and implementing patrols by 2021	4 community monitors trained in fish catch data collection in place across both communities supported, 2 community monitors trained in coral reef monitoring (Kisiwa Panza only) and 1 patrol team (Kukuu only)	8 community monitors trained and implementing fisheries catch data collection, 8 on coral reef monitoring, and 3 SFC patrol teams trained but KP patrols not active at end Y2 (managmt issues). Additional patrols with MKUBA activity in Kukuu	Patrol records (Annex 18).
Indicator 1.4. 60% average reduction in the number of breaches of SFC by-laws across all six communities as compared to the first year of by-law implementation in each community by 2021.	First year (March 2016-March 2017) of by-law in Kukuu recorded a total 19 breaches/people arrested.	Makoongwe: first year. Kukuu: 90% decrease KP 11 individual breaches as new baseline in Year 2 (closure restarted)	Patrol records (Annex 18 Kukuu)
Output 2. A Collaborative Management Group is formed between the six target SFCs to determine and address seascape management issues.			
Indicator 2.1. There is a functioning Collaborative Management Group of 12 members between the six target fishing communities by 2020, supported by DFD-Pemba.	No existing collaborative management group gathering representative of the supported communities in the project area	None (starting activities with a collaborative management group from Mid-Year 3 of the project)	None yet
Indicator 2.2. A joint management plan is established between six SFCs and the Collaborative Management Group to address threats to priority habitats and species of conservation and livelihoods importance by 2021.	No existing collaborative management group gathering representative of the supported communities in the project area	None (starting activities with a collaborative management group from Mid-Year 3 of the project)	None yet
Indicator 2.3. Briefing paper for possible interventions to	None	None (expected during the last year of the project), focus of the partnership	Initial assessment with Sharks & Rays species identified

	Baseline	Year 2 (VS baseline)	Source of evidence
reduce megafaunal mortality is produced, shared and discussed with project partners by 2021.		with WCS Tanzania changed to look after sharks only.	and 3 collection sites setup (Annex 6)
Output 3. Training and capacity building provided to DFD-Pemba to effectively support marine resources co-management in the long term.			
Indicator 3.1. 5 key DFD-Pemba staff attend institutional governance training (according to needs assessment), and SFC capacity building training by 2019.	Limited knowledge from DFD-Pemba staff on the role of co-management led by communities contributing to the overall PECCA management objectives	Workshop took place to establish a vision for co-management in PECCA, including how SFCs can obtain by-laws; Skills needed to do it; Agreed way forward More than 10 DFD staff attended, including at least 5 key ones	April 2018 workshop report (Annex 7)
Indicator 3.2. A 3–5 year strategic plan for PECCA is established by the Management Committee and reviewed by the DFD by 2020.	Current management plan for PECCA is not really operational.	None. Given the recent news that the management plan will be updated in the coming 2 years and decentralisation will change roles and responsibilities: need to change the focus of this indicator	None yet
Indicator 3.3. The PECCA Advisory and Management Committees are functioning by 2018.	PECCA Advisory committee is inexistent and it looks to challenging to convene. The management committee, called Fishers Executive Committee (FEC), is existing but not transparent.	None (same as above)	None yet
Output 4. Sufficient knowledge and incentives provided for both male and female fishers from the six target communities to participate in new marine resources co-management measures.			
Indicator 4.1. A minimum of 10 radio announcements on local stations relating to at least 10 incidents (e.g. new SFC by-laws; enforcement of by-laws; events) by the	3 radio announcements	2 new radio announcement (one in March 2018, one in December 2018) relating to 2 new closures (KP then Makoongwe) in 2018. An experience sharing radio	Radio announcement broadcasts (Annex 12).

	Baseline	Year 2 (VS baseline)	Source of evidence
end of 2021, against a baseline of three.		programme in May 2018.	
Indicator 4.2. 50% increase in the number of women and number of men attending regular meetings with SFCs by 2021 against the baseline set with each community at the start of the project's engagement with them.	No baseline set with Kukuu and Kisiwa Panza (work started prior to the start of the Darwin-funded activities), no record of the attendance to community meetings called by the SFCs yet.	KP: 213 men and 67 women, 17 meetings Kukuu: 474 men, 326 women, 26 meetings Makoongwe: 29 men, 8 women, 3 meetings Shidi 2 meetings (2 women and 48 men), and Stahabu 1 meeting (2 women, 28 men) and none yet for Michenzani.	SFC meetings records
Indicator 4.3. Credit scheme is accessed by c.270 men and 270 women across all 6 communities by 2021 (1 community in y1, 3 in y2, 4 in y3 and 6 in y4).	No credit scheme in place.	Pilot MKUBA in Kukuu, with 131 borrowers (68 females and 63 males) in 5 groups	MKUBA review report (Annex 8), MKUBA groups records
Output 5. Conservation and social outcomes of the project are evaluated and findings shared with target audiences (communities, government, conservation community).			
Indicator 5.1. Information sharing meetings hosted by DFD on implementing effective marine resource co-management in Pemba in 2019 and 2021.	Information sharing from Kukuu SFC to DFD-Pemba about first closures results (impact on octopus catch data).	Participatory data analysis hosted by DFD-Pemba, workshop in April 2018 proposed by the project but hosted by DFD	Fisheries management report (Annex 16)
Indicator 5.2. Uptake of SFC training materials and standard operating procedures (SOP) by MCU and associated DFD initiatives (SWIOFish) based on success of project interventions by 2020.	None	Uptake of SFC SOPs developed by the project team, by-laws development process agreed Good coordination with SWIOFish	Standard Operating Procedures as presented to DFD. April 2018 workshop report (Annex 7)
Indicator 5.3. Project case study documents downloaded from partner websites 200 times by the end of 2021.	None	Poster presentation planned in July 2019 WIOMSA Symposium (abstract accepted on SFC governance related to engagement with buyers)	MKUBA presentation in March 2019

	Baseline	Year 2 (VS baseline)	Source of evidence
		MKUBA presentation in FFI HQ in Cambridge from GreenFi and Mwambao	

3.3 Progress towards the project Outcome

0.1 No significant incidents of coral damage (greater than an area of 1 m squared) caused by human activity in any reef sites protected by community by-laws, against baselines by 2021.

No significant coral damage spotted since the coral reefs baseline surveys (2016 KP, 2017 Kukuu, 2019 Makoongwe) ; No dynamite incidents

- Coral reef monitoring are now carried out once a year

0.2 60% average reduction in number of boats observed using damaging or illegal fishing gears (e.g. drag nets, small mesh nets and traps, spear fishing with SCUBA) in sites patrolled by communities by 2021, as compared to the baseline at each site.

No record of boats using damaging or illegal gears in the sites patrolled by communities. Regarding any type of encroachment: Makoongwe is in its first year of patrolling therefore we cannot yet evidence any trend, they did have 2 occurrences of arrests in Feb 2019; in Kukuu the decrease in Y2 compared to baseline is of 90% (2 arrests); in KP 11 arrests in 2 periods of restarted closure have happened in Y2 (2018)

- We continue to mentor the SFCs to continue and improve their existing patrols: it seems some patrols need strengthening in Makoongwe, and there would be a need to shape a new patrol team in KP if we only work with 1 of the 2 villages to start a smaller closure. the 3 other SFCs being currently trained (Shidi, Michenzani and Stahabu) will set up their own patrol teams as well. There is also a plan to improve at sea procedures when patrols are done on motorised boats, with a training in mainland Tanzania (Tanga) scheduled in Y3Q2.

0.3 50% increase in the individual size of reef fish caught from selected key families and a three-fold increase in average individual weight of octopus caught in reef closure sites by 2021, as compared to the baseline number at each site.

57% increase on average octopus weight caught during opening periods in Kukuu, comparing (3-fold increase unrealistic, need to review the objective); only 7% for the same comparison in KP, which may be due to some enforcement difficulties. We are yet to see the results of Makoongwe opening.

On reef fish catches monitoring: during openings there appears to be a slightly higher proportion of omnivores and herbivores and a slightly lower proportion of piscivores, planktivores and predators. But no significant difference in terms of size observed yet.

- We need to go deeper into the analysis of our datasets regarding fish landed, to review the relevance of the indicator/target. A 3-fold increase is surely unrealistic, we will review our ambitions basing on some shared experience with other octopus management initiatives in the region.

0.4 50% increase in the number of fish over 30 cm total length observed from selected key families in reef closure sites, against baselines set for each community by 2021.

Some notable difference in fish observed in the temporary and permanent closures are the higher diversity index (reef fish diversity increased) and especially increase number of parrotfish (by 475% between 2017 and 2019 in Kukuu). This is also observed by local fishers.

- We will provide the results of socio economic surveys (household and PIA) analyses Indicator 0.5 will be recorded during PIA (Participatory Impact Assessment) in the next Half Year report. The results will also serve for steering the project in terms of support to provide to the communities for the rest of the project, as we will plan to finalise first management arrangements with the communities newly supported and consolidate in the last year.

- 0.5 60% of women and 60% of men surveyed in the six communities report an improved sense of overall wellbeing as a result of project activities by 2021 (including targets for: reduction in numbers of meals skipped, participation in decision-making, income as a result of either or both improved catch and access to credit – see section 14).

We will seek to confirm that number of meal skipped is a relevant indicator or if there is another one better suiting, when finalising the analysis of household surveys (conducted in January 2019)

- 0.6 70% of women, 70% of men, and 70% of SFCs/DFD-Pemba representatives surveyed perceive an improvement in SFC and DFD-Pemba's management effectiveness by 2021 as compared to the baseline.

Perception surveys (Participatory Impact Assessments -PIA) will be carried out in May 2019 Y3Q1.

3.4 Monitoring of assumptions

Outcome

Community and government stakeholders are willing to participate in collaborative co-management of PECCA.

Still true, but the governance issues experienced in Kisiwa Panza showed the activities can be considerably slowed down. Uncertainties regarding timing for important changes (decentralisation process under way in Zanzibar and upcoming General Management Plan for PECCA) does not make easy to navigate some of the governance-related activities.

Climate change does not result in a significant increase in demand for marine resources if droughts are more severe, or lead to significant coral bleaching, which will degrade the shallow reef habitat.

There has been no particular record of coral bleaching in the project sites' managed areas. 2017 rainy season (March-May, locally called "Masika") led to some occurrences of flooding; we pay attention to climate-related events.

The political landscape provides a stable environment in which to work over the project period.

Political atmosphere in Pemba (the fact the Island is mainly in favour of the opposition party) sometimes does not play in favour of smooth power exercise on particular aspects. This played a small role in making the governance conflict's resolution more complicated in Kisiwa Panza, and we now pay a particular attention to any sign of this complicated local politics potentially influencing village relationships during scoping visits to decide in which new communities we are going to work.

Population growth and immigration do not increase beyond predicted estimates.

Still true, no particular issue recorded.

Output 1

Communities wish to engage in local marine resource management. Our pilot study and awareness-raising activities reveal that the majority of local people in the area are supportive of conservation measures.

Still true, apart from a loud minority (young "Skin divers") in Kisiwa Panza that are against further management. We plan to get around this by only engaging with the village where they are absent. We saw in 2016-17 that when they see benefits for their neighbours many people are easier to convince. The neighbouring "easier" village in KP is repeatedly asking for continued support and we hope to reach success in this smaller context to potentially scale it up to the entire Shehia of KP

Community-led management is effective in achieving our outcome (based on initial successes during the pilot).

Still true, although some indicators will be reviewed in Y3 as some targets seem unrealistic or some results are slow indicate progress.

The number of fishers from outside PECCA does not significantly increase, and thus limit the effectiveness of community-led conservation.

Still true, no particular issue recorded.

Local community politics do not interfere with agreed management strategies; i.e. kinship, party allegiances

Still ok, issues around KP SFC election were in Y1 and no further issues related to that.

Output 2

Communities are willing to collaborate in the management of their shared resources. Initial awareness raising activities suggest that there is appetite for this.

Still true, this something we check in scoping new communities, the current issue with KP is described in Output 1 assumption above.

Neighbouring communities based elsewhere in Pemba who fish within the area are willing to recognise established collaborative management measures.

Some occasional challenges were recorded (some neighbouring fishers cutting-off buoys marking the managed area), there is a need to do more awareness raising in neighbouring villages and improve liaising with local authorities to try gain more support when some individual cases occur. However the assumption still mostly holds true as targeted management areas are where communities do not overlap.

There are no significant social or political conflicts that hamper any attempt at collaborative management.

There have been some in Kisiwa Panza, but this is now resolved with regards to politics, social issue: see Output 1's last assumption detailed.

Output 3

The MCU and the Department of Fisheries remain supportive of engaging in activities to improve their effectiveness. As they are formal project partners, we do not foresee that this will be a problem.

DFD-Pemba remain very supportive, central DFD is mostly supportive (more than in Y1) but some signs and setbacks for other similar activities led in Unguja lead us to be cautious with some topics, paying attention to give regular feedback to account on our progress step by step.

Zanzibar's government continues to support the PECCA initiative.

Yes, and there is a plan to update the management plans of every MPA of Zanzibar archipelago (including PECCA) within SWIOFish programme. This should happen within the next 2 years (we do not have more precision on the schedule yet).

Output 4

Activities under an existing grant improve economic incentives for locally led marine resource management, through positive engagement of the tourism and seafood sectors.

Yes, this is following the PMSD approach (mentioned in the description of activities in section 3.1, output 4). First results are very positive. The [news update in Oryx](#) is also detailing some of that.

Community members are able to attend regular meetings, and willing to engage in credit schemes. Our pilot project suggests that we need to enable women to attend meetings in particular.

Yes. Women form a majority in the MKUBA pilot beneficiaries (52%), which is helping to engage directly with women, as it is not so easy through public meetings.

Accountability and transparency mechanisms are upheld for the community credit scheme.

Yes, working well so far. Need to better keep track of the environmental actions undertaken as part of the eligibility conditions.

Output 5

Our data are able to detect a beneficial impact of the project.

Our octopus catch data are able to detect beneficial impact (and do show significant correlation to temporary closures, as we could detect differences between Kuuu and Kisiwa Panza, while the latter had suspended any management for over a year). Socio-economic impact and evolutions will be analysed in Y3, surveys have already partly been conducted.

The government and project partners remain committed to sharing knowledge and learning.

We need to regularly encourage DFD-Pemba sharing knowledge/information more (particularly through FEC meetings), there is an appetite to learn and communicate but there are some progress to be made to increase transparency and accountability. Communities are really committed to sharing/learning but need some mentoring and facilitation to be able to continue doing so.

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

The project aims to empower some 10,000 people across 6 fishing communities in the South of Pemba Island, within the boundaries of PECCA, to have more influence on their marine resources access and management. Open-access on marine resources still guiding principles on marine management policy in Zanzibar, combined with a strong and steady population growth and few alternative opportunities in terms of livelihoods in these relatively remote villages, are fuelling over-exploitation of marine species stocks and habitats leading to increased threats on marine biodiversity and reduced incomes from fishing activities.

Enabling local communities to manage their fishing grounds is aiming to give way to more sustainable fishing practice locally and contribute to better management various species stocks (eg. octopus, some reef fishes) and habitats (coral reefs, seagrass beds). In 2018, helping Kisiwa Panza resuming their local management through overcoming their local governance issues (election of a new SFC, building its capacities) and ensuring their wider community support to restart their new temporary closure in March 2018, contributed to this empowerment and to the overall management of PECCA. Our data also show that effective management allows to stop the decline of resources targeted and to increase it in some cases, thus having a direct impact on the income of concerned fishers.

Several incentives have been already developed to help individual fishers comply and positively engage in implementing their local management plan, adding value to their catch through octopus market systems development helping supported communities to take more advantage of the market via improved collective coordination with buyers around temporary closures (see details in section 3.1, output 4). The MKUBA pilot in Kuuu is working to enable individuals in several groups access short term small loans through the CECF model and help them face some of their expenditures instead of relying on increased fishing to do so. We also expect it will contribute for some to diversify their sources of income.

Empowering these local communities to enable them being responsible for decision making will also increase their sense of ownership and responsibility over the resources at stake and several members of both supported communities mentioned their pride to have some influence

on this, as opposed to feeling powerless and resigned when no local management was implemented.

An improved understanding of threats affecting shark species in the project area will enable informing the project and surrounding conservation community further design specific measures to reduce some of these threats in PECCA, and for the project, within the collaborative management group to gather neighbouring communities supported, contributing to better conservation of these vulnerable animals.

4. Contribution to the Global Goals for Sustainable Development (SDGs)

Goal 14 of the SDG is the most directly related to the project. This year the project made progress to sustainably manage and protect the marine and coastal ecosystems in three communities in PECCA (resuming effective management in Kisiwa Panza and strengthening Kukuu SFC to continue implementing their by-laws, starting in Makoongwe), and started building capacities of 3 additional communities.

Target 2.4: Octopus fishery on which communities focus their efforts in both communities supported is very important for food security: it is one of the most accessible with few capital investment (eg. no boat required to access coastal fringing reefs, fishing gears are usually iron bars or wooden sticks to catch the animals). It thus attracts many individuals in the project area representing an important source of their income and of food security for them. Several measures have been included in management plans of both communities specifically to avoid harming the ecosystem (coral reefs and reef flats) targeted by the closures, such as only allowing sticks as fishing gears, forbidding to anchor in the area or prohibiting to travel by boat through the area at low tide.

Target 5.5: women representation in the 2 SFCs is currently slightly lower than the 30% targeted (17% in Kukuu, 25% in Kisiwa Panza, 28% in Makoongwe) as the committees actually include a little more than the 10 individuals required. The project team is reiterating towards the SFCs the importance for women to engage more in the SFCs' activities (moreover with a significant of octopus gleaners being women) and we expect to increase the number of meetings gathering specifically women when engaging with new communities.

Targets 16.6, 16.7: The project team insisted particularly on transparency of benefits sharing from the income generating during opening days. There is relatively good clarity now on these mechanisms in Kukuu, and KP was also rather transparent during the 2 openings had in 2018. A particular attention has also been put on representing the various marine resources users groups (eg. seaweed farmers, boat fishers, octopus fishers, skin divers) and the 2 distinct villages within the Shehia during the election of the new SFC in the end of May in Kisiwa Panza. We believe this will help the SFC more widely representing the community.

5. Project support to the Conventions, Treaties or Agreements

The CBD focal point, Ms Esther Makwaia in Tanzania, is of our project (she has been contacted and explained it during the application process) and of our vision to scale-up local co-management on Pemba in the future. She showed interest in our initiative but we did not yet engage more with her and the Office of the Vice-President in our first year of work.

All of our official contacts has been with the government of Zanzibar, as the archipelago has a high level of autonomy in the federal political organisation of Tanzania, in particular concerning environment and fisheries topics. We plan to engage again with Ms. Makwaia once we will have achieved more progress within Output 3, supporting DFD-Pemba and PECCA through the joint production of guidelines to embed more active participation of SFC representative the Fishers Executive Committee.

6. Project support to poverty alleviation

The Octopus catch data analysis in the temporary closures show increased average and total catch, especially in Kukuu. As a result, fishers from Kukuu and KP SFC got premium prices from buyers when the closures were opened. There is therefore good evidence that establishment of more SFCs and adoption of better marine fishery management such as

temporary closures will support poverty alleviation in PECCA. These benefits have excited fishers from other areas who have been visiting Kuuu SFCs, such as Makoongwe, Shidi, Michenzani and Stahabu. Replicating and scaling temporary enclosures to a wider area is well under way and should be done in 6 communities before the project comes to an end.

The success so far of the MKUBA pilot can be highlighted as a notable achievement, in the sense that it seems clearly boosting management actions while providing poverty alleviation opportunities. But this opportunities need to be further supported to ensure the project doesn't lead to unsustainable debts in case activities are not viable and amounts borrowed too large.

7. Project support to gender equality issues

- In Year 2, the project kept better tracking of inclusions of women in various meetings and training, esp. at community level, with disaggregated informal on gender.
- However figures show limited numbers involved compared to men (which isn't very surprising giving predominance of men in all decision making culturally speaking in Zanzibar and Swahili culture
- Mkuba figures are more balanced and show that more than half of the beneficiaries are women. This also quite unsurprising comparing to figures often seen in community credit schemes (such as VSLAs) regarding gender participation (women can represent up to 80% of the beneficiaries, generally because they tend to group and function as such more often)
- There is definitely a need for the project to carry out some specific meetings towards women, asking the SFC to do so isn't enough and we will seek to organise regular women only meetings on a regular basis, and link to SFC meetings. The project will also look for existing women associations in the communities supported and explore how to work through these to engage more women and generate more links with local management topics.
- Gleaning of octopuses, shellfish and seaweed farming are the most obvious activities in which women are involved, touching upon those topics, the project team will particularly look for separate women and men meetings.
- Women tend to better respond to calls for meetings launched by women. The project team currently only has one woman. We need to look for additional local women to relay our objectives and help us reach out to women groups.

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8. Monitoring and evaluation

- The monitoring plan was developed over Year1 in 3 main phases:
 - o We started (FFI+Mwambao, September 2017) developing "Impact chains" under each output of the project (from 1 to 5) to assess what would short to long term impact the project is targeting to reach, in order to contribute to the project outcome. These are described in Annex 14.
 - o Within those 5 impact chains, we then identified what information/indicators we needed to collect during the course of the project. Some of the indicators are rather at activity-level, some short term impact and some longer term impact, where it is longer to see changes and that are often beyond the timeframe of the project. These identified indicators (which are also covering the ones identified in the logframe, but not only restricting to those) have then been grouped in 2018 Q1 into a table by themes/types (eg. biodiversity info, socio-economic info, local governance, institutional governance, etc.), frequency, location and person responsible. This grouping to help operationalise data-collection.
 - o In parallel to this, Mwambao also developed (2018 Q2-Q3) an harmonised dashboard to keep track of the progresses with the different communities they support, including in distinct projects in which they are also involved in (ie. in Zanzibar's main island and in mainland Tanzania). An outline of the dashboard is presented after the impact chains in Annex 14.
Files and base information are entered in separate documents and summarised and linked

to the spreadsheet of this dashboard. As a quite large table, it is updated at least twice a year, but the documents informing it are collected often on a high frequency (eg. SFC meetings, patrols records, SFC financial records are collected on a monthly basis; Mkuba accounts on a quarterly basis by Mwambao staff but a local focal point in Kukuu ensure fortnightly checks for each Mkuba group, etc.)

- After 2 years of implementation, with diverse level of success and history of support according to the communities, we realise that some outcome indicators are too ambitious:
 - the ones highlighting an impact on stocks recovery or catches (octopus and reef fish). A 3-fold increase of octopus size can only be achieved considering 1 day of catch, during the opening days following a closure (that is something we witnessed in Kukuu since Y1), but it is an unrealistic target if we consider a period spanning on both closed and open times. We haven't notice yet a 50% increase in the size of reef fish (even a few selected key families). Increase seem indeed possible but probably not at that scale or not within a short time frame. For the core permanent No-Take Zone in Kukuu, people and our surveys do observe an increase of fish biomass and particularly some species (parrotfish in particular), which is a good indicator of protection and future wider recovery. In parallel to that, we observe more diversity of fish compared to control areas and less sea urchins (which tend to proliferate when their predators vanish and are an indicator of unbalance reef system). We will propose revised targets in Y3Q1-Q2 in light of these results.
 - The target aiming to have 30% of women in each SFC is not completely out of reach but it is not easy to have any influence on that. SFCs are usually pre-existing in all Shehia/wards when we start support, even if they are not active for most of them. Although the Standard Operating Procedures (SOPs) for SFCs developed by the project in Y1 includes such a recommendation, they haven't yet been implemented by DFD which isn't yet actively monitoring the way every SFC work. This only happens when issues arise (such as with KP SFC in 2016-2017, when Mwambao and FFI facilitated organisation of an election to renew the SFC, following general request from the community, supported by local authority. It is then during elections that one can push for a criteria such as % of women members of the SFC to be respected. We are also now in regular to discussion with SWIOFish's consultancy on co-management which is using the SOPs we finalised last year, to see how that requirement can be made stricter.
 - Beyond this target of 30% women in SFC members, and before this is actively implemented in all the communities we support, we aim to embed local women associations' topics of interest in regular SFC meetings' agenda. To do so, we plan to investigate the communities we support to record the existing women groups (as VSLA/Mkuba groups, groups of seaweed farmers, petty traders, cultural/religious groups, etc.) and see how topics connected to marine/coastal resource management can be raised to SFC and discussed/better taken on board in the management planning and design of by-laws.
- There are some indicators for which we will adjust as results are surfaced (from Household surveys and Participatory Impact Assessments):
 - The perceptions by communities of SFC/DFD work, their efficiency and to which degree they agree/support it, what they would like to improve
 - How fishers perceive the current state of resources, and how they feel the project has an impact on this.
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9. Lessons learnt

- After 2 temporary closures conducted, we were disappointed to see the consensus for local management collapse again in KP. We have again investigated, leading various group discussions with diverging groups of interests to understand the diverse positions and what could be negotiated and what could not. We found out that most of the community (across the 2 villages making up the ward/shehia) was in favour of continuing the closures, but the tiny minority of young skin divers, were vocal enough (and with little control on them) to prevent

management to continue.

We also concluded that, being the community that Mwambao had supported from the beginning, there was maybe a need for the project to let the community think through what they were ready to commit to, without automatic support from the project. That is how Kuuu started: a very willing community (and its leadership) that started local management without waiting for project support, yet demonstrating they were ready to work with the project. We are thus communicating to KP that we would like to receive various indications that management can go on and on how they have solved their internal issues before continuing support to them.

It might well be with only a part of the Shehia, since a village is more proactive than the other, and able close an area falling in their own fishing grounds, and enforcing it, without involvement from the other village. The question of level of formalisation remain, as currently one can lead local management only through an SFC, which in the case of KP should involve both villages. We are exploring the possibility to create autonomous sub-SFCs committees, for each village.

- During Y2 we made sure we were involving neighbouring communities from the beginning when supporting a new SFC, to ensure common view on fishing grounds in terms of legitimacy to manage (eg. during participatory resource mapping, design of by-laws and communicating those by-laws and the closure's start to those neighbouring communities)
- There has been an improved financial tracking, through better procedures, additional human resource dedicated in Mwambao, some training (from FFI admin staff based in Nairobi) and increased use of tools. This did not prevent some variance compared to the budget but limited underspends. The project team will seek to better anticipate major expenditures for Year 3, and agree a strategy to avoid for instance the lack of use of consultant budget.
- We have continued to keep DFD informed (especially central DFD, who are not as directly concerned with our field activities and not as often contacted for paperwork), through good communication with SWIOFish (which is embedded in DFD structure to a certain extent), but also directly by sending regular updates, accessible documents, even when we receive no feedback nor acknowledgement of reception. Clear and regular information contributes to avoid surprises and wariness or misunderstanding, and helps coordinating. Given the development of various distinct threads of work regarding governance of marine and coastal resources in Zanzibar and in PECCA, coordination will become critical. We feel that, as with significant history of work in the area (since 2015, as FFI+Mwambao partnership), we have to take the initiative to trigger opportunities to communicate and coordinate. DFD has not yet taken a real on that and we are looking towards a forum of stakeholders for PECCA.

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10. Actions taken in response to previous reviews (if applicable)

- It was a recommendation to fast track the partnership with WCS Tanzania. We have started it in September 2018 and the field activities in November. Their recruitment process only ended in September and we have only been able to start from there. The first months of data collected look nevertheless quite promising with many interesting species listed already and good quality of the data collected.
- Regarding the link of this part of the project with the rest of the logframe: the information gathered will help inform then design how community-based management (already started) can have meaningful impact in more conservation issues such as vulnerable species management/protection. We hope this will provide some demonstration that local communities in Zanzibar can also have a meaningful and useful role in this type of conservation measure, not only in terms of resource management but also species protection.
- It has seemed unfeasible to prepare annual management plans for each communities supported by the project: so far we only managed to complete 2 management plans (for KP and for Kuuu). This is quite a lengthy process involving several days of dedicated support from the project field team to an SFC; repeating this every year would be too time consuming and cannot be done along with the other activities.
But there is indeed a need for reviewing the management in light of the progress implementing it and challenges faced. We also see in Kuuu that we need to strengthen and

develop the part on mangroves management now that the Mkuba pilot has triggered some planting actions.

- Some extract of the Monitoring plan (a big spreadsheet) are presented in Annex 18, it is the result of co-developed approach (by FFI and Mwambao) to measure the impacts and keep a central records of the available information in separate documents.
- The MKUBA pilot has been started with advice from IUCN office in Nairobi (Rob Wild) who was behind the design of the CECF model on which the MKUBA pilot co-developed (FFI, Mwambao and GreenFi) took most of the inspiration. We did not visit any site to do so but the experience and lessons shared by Rob Wild contributed to the development.
- We think that the series of trainings that we provide to the SFCs are relatively comprehensive: on SFC's roles and responsibilities, working partners, standard operating procedures, local conflict management and resolution, fisheries regulations, MCU (Marine Conservation Unit) regulations, records keeping and effective communication among and outside the community, participatory resource mapping. They are then accompanied to develop their by-laws and management plan, and mentored through establishing contacts with local authorities, implementing patrols, data analysis.

We feel that the most difficult aspect, with regards to SFCs activities and how they handle their local management, is to ensure that the right individuals are representing the community: they need to genuinely care for the management of resource (and thus have an interest to truly represent their peers, in their diversity, not only for their personal interests), they should be charismatic, proactive and able to negotiate and work without much material rewards (at least when starting). And on top that the community need to be willing to refer to this structure to represent them.

So far Kuuu SFC is doing a great job and present a number of the qualities mentioned above, but we continue to see it is more challenging for KP.

And there is yet little process in place providing any mechanism to influence an existing SFC. We went through the SFC election in KP (Y1) and saw the need for more guidance to be uptaken by DFD. This is proving to be a long term lobbying job, and so far SWIOFish is our side, with good will to coordinate, but relatively heavy and slow in rolling out its own activities.

11. Other comments on progress not covered elsewhere

- The decentralisation process is under way and the General Management Plan of PECCA is still planned for review (under SWIOFish programme) but with few details available on timing and how one can contribute to its design. Some governance changes will have to happen, affecting the way DFD and PECCA will function. It is thus difficult to anticipate how to propose additional support under output 3. This something we expect to clarify before end of Y3Q2.
- SWIOFish consultancy on developing co-management in Zanzibar's MCAs (including PECCA) has been quite collaborative with our project, further suggesting that DFD should officially uptake the various guidelines developed by the project (eg. SFC SOPs, process to develop and approve by-laws). We also started some joint-planning for our upcoming activities to avoid overlapping or inconsistencies. This is a effort that need to be continued, as the work plan is often reviewed with regular delays from SWIOFish programme in its implementation.
- Mwambao is now a much more recognised and official partner to DFD, partly because they received a contract in partnership with another consultancy firm (Agrotec) to develop fisheries management plans for the octopus, reef fish and small pelagic fisheries across Zanzibar archipelago (both islands). This provided Mwambao a more official partner status which is positively perceived by most of DFD, and a channel to streamline some recommendations with less wariness from some DFD individuals. Trust between the 2 organisations developed.
- **Other NGOs have expressed interest** during Y2 in supporting development of co-management in PECCA:
 - o **WildAid**, [an American NGO](#) with a particular focus on improving enforcement (through tailored capacity building and provision of specific enforcement means) has been scoping PECCA together with Mwambao (and consulting FFI) in July-August 2018. Recognising the

work and achievements with SFCs already supported by the project, and realising the scale of the needs to be addressed for the full PECCA to improve effectiveness, they explored possibilities to partner with Mwambao and secured some funding in February-March 2019 to start a partnership in May 2019.

FFI has been kept updated of the progress regularly and the focus of this new partnership WildAid-Mwambao, will be to improve enforcement supporting the relevant authorities (DFD and PECCA), and also the Collaborative Management Group (CMG) that we are starting to set in the current Darwin project. Support from WildAid will be centred around developing several guidelines in consultation with these stakeholders, that will provide added value to DFD and the CMG and come into synergy with our project's activities.

- **CORDIO East Africa**, [a Kenya-based NGO](#) focused on fisheries and coral reefs research for management, is currently scoping opportunities to partner with Mwambao to explore fishing gears' use and related threats in PECCA. FFI has also been consulted in this idea and there is a good communication established to ensure the activities under such a new partnership with Mwambao will also be consistent with the bases laid by our current project and will benefit to the ongoing dynamic, bring added positive impacts through synergy. We will be able to report more in details about the outcomes of this partnership start in next Half-Year report, as the activities (currently being designed) are scheduled to start in July 2019.

- Both of the new areas of work and involvements from other NGOs seem to acknowledge the early results of the current Darwin project and the bases it has allowed to lay, both with coastal communities and with the DFD and other authorities. It is stimulating to see these 2 NGOs, each with their own field of expertise which could truly add a lot of value to the ongoing work, planning to engage in PECCA. There is still a lot to achieve, and yet little financial/human sustainable resource available in place, in order to make this large Protected area effective in the long run. This is something this project has started to work on from the beginning (eg. building capacities at various levels, exploring local funding options to develop), and it is thus very encouraging to see the efforts about to multiply with additional help.

The project team will remain particularly attentive to coordination with these new stakeholders (who will nevertheless work through Mwambao), to make sure activities are well articulated so as to avoid confusion and pulling in opposite directions, but also for DFD to gradually better coordinate these efforts, bearing in mind all the work that is coming through SWIOFish as well.

12. Sustainability and legacy

Sustainability of this project is tied on the co-management of fishery resources in PECCA through building the capacity of SFCs. The SFCs are in relatively young and still rather unstable management (except Kuuu). Currently, six SFCs have been formed, three are active or partially active. Facilitated by Mwambao, the project has adopted a participatory approach that is aimed at cultivating ownership and stewardship of SFCs in fishery management. It is good to acknowledge that additional support from SWIOFish programme will also contribute to sustainability of the project. During Year 2 SWIOFish has really taken on board many activities / outputs from this projects and proactively coordinated or aligned with some of theirs.

There are also several additional stakeholders now interested in taking involvement in PECCA, directly or through Mwambao, and seeking consistency with our project seen as a solid pilot. The NGOs WildAid and CORDIO are finalising some documents to formalise involvement respectively in:

- providing enforcement guidance to DFD and increasing links with the community-based management we started developing.
- proposing some studies on fishing gears use and impact to later propose uptake of improved fishing gears, and building a regional communities learning network (linking Kenyan and Tanzanian communities for a start)

The Nature Conservancy also expressed interest in developing lessons sharing activities, and WCS Tanzania is expressing its will to develop research on sharks and rays in Pemba

considering the quality of data that have started to be gather in the last 6 months through our partnership.

13. Darwin identity

Darwin is a major funder of this project and has been acknowledged as such. The Darwin logo is used throughout the project on publicity materials – posters (such as SFC posters) and letters of invitation, projects documents sent to DFD-Pemba (eg. Standard Operating Procedures for SFCs). Stickers of the logo were placed on equipment purchased for the project team or communities (such as the motorbike for Pemba Field officer or in a corner of the notice board).

The project has been presented at FFI marine conservation event “[Joining the dots: local actions to save the ocean](#)” to be held on May 15th 2018 at the Royal Society in London and Darwin Initiative mentioned as main funder for the project during its presentation.

The project has been presented in Darwin’s February 2018 newsletter (“Life below water”) focused on marine conservation, and in Mwambao’s website and the organisation’s social media intervention (Facebook and Twitter).

14. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2018 – 31 March 2019)

Project spend (indicative) since last annual report	2018/19 Grant (£)	2018/19 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items (see below)				
Monitoring & Evaluation (M&E)				
Others (see below)				
TOTAL				

Annex 1. Report of progress and achievements against Logical Framework for Financial Year 2018-2019

Project summary	Measurable Indicators	Progress and Achievements April 2017 - March 2018	Actions required/planned for next period
<p>Impact</p> <p>PECCA's healthy and diverse marine ecosystem is managed effectively by empowered local communities and DFD-Pemba, increasing populations of vulnerable species, locally important marine resources, and peoples' wellbeing.</p>		<ul style="list-style-type: none"> -Reefs and reef flats effectively protected by 3 communities (only during half of Y2 for KP) with daily patrols and their management plans approved by DFD-Pemba -Some demonstrated signs of wider biodiversity gains (not only octopus) in temporary and permanently closed areas in Kukuu -Increasing individual octopus size in managed areas and related to closure timing -Increasing livelihood opportunities in Kukuu through to Mkuba pilot 	
<p>Outcome Six communities and DFD-Pemba manage marine resources sustainably in key sites, stabilising reef health and function across 10,500ha of PECCA, leading to improved wellbeing for c.10,000 fisher men and women.</p>	<p>0.1 No significant incidents of coral damage (greater than an area of 1 m squared) caused by human activity in any reef sites protected by community by-laws, against baselines by 2021.</p> <p>0.2 60% average reduction in number of boats observed using damaging or illegal fishing gears (e.g. drag nets, small mesh nets and traps, spear fishing with SCUBA) in sites patrolled by communities by 2021, as compared to the baseline at each site.</p> <p>0.3 50% increase in the individual size of reef fish caught from selected</p>	<ul style="list-style-type: none"> -No significant coral damage spotted since the coral reefs baseline surveys (2016 KP, 2017 Kukuu, 2019 Makoongwe) ; No dynamite incidents -No record of boats using damaging or illegal gears in the sites patrolled by communities. Regarding any type of encroachment: Makoongwe is in its first year of patrolling therefore we cannot yet evidence any trend, they did have 2 occurrences of arrests in Feb 2019; in Kukuu the decrease in Y2 compared to baseline is of 90% (2 arrests); in KP 11 arrests in 2 periods of restarted closure have happened in Y2 (2018) -57% increase on average octopus weight caught during opening periods in Kukuu, comparing (3-fold increase 	<ul style="list-style-type: none"> -Coral reef monitoring are now carried out once a year -We continue to mentor the SFCs to continue and improve their existing patrols: it seems some patrols need strengthening in Makoongwe, and there would be a need to shape a new patrol team in KP if we only work with 1 of the 2 villages to start a smaller closure. the 3 other SFCs being currently trained (Shidi, Michenzani and Stahabu) will set up their own patrol teams as well. There is also a plan to improve at sea procedures when patrols are done on motorised boats, with a training in mainland Tanzania (Tanga) scheduled in Y3Q2.

	<p>key families and a three-fold increase in average individual weight of octopus caught in reef closure sites by 2021, as compared to the baseline number at each site.</p> <p>0.4 50% increase in the number of fish over 30 cm total length observed from selected key families in reef closure sites, against baselines set for each community by 2021.</p> <p>0.5 60% of women and 60% of men surveyed in the six communities report an improved sense of overall wellbeing as a result of project activities by 2021 (including targets for: reduction in numbers of meals skipped, participation in decision-making, income as a result of either or both improved catch and access to credit – see section 14).</p> <p>0.6 70% of women, 70% of men, and 70% of SFCs/DFD-Pemba representatives surveyed perceive an improvement in SFC and DFD-Pemba’s management effectiveness by 2021 as compared to the baseline.</p>	<p>unrealistic, need to review the objective); only 7% for the same comparison in KP, which may be due to some enforcement difficulties. We are yet to see the results of Makoongwe opening.</p> <p>On reef fish catches monitoring: during openings there appears to be a slightly higher proportion of omnivores and herbivores and a slightly lower proportion of piscivores, planktivores and predators. But no significant difference in terms of size observed yet.</p> <p>-Some notable difference in fish observed in the temporary and permanent closures are the higher diversity index (reef fish diversity increased) and especially increase number of parrotfish (by 475% between 2017 and 2019 in Kuuu). This is also observed by local fishers.</p> <p>-We will seek to confirm that number of meal skipped is a relevant indicator or if there is another one better suiting, when finalising the analysis of household surveys (conducted in January 2019).</p> <p>-Perception surveys (Participatory Impact Assessments -PIA) will be carried out in May 2019 Y3Q1</p>	<p>-We need to go deeper into the analysis of our datasets regarding fish landed, to review the relevance of the indicator/target.</p> <p>A 3-fold increase is surely unrealistic, we will review our ambitions basing on some shared experience with other octopus management initiatives in the region.</p> <p>-We will provide the results of socio economic surveys (household and PIA) analyses Indicator 0.5 will be recorded during PIA (Participatory Impact Assessment) in the next Half Year report. The results will also serve for steering the project in terms of support to provide to the communities for the rest of the project, as we will plan to finalise first management arrangements with the communities newly supported and consolidate in the last year.</p>
<p>Output 1. Six SFCs have the skills, knowledge and confidence to implement sustainable marine</p>	<p>1.1 SFCs are functioning and represent a cross-sector of society, including an average composition</p>	<p>-3 SFCs are operational, including one new (Makoongwe), and one partially operational (KP during 6 months, handled 2 closures only in Year 2). 3 additional SFCs (Shidi, Michenzani and Stahabu) are elected and gradually</p>	

<p>resources management measures in local fishing grounds.</p>	<p>across all SFCs of 30% women, in three communities by y1, four communities by y2, 5 communities by y3, and 6 communities by y4.</p> <p>1.2 Six SFCs have implemented sustainable marine resource management plans to address locally defined conservation priorities (e.g. temporary or permanent closures, gear restrictions), against a baseline of 2, by 2021.</p> <p>1.3 12 community monitors trained and implementing fisheries catch data collection; 12 community monitors trained and implementing coral reef monitoring; six patrol teams trained and implementing patrols by 2021.</p> <p>1.4 60% average reduction in the number of breaches of SFC by-laws across all six communities as compared to the first year of by-law implementation in each community by 2021.</p>	<p>becoming active following capacity building and mentoring from the project. Currently there is an average of 22% of women (16/73) in the SFCs across the 6 communities supported by the project.</p> <p>-Kukuu has a management plans and by-laws; KP has by-laws and a drafted management plan (last closure ended in September 2018); Makongwe has by-laws also but no management plan yet; the 3 most communities are currently drafting by-laws to start closures.</p> <p>-A total of 8 community monitors have been trained for fisheries catch data collection, as well as 3 data entry officers and 1 district data manager; 8 community monitors have been trained and implementing coral reef monitoring in 3 communities; 3 patrol teams are trained but only 2 are implementing patrols in the end of Y2 (KP management on pause). 3 others have been trained.</p> <p>-Makoongwe: first year of implementation; Kukuu: 90% decrease in Y2; KP: 11 individual breaches as new baseline in Year 2 (closure restarted)</p>
<p>Activity 1.1. Train four new SFCs in good governance principles, conflict resolution, by-law formulation processes, patrolling, patrol record keeping, and financial management, and establish standard operating procedures, through three five-day training workshops held with each SFC (using materials developed during the pilot) and four learning exchange visits to pilot sites.</p>		<p>- 1 new SFC (Makoongwe) has been fully trained in Y2 on all the topics mentioned in Activity 1.1. in June-Oct. 2018. Shidi, Michenzani and Stahabu are in the process currently (training sessions are progressing in parallel), their training started in December 2018.</p>
<p>Activity 1.2. Conduct participatory assessments of key habitats, fisheries, and threats (to habitats, vulnerable species and livelihoods) with each SFC to establish possible reef management sites, using adapted Participatory Rural Appraisal tools as developed in the pilot.</p>		<p>-Participatory mapping of resources and fishing grounds have been conducted in the 4 new communities supported in Y2: first Makoongwe (Sept. 2018), then Shidi, Michenzani and Stahabu (altogether, in Feb. 2019). Mwambao team conducted coral reef surveys in KP, Kukuu (update) and in Makoongwe (baseline), in Feb.-March 2019</p>
<p>Activity 1.3. Facilitate participatory management planning workshops, totalling 9 days with each SFC, to establish local marine resource management interventions (e.g. temporary/permanent closures, gear restrictions) covering: identification of conservation targets (based on data from 1.2), by-law development; monitoring, control and surveillance planning.</p>		<p>-Participatory assessments of previous key sites included in Kisiwa Panza by-laws were reviewed with the new SFC and conservation targets and indicators reaffirmed in end Jan-early Feb. 2018 (Annex 13 : KP SOP training)</p>

<p>Activity 1.4. Provide training and ongoing mentoring to SFCs, patrol teams, and monitoring data recorders (2 per community) to effectively implement management plans.</p>	<p>-Ongoing training has been provided in Kuuu to link the new MKUBA activities to the management plan and monitor activities of MKUBA groups' members. We will seek to improve the tracking tools for this activity to account for the increase patrol effort resulting from MKUBA</p> <p>-Kisiwa Panza: we are planning to resume management with only one of the 2 villages in the Shehia, which is highly motivated and can start their own closure on their side of the island. We will explore with DFD-Pemba and PECCA if this is going to be only through a more informal "sub-SFC" or if some steps can be launched to consider splitting the Shehia in 2 (in idea that seem sensible to the head of DFD-Pemba)</p>
<p>Output 2. A Collaborative Management Group is formed between the six target SFCs to determine and address seascape management issues.</p>	<p>2.1 There is a functioning Collaborative Management Group of 12 members between the six target fishing communities by 2020, supported by DFD-Pemba.</p> <p>2.2 A joint management plan is established between six SFCs and the Collaborative Management Group to address threats to priority habitats and species of conservation and livelihoods importance by 2021.</p> <p>2.3 Briefing paper for possible interventions to reduce megafaunal mortality is produced, shared and discussed with project partners by 2021</p> <p>-Starting activities with a collaborative management group from Mid-Year 3 of the project after the exchange visit in mainland Tanzania (see Activity 2.2 below) and consultations with DFD and SWIOFish</p> <p>-The CMG will first be centred around Makoongwe, Shidi, Michenzani or Stahabu which are neighbouring communities sharing many fishing grounds. Depending on the initial joint enforcement and management activities go across those 4 by the end of Y3, we hope to scale it up to Kuuu and KP in Y4</p> <p>-To be done only in Year 4 once sufficient data has been collected and analysed (although first analyses have already started in the pre-assessment report completed this year)</p>
<p>Activity 2.1. Establish a Collaborative Management Planning Group with representatives from each of the six target SFCs, and hold a learning exchange visit with the group and key DFD-Pemba staff to other collaboratively managed fishing grounds in Tanzania e.g. Mafia Marine Park.</p>	<p>-We have started leading joint activities across the 4 neighbouring Shehias (eg. participatory resource mapping, inviting nrepresentatives from the neighbouring SFCs) of Makoongwe, Shidi, Michenzani and Stahabu</p> <p>In Y3Q1 we will conduct an exchange learning visit to mainland Tanzania in the seascape programme WWF Tanzania managed for over 10 years setting up a Collaborative Fisheries Management Area joining efforts of the local fishers committees (called Beach Management Units –BMUs- in mainland)</p> <p>DFD staff will also be part of the journey and we aim to replicate the functioning parts in Pemba after consulting and agreeing with DFD (and SWIOFish)</p> <p>Another NGO, WildAid, is also going to support developing compliance plans for such a Collaborative Management Group to operate and have articulated roles and responsibilities with PECCA-led enforcement</p>
<p>Activity 2.2. Develop standard operating procedures to establish the roles, rights and responsibilities of the Collaborative Management Planning Group in</p>	<p>To be started in second half of Year 3, following actions described just above</p>

collaboration with the MCU, to ensure harmonisation with MCU legislation and based on learning from the exchange visit.		
Activity 2.3. Plan and implement joint management measures with the Collaborative Management Planning Group in priority areas of shared fishing groups for key fisheries and vulnerable species (e.g. fishing gear restrictions), using baseline information from 1.2 and 5.1. Plans will be compatible with the PECCA General Management Plan and embedded into SFC by-laws and communicated through SFCs to ensure adherence to MCU legislation.		To be started by the end of Year 3 / beginning of Year 4
Activity 2.4. Determine the scale of threats to vulnerable species across the shared fishing grounds through an effective reporting network, including landing site data collection across the six target communities, and adjacent landing sites (in the case of legally fished species, e.g. sharks, humphead wrasse) and mortality reporting of illegally caught species (cetaceans, turtles). This will build on WCS's existing baseline data on marine megafauna by-catch.		Network of sharks and rays Community Data Collectors in place in 3 sites in the project area, collected data on mobile phones since February 2019 A first pre-assessment has been completed by WCS Tanzania, highlighting sometimes clear repartition in sharks and rays traders in Pemba and seeming to indicate that many species recorded so far a migratory/pelagic ones. We will seek to confirm how these initial conclusion verify over the coming year.
Activity 2.5. Identify possible interventions to minimise by-catch and hunting of vulnerable species, including megafauna across the collaboratively managed fishing grounds, based on findings in 2.4 and 5.1, and global conservation research and practice.		Year 4, based on information collected. It will now only target sharks and rays.
Output 3. Training and capacity building provided to DFD-Pemba to effectively support marine resources co-management in the long term.	<p>3.1 5 key DFD-Pemba staff attend institutional governance training (according to needs assessment), and SFC capacity building training by 2019.</p> <p>3.2 A 3-5 year strategic plan for PECCA is established by the Management Committee and reviewed by the DFD by 2020.</p> <p>3.3 The PECCA Advisory and Management Committees are functioning by 2018.</p>	<p>-Workshop took place to establish a vision for co-management in PECCA, including how SFCs can obtain by-laws; Skills needed to do it; Agreed way forward More than 10 DFD staff attended, including at least 5 key ones</p> <p>-None. Given that the General management plan of PECCA (and the other MCAs of Zanzibar) will be updated in the coming 2 years and decentralisation will change roles and responsibilities: we need to change the focus of this indicator</p> <p>-PECCA's Advisory Committee was never convened yet and we think an indicator about the topics raised and information sharing during FEC meetings would be more appropriate to reflect on PECCA's current running and the degree to which fishing communities are formally involved.</p>
Activity 3.1. Hold a series of workshops to train key DFD-Pemba and MCU staff in good governance practice, in accordance with the findings of the capacity assessment (January 2017), to improve implementation of existing governance platforms. Including: meeting facilitation skills (for Management Committee meetings); conflict resolution (between communities, and between SFCs and DFD-Pemba); transparency in sharing information regarding MCU legislation and procedures (e.g. SFC elections, distribution and use of income generated through tourism revenue).		<p>These 2 activities have been grouped and carried out in Y2Q1 (change request approved in March 2018), the training has been designed in collaboration with our consultant PHeylings and included 2 days of training with DFD-Pemba and MCU on the priorities listed in the cell above.</p> <p>Then 2 days of training will be conducted with all the SFC representatives gathered through the FEC, and the head of PECCA (PECCA manager and DFD-Pemba) to draw from practical examples of situations face by communities and illustrate how co-management is already happening and could be further supported.</p>
Activity 3.2. Hold a 3-day 'training of trainers' workshop, to enable DFD-Pemba staff to use the SFC training manual developed during the pilot project, in order to		

<p>increase the number of communities engaged in marine resources co-management. Involve DFD-Pemba staff in ongoing SFC training for on-the-job training.</p>	<p>This allowed to reach a common understanding on why and how co-management as a vision for PECCA could work articulating roles of communities and authorities but also highlighted the lack of clarity and tools/processes for current management and (of course) for a co-management vision. We are now in contact with SWIOFish consultant leading the co-management phase of this programme to see how to move forward given the upcoming changes (General Management Plan and decentralisation process)</p>
<p>Activity 3.3. Facilitate a strategic planning workshop (5 days) with DFD-Pemba to develop an action plan setting out 3-5-year management goals within PECCA for biodiversity conservation and community-based fisheries management. This will be in consultation with SFCs, relevant government departments, and initiatives (SWIOFish) to ensure harmonisation of marine-co management measures.</p>	<p>This activity was planned for Year 2, but we will need to change its focus to work on developing some standard operating procedures / guidelines to improve the FEC's effectiveness and/or formalise what would be SOPs for a district-level FEC (a "DEC"). This need has also been agreed by the Marine Conservation Unit of DFD and in coordination with SWIOFish. We are hoping to propose a change request within the first semester of Y3 to clarify our goals and start a feasible activity given those changes in the context.</p>
<p>Activity 3.4. Mentor DFD-Pemba to hold regular Management (twice a year) and Advisory (once a year) Committee meetings, inviting relevant government departments and actors (including the tourism sector and other NGOs) concerned with marine resource use and conservation within PECCA where necessary to share information, harmonise activities with national development plans, and facilitate collaboration.</p>	<p>As it will not be possible to convene any Advisory committee meetings (this Committee never really gathered since inception of PECCA and there is no sign DFD will agree to convene one), we are looking at the opportunity to support DFD-Pemba convene FEC meetings. Some further discussions are needed with central DFD and coordination with SWIOFish to confirm this is possible and define the time-frames along with the content and invitees. This should be gradually specified as we will work to the activity above (FEC standard operating procedures / guidelines). We will detail a change request as above before the end of Y3Q2.</p>
<p>Output 4. Sufficient knowledge and incentives provided for both male and female fishers from the six target communities to participate in new marine resources co-management measures.</p>	<p>4.1 A minimum of 10 radio announcements on local stations relating to at least 10 incidents (e.g. new SFC by-laws; enforcement of by-laws; events) by the end of 2021, against a baseline of three.</p> <p>4.2 50% increase in the number of women and number of men attending regular meetings with SFCs by 2021 against the baseline set with each community at the start of the project's engagement with them.</p> <p>4.3 Credit scheme is accessed by c.270 men and 270 women across all 6 communities by 2021 (1 community in y1, 3 in y2, 4 in y3 and 6 in y4).</p> <p>-2 new radio announcement (one in March 2018, one in December 2018) relating to 2 new closures (KP then Makoongwe) in 2018. An experience sharing radio programme in May 2018 (30 min of discussion about the experience from Kuuu SFC).</p> <p>-KP: 213 men and 67 women, 17 meetings; Kuuu: 474 men, 326 women, 26 meetings; Makoongwe: 29 men, 8 women, 3 meetings; Shidi 2 meetings (2 women and 48 men), and Stahabu 1 meeting (2 women, 28 men) and none yet for Michenzani.</p> <p>-Pilot MKUBA in Kuuu, with 131 borrowers (68 females and 63 males) in 5 groups. We are currently discussing internally and with GreenFi to see how to consider expanding that pilot: inside Kuuu (to cover more households and have more impact as an incentive to relieve some fishing pressure and further implement the management plan) and/or in a new communities. As for now, it seems unrealistic to roll out a Mkuba in all 6 communities</p>

		supported (a clear management plan is a prerequisite and it would require quite significant additional seed funding to cover a meaningful part of each communities).
Activity 4.1. Create awareness raising materials (e.g. posters) with SFCs regarding by-laws and management plans, and distribute in Pemba at landing sites across the Mkoani District, to enforcement authorities, fish traders, MCU rangers, community meetings. Also raise awareness across Zanzibar through radio programmes.		-A poster representing the SFCs and map of Makoongwe has been created to be displayed in the communities' notice board; a notice board will be installed in Makoongwe and in the 3 other new communities supported as well in Y3. -We plan to create some awareness raising material to display
Activity 4.2. Initiate regular joint meetings between SFCs and community members to enable community members to hold SFCs to account, in accordance with MCU legislation and SFC Standard Operating Procedures. Ensure meetings are held separately for men and women to maximise women's participation.		-The SFCs in the supported communities once they have completed their series of trainings, meet regularly, usually at least once. Community meetings called by the SFC are less frequent we do see those taking place every 2 months at least. They depend on the topics needed to be discussed, and the cycle of closures-openings of LMMAs Some women-only meetings have happened during Y2 (in Kuuu and KP) but they are not held on a regular basis yet
Activity 4.3. Establish a rolling community credit fund with at least two project communities, available to each community member upon compliance with SFC-led marine resource management plans. Based on IUCN's Community Environment Conservation Fund, seed funding will be provided by the project, and compliance will be checked by an appointed official (possibly from local government). Access to the funds will be through public meetings, and credit loan periods will be a few months long.		-The pilot community credit scheme launched, named MKUBA, was officially started in July 2018, providing loans with revolving funds to 3 groups of about 30 individuals in a first round, then 2 other groups have been added in December 2018m, while the 3 first continue their loans cycles. In total 131 members received 151 loans (£47 or £67) repayable in 3 months through weekly repayments. The initial capital (5 groups) amounts to £3,200, and has grown to £3,730 after 8 months (with fees and small fines being paid) -Some environmental actions rooted in some objectives of Kuuu's management plan have started to be led by individuals of the 5 groups, as a condition of access to the loans. Main collective actions are: planting mangrove seedlings in degraded mangrove areas, and taking part to additional patrols to safeguard the closure zone. -In Year we envisage increase the number of groups, create a community governance structure distinct from SFC (to avoid conflicts of interest or concentrating too much responsibilities), and improving the monitoring of environmental actions and of the activities funded by the loans
Activity 4.4. Explore additional incentives, such as gear exchange, to ensure fishers' compliance with resource management measures (especially gear restrictions).		To be started in Year 3, we are going to liaise with other organisations having experienced some of these in Kenya (eg. CORDIO, The Nature Conservancy)
Output 5. Conservation and social outcomes of the project are evaluated and findings shared with target audiences (communities,	5.1 Information sharing meetings hosted by DFD on implementing effective marine resource co-management in Pemba in 2019 and 2021.	-Participatory data analysis hosted by DFD-Pemba (Kuuu and KP SFC presented their monitoring results in December 2018), the workshop on co-management governance vision was held in April 2018 jointly called by the project and DFD, hosted by DFD in PECCA office (in Weshu)

<p>government, conservation community).</p>	<p>5.2 Uptake of SFC training materials and standard operating procedures by MCU and associated DFD initiatives (SWIOFish) based on success of project interventions by 2020.</p> <p>5.3 Project case study documents downloaded from partner websites 200 times by the end of 2021.</p>	<p>-Uptake of SFC SOPs developed by the project team, by-laws development process agreed Good coordination with SWIOFish</p> <p>-Poster presentation planned in July 2019 WIOMSA Symposium (abstract accepted on SFC governance related to engagement with buyers) MKUBA presentation in FFI HQ in Cambridge from GreenFi and Mwambao.</p>
<p>Activity 5.1. Design surveys of fisher behaviour (including catch of vulnerable species), household wellbeing, and marine resource governance effectiveness, and conduct them with representatives of each of the six communities when first engaging with them (to set a baseline), and then in years 2 and 4 to assess project impacts. The surveys will utilise a variety of methods, including participatory techniques and a Participatory Impact Assessment (PIA) in Year 4.</p>		<p>-Surveys of fisher behaviour have been conducted in Y2Q4 (Makonngwe, Shidi, Michenzani, Stahabu) and results will be analysed in Y3Q1</p> <p>-PIAs will be started in with Kuuu and KP in Y3Q1 under the form of semi directive interviews (focus groups and individual random interviews) to assess the changes perceived.</p>
<p>Activity 5.2. Conduct governance monitoring at all three levels of governance (SFC, collaborative and MCU) with each governance body, using organisational capacity assessments (adapted from the tool provided on Capacity for Conservation), to establish effectiveness of governance training and support, and identify further training and mentoring needs. This will be analysed in conjunction with participatory governance data collected under 5.1.</p>		<p>We have only started reviewing Kuuu SFC governance against several indicators (as well as including perception questions in the PIA surveys for Kuuu); KP facing again governance challenges isn't ready for such a monitoring and the other SFC have been active only since too recently.</p> <p>We are planning doing new SFC monitoring by end of Y3.</p>
<p>Activity 5.3. Conduct participatory data analysis with community monitors and the SFCs of data collected through local monitoring plans (e.g. fish catch, coral reef damage, change in gear use) and use findings to inform management planning.</p>		<p>Participatory data analysis has been conducted with Kuuu and Kisiwa Panza SFCs on octopus catch data in the end of 2018 and we will conduct new ones following after a few more openings, especially for the newly supported SFCs, likely by end of 2019 (Y3Q3)</p>
<p>Activity 5.4. Analyse and assess changes in governance, wellbeing, and reef ecosystem health in response to management interventions.</p>		<p>The changes in communities around these topics will be analysed from Y3 against the baselines and PIA surveys led in the communities whose support started in Y1 and Y2</p>

Annex 2. Project's full current logframe as presented in the application form (unless changes have been agreed)

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Impact: PECCA's healthy and diverse marine ecosystem is managed effectively by empowered local communities and DFD-Pemba, increasing populations of vulnerable species, locally important marine resources, and peoples' wellbeing.</p>			
<p>Outcome: Six communities and DFD-Pemba manage marine resources sustainably in key sites, stabilising reef health and function across 10,500ha of PECCA, leading to improved wellbeing for c.10,000 fisher men and women.</p>	<p>0.1. No significant incidents of coral damage (greater than an area of 1 m squared) caused by human activity in any reef sites protected by community by-laws, against baselines by 2021.</p> <p>0.2. 60% average reduction in number of boats observed using damaging or illegal fishing gears (e.g. drag nets, small mesh nets and traps, spear fishing with SCUBA) in sites patrolled by communities by 2021, as compared to the baseline at each site.</p> <p>0.3. 50% increase in the individual size of reef fish caught from selected key families and a three-fold increase in average individual weight of octopus caught in reef closure sites by 2021, as compared to the baseline number at each site.</p> <p>0.4. 50% increase in the number of fish over 30 cm total length observed from selected key families in reef closure sites, against baselines set for each community by 2021.</p> <p>0.5. 60% of women and 60% of men surveyed in the six communities report an improved sense of overall wellbeing as a result of project activities by 2021 (including targets</p>	<p>0.1. Snorkel survey assessments of reef sites before protection, and quarterly afterwards, to record and photograph coral damage.</p> <p>0.2. Patrol record books of SFCs and Collaborative Management Group patrols of fishing grounds; observations by fishers are reported to and recorded by SFCs.</p> <p>0.3. Community monitors measure the total length of fish from selected families and individual octopus weight caught from temporary reef closure sites.</p> <p>0.4. Underwater Visual Census transects counting the number of individuals over 30cm in these fish families before, and once a year after, management is implemented.</p> <p>0.5. Household-level surveys and group discussions conducted across all 6 communities ensuring a representative sample of different types of fishers, including 50% women before management interventions, and in 2019 and 2021.</p> <p>0.6a Participatory governance assessments conducted with members of each participating</p>	<p>Community and government stakeholders are willing to participate in collaborative co-management of PECCA.</p> <p>Climate change does not result in a significant increase in demand for marine resources if droughts are more severe, or lead to significant coral bleaching, which will degrade the shallow reef habitat.</p> <p>The political landscape provides a stable environment in which to work over the project period.</p> <p>Population growth and immigration do not increase beyond predicted estimates.</p>

	<p>for: reduction in numbers of meals skipped, participation in decision-making, income as a result of either or both improved catch and access to credit – see section 14).</p> <p>0.6. 70% of women, 70% of men, and 70% of SFCs/DFD-Pemba representatives surveyed perceive an improvement in SFC and DFD-Pemba's management effectiveness by 2021 as compared to the baseline.</p>	<p>community during household-level surveys and focus groups.</p> <p>0.6b Organisational capacity assessments conducted with each SFC and DFD-Pemba.</p>	
<p>Output 1. Six SFCs have the skills, knowledge and confidence to implement sustainable marine resources management measures in local fishing grounds.</p>	<p>1.1. SFCs are functioning and represent a cross-sector of society, including an average composition across all SFCs of 30% women, in three communities by y1, four communities by y2, 5 communities by y3, and 6 communities by y4.</p> <p>1.2. Six SFCs have implemented sustainable marine resource management plans to address locally defined conservation priorities (e.g. temporary or permanent closures, gear restrictions), against a baseline of 2, by 2021.</p> <p>1.3. 12 community monitors trained and implementing fisheries catch data collection; 12 community monitors trained and implementing coral reef monitoring; six patrol teams trained and implementing patrols by 2021.</p> <p>1.4. 60% average reduction in the number of breaches of SFC by-laws across all six communities as compared to the first year of by-law implementation in each community by 2021.</p>	<p>1.1 SFC meeting minutes; election records.</p> <p>1.2 Management plans; by-laws; patrol records.</p> <p>1.3 Training records; monitoring data collection records; patrol data records; post-training surveys.</p> <p>1.4 Patrol records; surveys of community perception of change in the frequency of breaches</p>	<p>Communities wish to engage in local marine resource management. Our pilot study and awareness-raising activities reveal that the majority of local people in the area are supportive of conservation measures.</p> <p>Community-led management is effective in achieving our outcome (based on initial successes during the pilot).</p> <p>The number of fishers from outside PECCA does not significantly increase, and thus limit the effectiveness of community-led conservation.</p> <p>Local community politics do not interfere with agreed management strategies; i.e. kinship, party allegiances</p>

<p>Output 2. A Collaborative Management Group is formed between the six target SFCs to determine and address seascape management issues.</p>	<p>2.1. There is a functioning Collaborative Management Group of 12 members between the six target fishing communities by 2020, supported by DFD-Pemba.</p> <p>2.2. A joint management plan is established between six SFCs and the Collaborative Management Group to address threats to priority habitats and species of conservation and livelihoods importance by 2021.</p> <p>2.3. Briefing paper detailing conclusions of threats affecting sharks resulting from fishing/community activities in the project area is produced, shared and discussed with project partners by 2021</p>	<p>2.1 Standard Operating Procedures; meeting records, confirming DFD-Pemba presence.</p> <p>2.2 Management plan.</p> <p>2.3 Briefing paper; project steering group notes.</p>	<p>Communities are willing to collaborate in the management of their shared resources. Initial awareness raising activities suggest that there is appetite for this.</p> <p>Neighbouring communities based elsewhere in Pemba who fish within the area are willing to recognise established collaborative management measures.</p> <p>There are no significant social or political conflicts that hamper any attempt at collaborative management.</p>
<p>Output 3. Training and capacity building provided to DFD-Pemba to effectively support marine resources co-management in the long term.</p>	<p>3.1 5 key DFD-Pemba staff attend institutional governance training (according to needs assessment), and SFC capacity building training by 2019.</p> <p>3.2 A 3-5 year strategic plan for PECCA is established by the Management Committee and reviewed by the DFD by 2020.</p> <p>3.3 The PECCA Advisory and Management Committees are functioning by 2018.</p>	<p>3.1 Training attendance records; surveys before and after training demonstrating a change in knowledge in institutional governance and SFC capacity building.</p> <p>3.2 Strategic plan; DFD meeting minutes.</p> <p>3.3 Meeting minutes, demonstrating evidence of collaboration and harmonisation of plans across PECCA.</p>	<p>The MCU and the Department of Fisheries remain supportive of engaging in activities to improve their effectiveness. As they are formal project partners, we do not foresee that this will be a problem.</p> <p>Zanzibar's government continues to support the PECCA initiative.</p>
<p>Output 4. Sufficient knowledge and incentives provided for both male and female fishers from the six target communities to participate in new marine resources co-management measures.</p>	<p>4.1 A minimum of 10 radio announcements on local stations relating to at least 10 incidents (e.g. new SFC by-laws; enforcement of by-laws; events) by the end of 2021, against a baseline of three.</p> <p>4.2 50% increase in the number of women and number of men attending regular meetings with SFCs by 2021 against the baseline</p>	<p>4.1 Records of dates and times of radio broadcasts, and announcement transcripts, verified by radio stations.</p> <p>4.2 SFC meeting records</p> <p>4.3 Credit scheme records; interviews with a sample of beneficiaries to verify records.</p>	<p>Activities under an existing grant improve economic incentives for locally led marine resource management, through positive engagement of the tourism and seafood sectors.</p> <p>Community members are able to attend regular meetings, and willing to engage in credit schemes. Our pilot project</p>

	<p>set with each community at the start of the project's engagement with them.</p> <p>4.3 Credit scheme is accessed by c.270 men and 270 women across all 6 communities by 2021 (1 community in y1, 3 in y2, 4 in y3 and 6 in y4).</p>		<p>suggests that we need to enable women to attend meetings in particular.</p> <p>Accountability and transparency mechanisms are upheld for the community credit scheme.</p>
<p>Output 5. Conservation and social outcomes of the project are evaluated and findings shared with target audiences (communities, government, conservation community).</p>	<p>5.1 Information sharing meetings hosted by DFD on implementing effective marine resource co-management in Pemba in 2019 and 2021.</p> <p>5.2 Uptake of SFC training materials and standard operating procedures by MCU and associated DFD initiatives (SWIOFish) based on success of project interventions by 2020.</p> <p>5.3 Project case study documents downloaded from partner websites 200 times by the end of 2021.</p>	<p>5.1 Meeting minutes; presentation slides.</p> <p>5.2 SFC training manual and letter of support from SWIOFish project coordinator.</p> <p>5.3 Google analytics for partner websites.</p>	<p>Our data are able to detect a beneficial impact of the project.</p> <p>The government and project partners remain committed to sharing knowledge and learning.</p>
<p>Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)</p> <p>1.1 Train four new SFCs in good governance principles, conflict resolution, by-law formulation processes, patrolling, patrol record keeping, and financial management, and establish standard operating procedures, through three five-day training workshops held with each SFC (using materials developed during the pilot) and four learning exchange visits to pilot sites.</p> <p>1.2 Conduct participatory assessments of key habitats, fisheries, and threats (to habitats, vulnerable species and livelihoods) with each SFC to establish possible reef management sites, using adapted Participatory Rural Appraisal tools as developed in the pilot.</p> <p>1.3 Facilitate participatory management planning workshops, totalling 9 days with each SFC, to establish local marine resource management interventions (e.g. temporary/permanent closures, gear restrictions) covering: identification of conservation targets (based on data from 1.2), by-law development; monitoring, control and surveillance planning.</p> <p>1.4 Provide training and ongoing mentoring to SFCs, patrol teams, and monitoring data recorders (2 per community) to effectively implement management plans.</p> <p>2.1 Establish a Collaborative Management Planning Group with representatives from each of the six target SFCs, and hold a learning exchange visit with the group and key DFD-Pemba staff to other collaboratively managed fishing grounds in Tanzania e.g. Mafia Marine Park.</p> <p>2.2 Develop standard operating procedures to establish the roles, rights and responsibilities of the Collaborative Management Planning Group in collaboration with the MCU, to ensure harmonisation with MCU legislation and based on learning from the exchange visit.</p> <p>2.3 Plan and implement joint management measures with the Collaborative Management Planning Group in priority areas of shared fishing groups for key fisheries and vulnerable species (e.g. fishing gear restrictions), using baseline information from 1.2 and 5.1. Plans will be compatible with the PECCA General Management Plan and embedded into SFC by-laws and communicated through SFCs to ensure adherence to MCU legislation.</p>			

- 2.4 Determine the scale of threats to shark species across the shared fishing grounds through an effective reporting network, including landing site data collection across the six target communities, and adjacent landing site). This will feed into and build on WCS's existing baseline data on sharks in Zanzibar.
- 2.5 Identify possible interventions to minimise the threats affecting sharks, including across the collaboratively managed fishing grounds, based on findings in 2.4 and 5.1, and regional/global conservation research and practice.
- 3.1 Hold a series of workshops to train key DFD-Pemba and MCU staff in good governance practice, in accordance with the findings of the capacity assessment (January 2017), to improve implementation of existing governance platforms. Including: meeting facilitation skills (for Management Committee meetings); conflict resolution (between communities, and between SFCs and DFD-Pemba); transparency in sharing information regarding MCU legislation and procedures (e.g. SFC elections, distribution and use of income generated through tourism revenue).
- 3.2 Hold a 3-day 'training of trainers' workshop, to enable DFD-Pemba staff to use the SFC training manual developed during the pilot project, in order to increase the number of communities engaged in marine resources co-management. Involve DFD-Pemba staff in ongoing SFC training for on-the-job training.
- 3.3 Facilitate a strategic planning workshop (5 days) with DFD-Pemba to develop an action plan setting out 3-5-year management goals within PECCA for biodiversity conservation and community-based fisheries management. This will be in consultation with SFCs, relevant government departments, and initiatives (SWIOFish) to ensure harmonisation of marine-co management measures.
- 3.4 Mentor DFD-Pemba to hold regular Management (twice a year) and Advisory (once a year) Committee meetings, inviting relevant government departments and actors (including the tourism sector and other NGOs) concerned with marine resource use and conservation within PECCA where necessary to share information, harmonise activities with national development plans, and facilitate collaboration.
- 4.1 Create awareness raising materials (e.g. posters) with SFCs regarding by-laws and management plans, and distribute in Pemba at landing sites across the Mkoani District, to enforcement authorities, fish traders, MCU rangers, community meetings. Also raise awareness across Zanzibar through radio programmes.
- 4.2 Initiate regular joint meetings between SFCs and community members to enable community members to hold SFCs to account, in accordance with MCU legislation and SFC Standard Operating Procedures. Ensure meetings are held separately for men and women to maximise women's participation.
- 4.3 Establish a rolling community credit fund with at least two project communities, available to each community member upon compliance with SFC-led marine resource management plans. Based on IUCN's Community Environment Conservation Fund, seed funding will be provided by the project, and compliance will be checked by appointed official (possibly from local government). Access to the funds will be through public meetings, and credit loan periods will be a few months long.
- 4.4 Explore additional incentives, such as gear exchange, to ensure fishers' compliance with resource management measures (especially gear restrictions).
- 5.1 Design surveys of fisher behaviour (including catch of vulnerable species), household wellbeing, and marine resource governance effectiveness, and conduct them with representatives of each of the six communities when first engaging with them (to set a baseline), and then in years 2 and 4 to assess project impacts. The surveys will utilise a variety of methods, including participatory techniques and a Participatory Impact Assessment (PIA) in Year 4.
- 5.2 Conduct governance monitoring at all three levels of governance (SFC, collaborative and MCU) with each governance body, using organisational capacity assessments (adapted from the tool provided on Capacity for Conservation), to establish effectiveness of governance training and support, and identify further training and mentoring needs. This will be analysed in conjunction with participatory governance data collected under 5.1.
- 5.3 Conduct participatory data analysis with community monitors and the SFCs of data collected through local monitoring plans (e.g. fish catch, coral reef damage, change in gear use) and use findings to inform management planning.
- 5.4 Analyse and assess changes in governance, wellbeing, and reef ecosystem health in response to management interventions.
- 5.5 Produce posters, presentations and reports to communicate data findings to communities, government departments (especially DFD) and the conservation community, and generate support for marine resources co-management.

Annex 3. Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 + 4 Total	Total to date	Total planned during the project
6A	SFC Standard Operating Procedures trainings	57 M 16 F	Tanzanian	12	61		73	50
6A	Management planning trainings/workshops	20 M 5 F	Tanzanian	12	13		25	50
6A	PECCA (DFD) governance and co-management vision workshop	21 M 4 F	Tanzanian	0	25 5 key DFD staff		25 5 key DFD staff	5 key DFD staff
6A	PECCA (FEC) governance and co-management vision workshop	34 M 4 F	Tanzanian	0	38 5 key DFD staff		38 5 key DFD staff	5 key DFD staff
6B	SFC Standard Operating Procedures training			1	5		6	5
6B	SFC Management planning training/workshop			1	5		6	5
6B	PECCA (DFD) governance and co-management vision workshop			0	1		1	1
6B	PECCA (FEC) governance and co-management vision workshop			0	1		1	1
7	SFC Standard Operating Procedures			1	0		1	1
7	SFC by-laws standard approval process			0	1		1	1
7	FEC Standard Operating Procedures/guidelines			0	0		0	1
9	SFCs by-laws and management plans			2	1 (by-laws)		3	6

9	Collaborative Management Group (CMG) gathering neighbouring SFCs management plan			0	0		0	1
12A	SFCs Octopus catch data database			2	1		3	6
12A	SFCs Reef fish catch data database			0	2		2	6
17	Active SFCs elected in supported communities	57 M 16 F	Tanzanian	2	4 (KP SFC on hold)		6	6
17	Active CMG gathering supported communities	0	0	0	0		0	1
23	CML Family foundation							
23	Arcadia foundation							
23	F3-Life (partner of GreenFi), additional seed funding for MKUBA pilot							

Table 2 Publications

Title	Type (e.g. journals, manual, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from (e.g. weblink or publisher if not available online)
Participatory Octopus Market System Development strengthens community management of marine resources on Pemba Island, Zanzibar, Tanzania	Journal news update	Kiran Mohanan and Tanguy Nicolas (FFI) Lorna Slade (Mwambao)	M	Indian	Oryx, The International Journal of Conservation Cambridge	https://www.cambridge.org/core/journals/oryx/article/participatory-octopus-market-system-development-strengthens-community-management-of-marine-resources-on-pemba-island-zanzibar-tanzania/5A28F6E00700F7801BCD71680A472F3E/core-reader