Department for Environment Food & Rural Affairs

DARWIN INITIATIVE

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Darwin Initiative Main Project Annual Report

Important note: To be completed with reference to the Reporting Guidance Notes for Project Leaders:

it is expected that this report will be no more than 10 pages in length, excluding annexes

Submission Deadline: 30th April 2017

Darwin Project information

Project reference	23-028
Project title	Coastal Communities for integrated seascape management in Atlántida Honduras.
Host country/ies	Honduras.
Contract holder institution	Fauna & Flora International
Partner institution(s)	LARECOTURH, Centre for Marine Studies (CEM), Cayos Cochinos Foundation (FCC), Bay Islands Foundation (FIB) and Cuero-y-Salado Foundation (FUCSA)
Darwin grant value	£306,552
Start/end dates of project	1st April 2016 - 31st March 2019
Reporting period (e.g., Apr 2016 – Mar 2017) and number (e.g., Annual Report 1, 2, 3)	Apr 2016 – Mar 2017 Annual Report AR2
Project Leader name	Vance Russell
Project website/blog/Twitter	
Report author(s) and date	Vance Russell (FFI) with contribution from Gerardo Yanes (LARECOTURH), Ivany Argueta (FUCSA), Jorge Anariba (CEM), Marcio Aronne (FCC), Geyvy Delarca (FIB), Julio Bernal and Quentin Marchais (FFI)

1. Project rationale

The seascape encompassing CSWR Cuero y Salado Wildlife Reserve), BIMNP (Bay Islands Marine National Park) and CCMNM (Cayos Cochinos Marine National Monument) contains inter-connected estuary, lagoon, mangrove, seagrass and coral reef habitat, and has high species diversity, including Hawksbill turtle (CR), Utila spiny-tailed iguana (CR) and Antillean manatee (VU). The Mesoamerican Reef system is globally important, yet Honduras, ranking 129 on the HDI, features in only 5 Darwin projects.

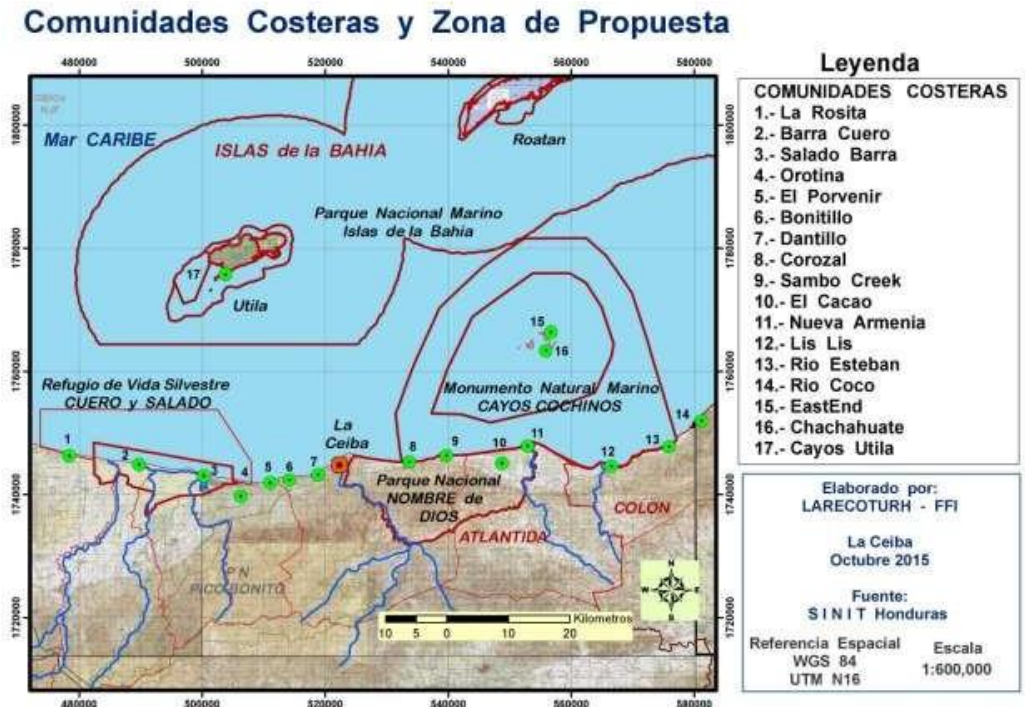
Yet despite this richness, the region's rich biodiversity is threatened. Fisheries have declined due to degradation of mangroves (cutting, livestock grazing, invasive oil palm) and estuaries (sediment, pollution), harmful fishing practices (fine-mesh nets, bottom trawling) and over-fishing (low compliance, weak enforcement). Coastal problems impact juveniles of reef species, such as commercially important yellowtail snapper.

Acronyms Glossary
APROCUS-La Rosita Artisanal Fishers Association
BINP-Bay Islands National Park
CEM-Centre for Marine Studies
CCNM-Cayos Cochinos National Monument
CSWR-Cuero-y-Salado Wildlife Refuge
DIGEPESCA-Fisheries and Aquaculture General Directorate
FCC-Cochinos Cays Foundation
FFI-Fauna & Flora International
FIB-Bay Islands Foundation
FUCSA-Cuero-y-Salado Foundation
ICF-The National Institute of Forest Conservation and Development, Protected Areas and Wildlife
LARECOTURH-Honduras Tourism Communities Association

Thus, depleted fish populations, sediment, pollution and consequent macro-algal growth negatively impact coral reefs offshore and ultimately the biodiversity, productivity and climate-resilience of the ecosystem.

An underlying problem is weak organisation and capacity of local groups, especially those who depend on subsistence fisheries. Many of these communities have low incomes, limited education or face gender discrimination. Communities share fisheries and depend on each other's custodianship of critical habitat, yet there is minimal dialogue between them. Lack of inter-community cooperation engenders conflict around fishing practices and access rights, weakens their collective voice in marine management decisions or negotiations, e.g., with fish wholesalers or tourism businesses, and undermines resilience. Many coastal villagers remain marginalised and endure severe poverty, despite the region's important tourism industry. At the protected area level, each MPA has a dedicated co-manager and has received some support for management and research, but often work in isolation.

This web of problems demands an integrated solution from socioeconomic and ecological spheres. FFI, LARECOTURH and partners have previously (19-017) strengthened the CSWR fishing cooperative and participatory governance system; this approach needs to be extended seascape-wide with approaches to conserve species and their habitats. Integrated seascape management requires pooling scientific and hitherto undervalued traditional knowledge and augmenting understanding of connectivity. Lastly, enforcement must be strengthened.



2. Project partnerships

FFI is the lead institution for the project and coordinates the Steering Committee Group formed at the start of the project with the other project partners: LARECOTURH, FUCSA, FCC, FIB, and CEM. FFI steers the project to keep it on the track set out in the log frame, while accommodating partner *modus operandi* and each partner site's own particular context and challenges. Briefly, the three local partners (FUCSA, FIB, and FCC) are MPA co-managers at three separate MPA sites in the department of Atlántida, Honduras, whereas the remaining two partners work across the seascape on specific issues. LARECOTHUR is an influential network focusing and leading on coastal community organisation and marine livelihood development, and CEM focuses on using science to protect marine ecosystems.

Notable gains in the alliance between the partners were achieved during the 2017/18 Financial Year. Several partners, for instance, noted that there was much more trust developed between them that did not exist before the start of the project. During the past year, partners began to examine joint proposals to new funding sources and sharing resources to hold meetings, workshops and complete many of the activities outlined in the project. The 1st meeting held in February in Cuero-y-Salado and planned for Utila

in April, featured over 80 fishers, including 10 women, was organised jointly by CEM and LARECOTURH. A second follow-up meeting is already planned for Utila in April with joint planning by FIB, LARECOTURH and CEM.

Partners have continued to meet together for dialogue through the project steering committee, made up of directors from each organization, to oversee project implementation and make tactical and strategic decisions, adapting implementation when necessary. In the first year, the steering committee communicated on a quarterly basis to discuss work plans, progress, delays and obstacles, together with ideas on how to address certain issues of interest within the project, but we shifted to more frequent monthly meetings to good effect. The steering committee interacted with staff from the different organisations according to the themes addressed in their agendas.

In Yr1 we reported on some of the challenges inherent in the partnership that were the following: a) Difficulties in agreeing on specific dates for coordinated inputs from partners; b) Need for more in-depth group discussion and agreement on some of the key activities and topics for the project; and c) Information exchange between partners, whilst permitting dialogue. On the positive side, these changed slightly, indicative of the evolution of the partnership's relationships. Conversely communications between partners, increased collaboration and timely completion of activities could still improve. In order to address these challenges and continue to improve work with the partners, we will start Yr3 with an all partner planning meeting in Honduras during the middle of April.

3. Project progress

3.1 Progress in carrying out project Activities

With many activities under way in the manner and time planned, most project activities continued to be implemented during Yr2. There was a temporary setback from the presidential elections in November 2017 through mid-February, 2018 that delayed many project activities by approximately 2 months. Although partners are back on track, several project meetings, workshops and deliverables were delayed by about 1 month. The election crisis created negative economic impacts on fishers, causing some negative impacts on fish sales and fewer tourists visiting the region during the high season. They are indicated in the detail of this section below.

More detailed descriptions of the progress of activities under the outputs are described below.

Output 1 Activities

Partners restored just over 11 hectares of mangroves at Laguna del Cacao, Utila and Cuero-y-Salado. FIB continues to use the CARICOMP methodology developed by CEM to monitor mangrove whilst FUCSA is using an integrated methodology that includes components of CARICOMP, Blue Carbon Initiative and Mesoamerican Reef System methodologies. CEM completed a mangrove drivers and strategies publication to reduce threats to their ecosystem and will present the results to the Stakeholder Forum during the first quarter of Yr3.

CEM finalised and published the seascape trawler assessment, and will begin to share it widely with agencies and stakeholder in the seascape, north coast and country. They will present the assessment results to an upcoming Stakeholder forum meeting in the 1st quarter of Yr3. Utilizing past studies on yellowtail snapper ecology and the most essential information related to the yellowtail fishery, CEM completed a synthesis document after substantial editing with FFI (1.7). CEM will present the results to the Stakeholder Forum in Yr3 and work with multiple fishers to improve management of the fishery using the management recommendations and lessons provided in the document.

Partners originally presented progress on conservation of the focal species marine turtles, manatee, and iguana to the Stakeholder Forum in August 2017 (1.8). Since the forum was established in March 2017, discussion happened between partners in a series of meetings.

Extensive work on conservation of the focal species and reduction of threats to them were completed during Yr2. They included the following accomplishments:

- **Manatee**—Leadership from FUCSA attended a veterinary and science-based manatee management workshop in Brazil and made connections with US-based manatee conservation groups to further strengthen their technical skills to conserve the species. SMART patrols will

begin to incorporate increased manatee monitoring and the Sea to Shore Alliance is slated to assist in necropsies and monitoring through a potential exchange in Belize or Florida. FUCSA is the only organisation conducting research on manatee in Honduras. According to FUCSA records manatee deaths were more frequent in the past but appear to be on a downward trend, e.g., fewer deaths, especially those cause by poaching or boat strikes. They are using SMART for manatee and reserve patrols to increasingly help tracking illegal activities but also improving understanding about the local manatee population.

- **Sea turtles**—Poaching decreased in CCNM during Yr2 and FCC worked to increased knowledge of marine turtles regionally through local festivals and community awareness raising. Although it appears the total number of poaching incidents is the same, the increased involvement in the community for turtle monitoring led to increased nesting beach and nesting records as well as increased patrols during turtle nesting season. Some of the worst poachers are now helping to monitor beaches and help to reduce poaching. The 2nd Turtle and Gararu Festivals in Cayos continue to build awareness in the communities for turtle conservation. One single volunteer patroller helped to triple the total number of nests recorded during monitoring.
- **Utila iguana**—FIB greatly improved its ability to reproduce Utila iguanas with the purchase of new incubators and other critical equipment to increase their capacity to fortify the Utila iguana populations. They also began pit tag marking long-term monitoring in the field and released 6 iguanas this year with plans to increase the releases in the coming year. A recent survey showed that although the percentage of people on the island dependent on natural resources increased from baseline, the number that consume iguana decreased from 10% to 2%.

At a communication level for 1.8, informative banners in Spanish and English produced in Yr1 to increase awareness for the conservation of mangroves and Utila Iguanas were continued to be used extensively in community meetings and environmental education activities with children. The community manatee monitoring methodology was updated and in Yr2 aquatic vegetation plots will be established. In addition to monitoring a total of 62 nocturnal and 25 daytime patrols in nesting beaches by 45 volunteer Conservation Guides were carried out led by FCC. Partners led and celebrated the Gararu festival with local communities to further increase environmental awareness of the protected areas and threatened species. Approximately 175 community members participated in the festivals.

Partners continue to use the Darwin logo for meeting/workshop sign-ins and banners for festivals and meetings. Several partners added the logo to their website and others are planning to do so once they finish constructing and revising their pages. Many use the logo in social media and as a signature in their emails.

Highlights under activity 1.9 included a joint proposal between FUCSA and FFI to the Marine Mammal Commission to augment manatee conservation efforts and launch a regional manatee network. Planning for the proposal created two additional connections between WWF-Mesoamerica and the Sea To Shore non-profit based in Florida, USA. The latter non-profit work extensively with manatee in the Caribbean and invited FUCSA and FFI to future trainings on sample and necropsy analysis of manatees in Belize and Florida. Another highlight is the possibility for a north coast wide marine plastics reduction project between all of the partners, municipalities and Honduras businesses, that was kicked off with a meeting to the La Ceiba mayor's office in February 2018. The project partners surpassed the project goal of 3 proposals for funding, submitting many proposals but securing funding from 8 sources for a total of nearly £. We expect there will be an increased number of proposals and success during Yr3.

Output 2 Activities

Seventeen total workshops with the Navy were delivered by the co-managers. Partners hoped for additional courses and collaboration but the presidential crisis limited interactions with the Navy during the latter half of the year. The issue has already subsided and partners will continue this fruitful collaboration in the coming year. The Navy has been an excellent partner in terms of gear decommissioning and patrols in each of the 3 MPAs.

For sharing information about fisheries under 2.2: 1) The Fishers Registry System, managed by CEM is in the process of upgrade to produce monthly reports that will be distributed to local stakeholders; 2) Fisheries information has been collected using OurFish and a portal to visualise information collected has been developed. In Yr2 a standardised report was produced and distributed to fishers using Ourfish

on a monthly basis or more. Over 80 reports were generated and shared; and 3) Implementation of the SMART tool is being tested by FCC and soon will be implemented by FUCSA. No decision has been taken for sharing touristic information but LARECOTURH will develop a system during Yr3. The topic will be discussed in Yr2 with the input from the Stakeholders Forum and project partners. FUCSA and the Fishermen's Association of La Rosita in CSWR coordinated on various patrol and information sharing to decommission illegal fishing gear including harpoons, diving tanks and 3 boats.

CEM has been making arrangements with several satellite monitoring companies and making alliances with the merchant marines to boost artisanal craft monitoring. CEM created a board of directors that includes the merchant marines, navy, the Fisheries and Aquaculture General Directorate (DIGEPESCA), the Institute of Forestry Conservation and the Institute of Anthropology to propose a legal framework that supports this initiative. CEM is waiting on Rare to schedule meetings to move forward on purchasing the devices necessary for tracking.

FCC shared its experience of preferential access with project partners. Managed Access led a workshop on access rights to partners in Honduras. In CSWR it is not possible to implement such a scheme before the boundaries are approved by the Government. A discussion is ongoing amongst the actors on this topic.

The monitoring system under activity 2.5 began with partners developing a protocol and system for monitoring fishing and the marine environment working with Wildlife Conservation Society Belize. The tool is already being used in CCMNM. CEM has several tools useful for the project initially identified as a part of this activity such as OurFish. The project co-managers have met to discuss tracking infractions. FUCSA has a written registry but not an electronic database. CEM is working to adapt a SMART (Spatial Monitoring and Reporting) tool and the fisheries app OurFish to use for monitoring and enforcement throughout the life of the project.

Output 3 Activities

With the support of the project partners and through an online bibliographic search database, more than 260 publications and reports related to ecological connectivity in the seascape were collected. Titled the 'Documentation Center for Coastal-Marine Resources in Honduras, the database is available here. CEM and FFI reviewed the documents for sub-products that could be drawn on in future for parameters relevant to connectivity for the Darwin seascape. To date, more than 1,320 sub-products with their properties distributed throughout 10 different fields, amounting to a total of nearly 13,200 being identified. The results of the knowledge gap review are being worked up currently for delivery in May, with discussions on the development of a suitable platform to share the information and provide an ever-growing resource for partners and stakeholders underway—either bespoke web development or implementation of Geonode.

Methodology to carry out a study of genomic connectivity for parrotfish and yellowtail snapper was developed. Samples of both species are being collected in CSWR, Utila and CCMNM and were sent to the Smithsonian Institution for genetic analysis. The results will be ready during 2018.

Marine biological data gathered in Utila to support the establishment of no-take and recovery zones using the AGRRA and CARICOMP methodologies. Final report and next steps will be discussed and agreed upon with local fishers.

Secondary information on the various marine habitats in the seascape have been gathered and analysed. This information has been used to analyse satellite images. Field work utilising 100 validation points has been carried out to calibrate and georeference various types of habitats. Information gathered plus validation points have been sent to the Smithsonian Institution to produce habitat maps for the Honduran North Coast.

Drivers of mangrove loss for Utila and CSWR have been identified and a strategy to tackle them is under development. Basic protocol for mangrove monitoring has been developed and monitoring plots established.

A synthesis report on the yellowtail snapper fishery was written. Reports on harvest using the OurFish application were produced for APROCUS members. Initial recommendations for management are within

the yellowtail report, with further genetic studies underway (see 3.4) to address knowledge gaps particularly with respect to the fidelity of yellowtail across the Darwin seascape.

A draft post-project monitoring platform will be presented to partners by the end of April 2018. Using information from DIGEPESCA on tracking of industrial fishing vessels and in collaboration with CEM, the Smithsonian Institution and the University of Queensland, an analysis was carried out to determine trawler movements in order to understand fishing effort and activity locations. Maps produced specifically for the project area did not show a significant threat of trawling in the area, although some incidents of trawling occurred in a community of the CSWR. With the information about industrial trawling, plus the analysis of approximately 100 bibliographic sources, a trawling compilation document for the project area was produced and is expected to be presented next forum meeting in May to agree on presentation to relevant authorities. It is important to note that a new fishing law has been approved by the Government but no prohibitions on fish trawling for the north coast were included in the new legislation.

Several reports have been prepared and shared, such as fish trawling summary, yellowtail snapper fishery and ecology, Utila no-take zone proposal, benthic habitat map report, NTZ network report, Ourfish reports, fishermen registry reports. Yr3 will see reports on the genetic analysis of the mangrove and yellowtail samples, the synthesis of seascape knowledge review, and review of MPA zonation. The finalised knowledge gap review and information platform will inform research proposals that will be elaborated and prioritised for future efforts towards seascape management.

Officially CREDIA has a remit to develop a national information system for monitoring of coastal and marine ecosystems, under funding from GEF. CEM has been meeting with CREDIA's director to learn about the system and developed a proposal to incorporate the Darwin seascape information management protocol at the national level, with the protocol ready for review/ratification by project partners. However progress of CREDIA's initiative appears to have stalled, although CEM is now part of the Technical Advisory Committee specifically in charge of knowledge management. There is some doubt whether or not CREDIA is the appropriate institutions for this information.

OurFish will be used widely by organisations and fishers to collect fisheries monitoring data. Directly related with activity 3.11, in which the platform will allow for automatic notifications, reports emission and sharing, linkage with social media platforms and RSS feed, and regular emissions of newsletters are among the strategies looked in order to keep seascape stakeholders informed. For the first year of this plan automatic notifications and sending of reports will be included via the information platform.

Output 4 Activities

One activity initiated included strengthening the Coastal and Marine Inter-Community Forum (MICMC) with 25% participation of key participants to date as well as action and finance plans. MICMC also helped strengthen community participation in the forum. LARECOTURH supported the establishment of the forum. The forum will be meeting on a regular basis and discussion and information flow with its members strengthened during Year 2. Multiple proposals were developed under activity 4.5 and submitted with nearly £1,000,000 in grants secured (see Annex 3).

Output 5 Activities

Following the FFI led a vulnerable groups webinar; LARECOTURH held a workshop with women fishers. Plans on a subsequent workshop for additional vulnerable are underway for Yr3. The women's fisher workshop identified understanding and improving fish supply chains as a critical need to improve livelihoods and economic stability.

Registration of fisherman in the co-management area of the project is complete as identified in activity 5.2. For CCMNM, CEM is working with FCC to complete local licensing during the first quarter of Yr3.

During Yr2 a new co-management agreement was developed between FUCSA, APROCUS and ICF. This is the first co-management agreement of its kind signed in Honduras. It should be fully executed early in Yr3.

LARECOTURH worked to improve the business capacity of APROCUS through the establishment of a wholesale fish market serving the towns of Boca Cerrada and Salado Barra. Capacity has been created in APROCUS both from developing project profiles as well as simple funding proposals. As a result, two proposals were produced, one of them being approved for office equipment, the other for management

and input of information in the OurFish application. Currently all work with fishers has been coordinated by FUCSA and APROCUS. During the governance workshop (5.6), APROCUS requested recognition of artisanal fishing from Honduran Government as an activity to combat poverty and the conservation of natural resources. CEM has been supporting regular meetings to evaluate in advance of their 2014-2018 strategic plan. APROCUS elected their new Board of Directors. More than 50% of the positions have been filled by women, including the president of the Board position.

Stakeholder mapping in 5.4 was carried out for CSWR and Utila. APROCUS training (5.3) is linked to 5.5. Additional training needs were identified including management of the collection centres. As specified by activity 5.7, the cross-learning visit to Mexico was planned and carried out. A report produced by CEM highlights key lessons learned and follow-up for the trip and is attached to this report.

3.2 Progress towards project Outputs

The project continues to be implemented largely as planned with several highlights during Yr3. All partners presented their activities to communities at the Inter-Community Roundtable meeting held in August. A field tour with project partners to visit Kanan Kay in Mexico to learn about sustainable fisheries management techniques took place in May 2017. A Spatial Monitoring and Reporting Tool (SMART) workshop was carried out in August. Project partners are increasingly using this methodology for patrols leading to increased decommissioning of illegal activities, particular fishing gear. Planning for a seascape wide governance workshop was initiated with a stakeholder survey and subsequent agenda development. Overall, coordination and collaboration between partners improved during the past 6 months.

Output 1 - Coordinated planning and management action across the seascape – FUCSA, FIB and LARECOTURH planted additional sites in mangrove raising the total area restored to just over 11 ha. Flagship species conservation continued successfully with increased awareness raising across communities in addition to the patrol activities under other outputs. FIB continued implementation of the Utilan Iguana breeding programme. LARECOTURH and FIB carried out a birdwatching workshop for local tourist guides with 25 participants. All partners presented their activities to communities at the Inter-Community Roundtable meeting held in August. A forum meeting with agencies and additional partners is planned for November. FCC led two community awareness raising festivals (Turtle and Gararu Festivals) with a total of 175 participants.

Output 2 - Compliance with regulations – A highlight during Yr2 was the SMART workshop with project partners and protected area guards. FUCSA immediately incorporated the methodology into their reserve patrols and it paid dividends with further decommissioning of illegal fishing gear and reduction of other illegal activities. The collaboration with Navy personnel continues—CEM made a formal request for inclusion of a training plan within the naval school and meetings were held with Rear Admiral Jesús Humberto Benítez, current Commander of the Navy to continue to explore ways to incorporate marine protected area and illegal fishing searches into Navy training and patrols. FCC, with the participation of 75 university and community volunteers, park guards and the Navy, carried out 10 weeks of night patrols during the marine turtle nesting season thereby helping to protect beaches from turtle and egg poaching and greatly increasing the total number of recorded nests for the hawksbill turtle population that nests in Cayos Cochinos.

FCC carried out 12 workshops of 2 weeks/workshop with 10 cadets and one officer with the Navy to increasingly improve the Navy patrols in the region. An additional 5 workshops were undertaken with the Navy by FIB and FUCSA. All co-management partners have initiated the use of SMART for patrols and continuously testing the system and developing cloud and database computing to track and analyse results.

Output 3 – Evidence base for coordinated seascape management – CEM produced a final report on yellowtail connectivity through the seascape project area and will share it with project partners and communities during an upcoming forum meeting. CEM also finalised a report on the shrimp trawler industry along the north coast of Honduras. Monitoring for the three focal species continues. FUCSA started water quality monitoring using various parameters of water quality. Information on the fishery is due to be presented at the upcoming Gulf and Caribbean Fisheries Institute conference, an important regional forum.

CEM directly transmitted information on ecological connectivity to several groups such as the Interdisciplinary Technical Team for WRCS, which consists of 24 persons from 11 organisations; constantly provided general information on the topic of ecological connectivity to fisherman groups from WRCS and Utila Cays for an overall amount of 60 persons in relation to the socialization for the establishment of no-take zones; via meetings with the fisherman forum which took place last February 26 with a total attendance of more than 30 fisherman (minutes from the meeting will be sent by LARECOTURH). Local authorities from the seascape have been provided with data on work carried out on the topic of ecology, including all 22 organisations composing the Bay Islands National Marine Park's Administrative Group; Municipal Association of the Municipalities of the Center of Atlántida Department which is formed by 5 municipalities has been informed on the topic; in addition a local government network for the northern coast of Honduras is currently being formed, consisting of more than 25 municipalities - the network is being provided with information on the topic of connectivity through conserving important ecological areas.

A clean-up of the information synthesis is currently being carried out, with a final summary report anticipated by the end of May 2018. Analysis will focus directly on the findings of available information at the local, regional and transboundary level, and how it relates to the evaluation of ecological connectivity. The development of a platform to make the library of information (and associated data where available) easily accessible to stakeholders is currently being planned for deployment during Yr3.

An information sharing system has already been designed and TOR drafted but has yet to be discussed by project partners. CREDIA was working on a monitoring mechanism under GEF funding, but no further progress on this initiative has been made. Nevertheless, CEM is now part of the Technical Advisory Committee specifically in charge of knowledge management. What is currently being done at CREDIA is serving as a file repository, not currently aligned with the project's goals, but could provide a window of opportunity for the development of extraction of document properties web services, data analysis, advanced search and heuristic systematic model of information processing (machine learning) modules based on documents' properties. A draft post-project monitoring platform will be presented to partners by the end of April 2018.

Output 4 – Seascape stakeholder forum and network – Project partners led an Inter-Community Roundtable meeting on August 11. Thirty five community leaders participated of which 15 were women. At the meeting, each of the partners presented their project commitments, responsibilities, deliverables and expected results. Partners reinforced the overall goal of the project to improve management based on social cohesion and informed decision-making. Much more needs to be completed during Yr3 to fully implement the activities under Output 4 and plans and activities are already underway to fully accomplish Output 4 during the course of Yr3.

Output 5 – Community capacities and empowerment –To date, all fishers are registered in the project area and hold fishing licenses. During August, project fisher licensing activities focused on the island of Utila, registering a total of 91 licenses for crafts, trade, sports and boat by DIGEPESCA, and 48 resident licenses. Local licensing for Cayos Cochinos only fishers will be completed during April 2018 and Utila is already complete. A co-management agreement between FUCSA, ICF and APROCUS was signed.

3.3 Progress towards the project Outcome

The essential purpose of the project, to integrate collaborative management across 3 MPAs in an 800,000 hectare seascape, is well underway and outcome indicators remain valid. It is clear there exists a joint effort between the project partners and trust and collaboration between all partners has significantly increased during the life of the project. Project partners have collaborated on numerous projects including governance, access rights, mangrove restoration, reduction of threats to focal species, increased community involvement and improved livelihoods as measured by project partners. Communities and fishers are being registered in a centralized project database with accompanying licensing and the app OurFish used to track harvest with collecting centres providing data from catches.

Partners developed a simplified methodology for monitoring mangrove restoration, technological tools for data gathering relevant to country level fisheries, a database for information sharing, and protocols for studying the ecosystems of the project area. Partners worked to strengthen APROCUS and began socioeconomic studies covering the fishing reserve zone. Partners completed the water quality

monitoring methodology to start addressing pollutants, nearshore water turbidity and sedimentation. The water quality methodology is applicable to other sites outside of CSWR.

The 2nd Gararu festival helped increase community awareness and participation in marine conservation. FIB developed and produced environmental education materials for mangrove and Utila iguana conservation during workshops with navy personnel and local guides in training.

The first step for recognition of access rights continued with a total registration of 388 artisanal fishers. Decommissioning illegal fishing gear has continued with sustained patrols by park guards and the Honduran Navy.

Some initial achievements were registered for sustainable livelihoods. For example, there was an increase in family fisheries income during Yr1. This was due to an increase of $0.26/lb in the price of fish, representing an increase of 24% for the community of Boca Cerrada. In a second community where the survey was employed, LARECOTURH found an increase of $0.14/lb in prices representing a 14% increase. During Yr2 fish prices did not change but total sales increased by 25%.

3.4 Monitoring of assumptions

All 23 assumptions stated in the logframe continue to apply and be relevant to the project. Assumption statements have been shortened to save space. For complete statement please refer to it. Below are brief comments related to each assumption.

OUTCOME

Assumption 1: We assume that government and co-managers continue the policy of strengthening community participation in MPA governance. Comment: Co-management agreement signed between FUCSA, APROCUS and ICF that takes into account ways to legally incorporate APROCUS (fishing association) in the co-management activities (see activity 5.3).

Assumption 2: We assume that if authorities, co-managers and stakeholders perceive benefits from seascape-wide networking and cooperation, they will continue to collaborate. Comment: All participating project partners and communities have expressed the importance of this project for consolidating seascape work and cooperation. Perceptions will continue being monitored.

Assumption 3: For each of the three flagship species there are known threats, which can be mitigated through increased public engagement. Comment: Main threats for their survival are known and protocols for monitoring are developed or have been updated. Community members are participating in monitoring, conservation and awareness activities (activities 1.2, 1.8). The baseline has been collected and is reported on in Yr2.

Assumption 4: We expect to be able to report continuing post-project improvements in species populations, ecosystem status, fish populations and catches, and livelihoods beyond End of Project (EOP). Comment: There is a strong desire by partners to continue this monitoring after EOP. Monitoring protocol and systems for species, and habits are being developed and updated (see activities 1.2, 1.8, 2.2 amongst others).

Assumption 5: We assume that the direct improvements obtained by 250 community members, fishers and other vulnerable groups, will benefit their households. Comment: During Yr1 of implementation three fish landing centres were created in communities creating 9 positions (6 women, 3 men) managed in a rotation to benefit more community members. Other income opportunities have resulted from increased tourism related activities as well as a fishing tournament and direct sales by community members (activity 5.9).

Assumption 6: Quantitative income indicators assume a reasonable degree of success in enabling community groups to obtain additional funding for livelihood initiatives from other sources. Comment: Baselines have been determined and monitored throughout the project. Work on livelihoods was a major part of work of Yr2 activities.

OUTPUT 1

Assumption 7: Habitat measures would be developed through participatory governance mechanisms involving MPA co-managers and stakeholder groups. Comment: Co-managers and stakeholders are

committed to this approach. Information gathered and interaction with the stakeholder forum will provide the right channels for reaching agreements although much work remains to be completed in Yr3.

Assumption 8: We assume the oil palm managers will continue to dialogue with stakeholders and authorities about reducing proven impacts of their operations. Comment: In 2016 FUCSA signed an MOU with the JAREMAR-CAICESA Group (processing oil palm plant located within the seascape around CSWR). Also, FUCSA has a seat in the Advisory Certification Committee for the Roundtable on Sustainable Palm Oil representing the environmental sector of Honduras and continues to work with industry to reduce Palm Oil threats.

Assumption 9: We assume that the NGO co-managers of the three MPAs will broadly maintain their current levels of management capacity and operating revenue as a minimum. Thus, the improvements through this Darwin project will be incremental. Comments: Co-managers are in constant search for additional funding and applying for funding to multiple donors.

Assumption 10: The agreed priority management measures will be initiated through this project, to achieve EOP aims, and co-managers will continue the activities beyond the project. All parties will cooperate with efforts to secure additional funding. Comments: This assumption is one of the very essences of the project and the coordinated work to date supports this assumption.

OUTPUT 2

Assumption 11: We assume that, CEM, the Smithsonian Institution and the Government of Honduras will continue with the roll-out of the surveillance, monitoring and fisher security system. Our project's role is to complement with activities to build Navy personnel capacity and to increase the social acceptability of regulations through stakeholder participation. Comment: Although work with the Navy has been challenging due to the armed forces involvement during the presidential election crisis, partners were able to hold a number of workshops and trainings with navy personnel. We assume work with the navy will continuously improve once the navy goes back to its regular duties.

Assumption 12: We assume that the Government will continue its efforts at a national level to establish effective control of marine activities, which have already delivered noteworthy results. Comment: during the new fisheries law comment period partners will be gathering input from communities and providing it to General Directorate for Fisheries and Aquaculture.

Assumption 13: We assume that empowerment, especially secure resource access and increased involvement in generating and debating information for management decisions, will increase willingness to comply. Comment: perceptions of the feasibility of compliance will depend on the progress of improving livelihoods, so there is an iterative process of improving compliance and livelihoods in tandem.

OUTPUT 3

Assumption 14: We assume the Honduran Government will be open to dialogue about restrictions on bottom trawling and other destructive fishing practices. Comment: bottom trawling is already infrequent, and is prohibited within the MPAs but not seascape-wide. However, recent legislation relaxes restrictions and it is important to counteract initiatives to revitalise industrial fishing and expand its activities. The recently produced report on trawler fishing by CEM should help to advocate for a trawler ban.

Assumption 15: We assume the Honduran Government, co-managers and communities will be willing to use evidence based on scientific and traditional knowledge to support new conservation and livelihood measures.

OUTPUT 4

Assumption 16: We assume co-managers are willing and interested in aligning and developing joint regulations and marine management plans. Comment: The three MPA co-managers are part of the project and continue to be committed to do so.

Assumption 17: We assume that, with good preparation and expert facilitation, any barriers to networking between coastal communities can be overcome. Comment: partners met frequently, both informally and formally during the year and all partners noted continuous improvement in networking within the project and to new partners.

Assumption 18: We assume that donors will be interested in community proposals developed through

this process. Comment: Despite GEF funds not supporting project activities yet, other donors are expressing interest and partners continue to put together funding proposals.

OUTPUT 5

Assumption 19: We assume that coastal communities will be willing to invest the time necessary for effective participation. Experience suggests that they will if they truly influence decisions.

Assumption 20: We assume that fisheries access rights system can be readily adapted to local context and needs. Comment: CSWR and communities are interested in the approach and have almost finalised the register of fishers (activity 5.2).

Assumption 21: We assume that coastal communities will have sufficient commitment to develop the capacities needed for improved fisheries-related livelihoods and for improved or new enterprises linked to the tourism market in this part of Honduras. Comment: APROCUS has been improving capacities, implemented collection centres, and started to open direct markets for their products. Communities at CSWR are very interested in developing sustainable livelihoods linked to the tourism (birdwatching) and sport fishing.

Assumption 22: We assume that existing tourism in this part of Honduras will be maintained so that there continues to be scope for small, ecotourism-related enterprises. Comment: For 2017-18, the expected growth in the tourism sector is expected to grow between 10 to 15 %.

Assumption 23: We assume that food insecurity is caused largely by limited capacity to access resources, low income from fishing, high dependence on fishing and declining fish stocks in estuarine and nearshore areas.

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

The project is projected to include at least 250 households to contribute to poverty reduction with involvement of more than 500 fishers. The conservation and proper management of the resources of the protected area, entails the generation of opportunities for the Marine Landscape, associated species and ecosystem services, such as water quality, recreation and biodiversity. Economic alternatives are starting to be incorporated into the project and organisations strengthened, for example through the establishment of two fish landing centres in APROCUS communities and a third in the community of Rio Esteban. Through these centres, women and youths are integrated in the administration of the cooperative through rotating jobs that allow the generation of an average income of $150 (£116)/month/person. Additionally, fisher's wives offer food services to domestic and foreign tourists and families benefit further through provision of boat transportation and guide services.

Work to increase natural capital is occurring at multiple levels from jurisdictional, in the form of management of the protected areas, to increased efforts to restore and protect threatened or endangered species. Spatial analysis of the ecosystem is not only helping improve management but also increasing access to seascape information. Landscape to site scale monitoring as well as standardisation of monitoring methods across participating partners and the seascape further helps increase the quality of data, access to information, increased social capital of the organisations and contributes to testing the long-term success and replicability of the project.

Natural capital is further increased through ecological and socioeconomic studies, such as the yellowtail and parrotfish population study. FUCSA is currently working with the local university to quantify carbon sequestration in mangrove and seagrass ecosystems as well as water quality/quantity in CSWR. This research also helps secure local community access to resources and helps the artisanal fishery become more resilient and sustainable. A further benefit of this work is building knowledge and capacity of the local cooperative in managing fish stocks.

With the implementation of the Darwin Project, people in the communities are taking increased ownership of the management and protection of marine resources. In Cayos Cochinos, for example, community participation in the conservation of sea turtles allows discussion of conservation of other species. In CSWR a co-management agreement was signed between the cooperative, management authority and Honduran government, the first of its kind in the country. In Utila, community members are increasingly aware of and helping with monitoring of iguana, mangrove restoration and even connecting marine plastic pollution as a threat to the island's livelihoods and sustainable conservation.

The identification of drivers or factors that affect and influence the ecological stability of mangroves and threatened species in Utila contributed to establish improved management of those species on the island. Similar to the approach to mitigate solid waste in Cayos Cocinos, local communities are addressing garbage and its impacts on the project's priority species and mangroves whilst linking their work to broader environmental awareness raising. In addition, the informative banners will be placed in strategic places will help tourists and locals to learn about Utila's unique species and biodiversity.

As another example, the hawksbill turtle, a focal conservation species for this project, is a charismatic species in the worldview of the Garifuna culture. As a result, promoting activities such as the 2nd Gararu and turtle Festival contributes to recognition of traditional knowledge and expertise and connects cultural preservation to long-term turtle conservation and has greatly increased community ownership in marine turtle conservation.

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

The project as a whole contributes to several Sustainable Development Goals:

SDG 1 End poverty in all its forms everywhere. All activities implemented this year contribute to this SDG.

SDG 2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture. Activities in Yr2 contributed to this SDG by improving commercialisation of fishing catches through creation of fish landing centres and associated new employment opportunities linked to those centres as well as support in the development of commercialisation pathways for fish products.

SDG 5 Achieve gender equality and empower all women and girls. Gender equity is widely promoted and women take a more active role every day. The project contributed to this SDG in Yr2 through an increase in participation of women in the management of the fishing association APROCUS. This increase is evidenced in a higher representation of women in the newly elected Board of Directors including the president and vice-president. Contributing to the prominent participation of women is the newly established fish landing centres and by the increased participation in tourism activities such as selling food and handicrafts and guide services. All co-managers reported increased participation by women is being encouraged in workshops and meetings. Several partners reported development of livelihood related ventures specifically targeted to women as a future activity.

SDG 14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development. In Yr2 the project contributed to increased scientific knowledge of the seascape by collecting, generating and analysing scientific information related to species (biological information in Utila to propose no take areas for fishing, compilation information of yellowtail snapper), ecosystems (collection and analysis of information for habitat mapping), improving protection of endangered species through species/habitat protection (protecting marine turtle nesting sites), environmental education/awareness activities (Gararu festival in CCMNM), fish harvest information (OurFish) improvement of monitoring protocols for certain ecosystems (mangrove) and certain species (Utila iguana, manatee), and identification of threats to mangroves. Contributing to SDG14 was improved access rights for small-scale artisanal fishers, access to markets and by supporting the establishment of fish landing centres. Strengthening the collaboration between MPA co-managers and other stakeholders to improve management of the entire seascape likewise contributed to this goal.

5. Project support to the Conventions, Treaties or Agreements

The Darwin project focuses on CBD Articles 8 (in-situ conservation) and 10 (sustainable use of biodiversity) and supports achievement of Aichi targets under Strategic Goal B, Reduce the direct pressures on biodiversity and promote sustainable use. Targets 6 (ecosystem-based approach and over-fishing), 8 (pollution), 9 (alien species) and 10 (coral reefs). The Project is also contributing to CBD through the patrols and protection of marine turtle nesting sites. At the same time, it is working towards community knowledge of marine turtle, manatee and Utila iguana conservation. This follows the Strategic Objective C: Improve the situation of biological diversity, safeguarding ecosystems, species and genetic diversity. It also contributes to completion of Aichi Target 12, regarding preventing the extinction of threatened species and improving their status.

The Bay Islands Foundation is contributing to at least three objectives of CBD, in particular Article 8. sections (d) and (f) through the development and implementation of plans or other management strategies. The breeding program of Utila iguana, an endemic species on the IUCN red list, as well as establishment of mangrove parcels to collect data related to habitat health and ecological integrity contribute to fulfilling these articles.

Scientific information (Target 19) is being addressed through the compilation of information and studies, led by CEM and described in the results under Output 3. Traditional knowledge (Target 18) also underpins the project, and is in line with national policy. Community engagement through endogenous community conservation and development was initiated during Yr1 of the project and led through the stakeholder forum and MICMC.

At a capacity building level, the project contributes to CBD objective three (fair and equitable sharing of the benefits arising out of the utilization of genetic resources) in two important ways: 1) strengthening APROCUS to manage the fisheries resource; and 2) strengthening formation of MICMC that engages villages and municipalities throughout the region to integrate the conservation work in the triad of the project's protected areas.

The Mesoamerican Reef is a GEF priority including GEF goals of strengthening stakeholder participation in the region's MPAs and developing sustainable financing mechanisms. The Darwin initiative held several meetings with GEF leadership during Yr1 but no funding has been secured to date. Since GEF intends to collaborate with the Darwin project, we expect to leverage both co-project financing and additional investment in seascape management measures, thereby intensifying the impact on achievement of Aichi targets.

Due to high poverty levels and vulnerability to climate change, the Honduran Government accords high priority to Targets 14 (equitable distribution of benefits) and 15 (ecosystem resilience and climate adaptation), both addressed by project through community involvement, increased inclusion of vulnerable groups and women. Equitable distribution of benefits was initiated through involvement of communities, APROCUS strengthening and increasing the well-being of fishers. The latter had an initial boost in Yr1 through an increase in fish prices sold by the cooperative, although in Yr2 prices remained the same. Despite fish prices remaining flat, there was an increase in total sales of 25%.

FCC interacted with the Honduran convention focal point known as Dirección de Biodiversidad (DIBIO) within the Environment Ministry. Through DIBIO, they coordinate a Marine Turtles Regional Technical Committee (COTTOM). The committee is working on the Marine Turtle Research Conservation and Protocol and implementation of the Second School for Marine Turtle Conservation. FUCSA and FCC are also working with DIBIO through the restructuring of a National Wetland Committee that has direct bearing on the wetland habitat in the project.

6. Project support to poverty alleviation

The following achievements in Yr2 are 1) continued alliance of the five project partners, which has made it possible to combine technical, financial and human resources; 2) continued improvement of the institutional capacity of APROCUS, particularly through ongoing management of the new fish landing centres; 3) incorporation of fisher groups outside the MPAs; 4) continued strengthening of MICMC and its membership that helped strengthen community participation in the forum; and 5) continued community-based marketing agreements.

The communities that integrate the marine landscape depend to a great extent on fishing and ecotourism resources. As part of the project, FCC is working with a group of young adults developing them as conservation-based tourist guides in the Conservation Guides Program. The program offers participants an alternative to livelihoods available in local communities and a chance to escape current poverty. Other initiatives are being carried out such as the management of fish landing centres that directly contribute to economic benefits linked to poverty alleviation. During Yr1 and Yr2, partners collected catch data to track the relative well-being of fishers. Over time the information will be analysed for economic well-being metrics and ultimately determine whether changes in fishing management practices are contributing to poverty alleviation.

The project is strengthening the organisational and business capacities of fishermen, as well as a more participatory governance that gives fishers access, use and control of their natural resources. At the

business level, the net profit for fishers increased by improving capture and quality control processes. We believe the commercial fish population and fishing zone studies that are currently being finalised will contribute to reducing poverty, leading to more sustainable fish stock management and income generation.

Indirect benefits are also expected, through income generation for families through economic alternatives, such as handicrafts related to sea turtle conservation. Improved tourism by betterment of the resource through restoration, management and species conservation is another indirect benefit for poverty alleviation. Reducing the vulnerability of wetlands and mangroves will help local communities be more resilient to climate change and, it is hoped, make them more economically resilient. This will have to be tested in the long-term, however. In general, increased participation and education of women leads to poverty alleviation. Building institutional and organisational capacity will also indirectly lead to poverty alleviation. Finally involving the identified vulnerable groups, typically those that are most subjected to extreme poverty, will have an indirect impact on poverty alleviation.

7. Project support to gender equality issues

Within the framework of the project, gender equity is widely promoted and women are already taking a more active role in project activities. In fact, APROCUS is led by a woman, and now 4 of 7 board members are women. APROCUS is also working with economic participation through the spouses of fishers, particularly marketing and selling their products. The community roundtable MICMC has been encouraging women's participation and the forum will continue with the same approach. MPA co-managers are also promoting the same within their MPA and during the process of identification of sustainable livelihoods, gender equity will be an important consideration.

8. Monitoring and evaluation

FFI steers the project to keep it on the track as set out in the log frame, while accommodating the fact that each partner has their own way of operating. FFI have been ensuring proper fund administration and accounting as well as providing technical support to partners. Implementation is guided by the proposal approved by The Darwin Initiative and by individual grant agreements signed with partners.

A Project Steering Group (PSG), comprising six partners was established and has been overseeing and guiding the project implementation. It has been meeting quarterly to review progress and plans, including updates on monitoring results and assumptions. General communications have taken place by face-to-face meetings, field visits, phone, and apps such as Skype. Basecamp online software is being used to share information and foster interaction between partners.

Monitoring protocols for each project indicator and reporting responsibilities have been agreed upon by partners. In addition, indicator baselines have been established. In general terms, information for reporting on the indicators have been gathered, although in some cases it seems that they have not been reported properly due to different interpretation of the procedures. FFI will closely monitor data collection in the coming semester to ensure all partners have incorporated the protocols and data collection and reporting is done as envisaged.

FFI and partners understand the usefulness of tracking indicators properly, recognising that it can be a complex process, that protocols may need revision, and that gathering high quality data takes time. Improving monitoring across multiple partners in the seascape is part of capacity building and added value to the project.

A summary of monitoring results is found in Table 1 below. Many of these are reported on in the logframe and the body of the report but it is worth highlighting that the total acreage of mangrove restoration is increased to 11, that there is an increase beyond the objective of fishers registered, a general reduction of threats and a possible increase in sales. This could indicate a potential increase in income and a more secure livelihood amongst fishers. Water quality monitoring is still too nascent to make any conclusions to date. The values for CPUE and average size for yellowtail for Yr1 and Yr2 are still being calculated by CEM but should be ready for June 2018.

Table 1: Summary indicator results. Dashed line indicates no measurement made.

#	TYPE	INDICATOR	UNIT	OBJECTIVE	BASELINE	YR1	YR2 I	YR2 II	YR2 III	YR2
0.1	Mangrove	Restoration	ha	20	0	3	0	0	0	8.406
0.1	Mangrove	Protection	ha	200	2000	2,000	4,000	4,000	4,000	5,000
0.1	Mangrove	Protection	ha	200	1546	1,546	1,546	1,546	1,546	1,546
0.2	Water	Turbidity	meters	1.0-1.6	1.2	-	2	1.39	1.07	4.46
0.2	Water	Temperature	C	26-30	28.53	-	29	29.63	26.46	29.73
0.2	Water	pH	pH scale	6-8	7.02	-	7	6.8	0	7.19
0.2	Water	Conductivity/Salinity	µS	NA	Not measured	-	-	-	-	5,149.39
0.3	Fisheries	Harmful fishing practices	# illicit practices	20	30	30	13	17	4	4
0.3	Fisheries	Harmful fishing practices	%	20	30	11	17	15	10	5
0.4	Yellowtail	Average size	cm	reverse	30	TBD				TBD
1.4	Yellowtail	CPUE	lbs/5 hr trip	increase	32.7	TBD				TBD
0.5	Fisheries	Trawling	# of incidents	<5/yr	5	3		2		2
0.6	Iguana	Iguana threats	%	reduce 30%	10% consume iguanas	-				2
0.6	Turtle	Marine turtle threats	# nests poached/season	<5 nests/season	10	18		18		18
0.6	Manatee	Manatee threats	# incidents	<1/yr	03-Jan	2				1
0.7a	Livelihoods	Income from marine resources	%	15	4 lempiras	75				75
0.7b i	Livelihoods	Inclusion & empowerment	fishers	200	70	130				144
0.7b i	Livelihoods	Inclusion & empowerment	fishers	200	81 fishers	81				90
0.7b i	Livelihoods	Inclusion & empowerment	fishers	200	82 fishers	88				88
0.7b ii	Livelihoods	Villages agree w/ PA decisions	%	70	0					
0.7c i	Livelihoods	Actions that affect livelihoods	actions	2	0	0				5
0.7c ii	Livelihoods	Agreements over conflicts	agreements	3	0	0				1
0.7d	Livelihoods	Food security	householdes	80	0	0				34
0.7e	Livelihoods	Improvements marine resources	%	60	0					

9. Lessons learnt

The following are lessons learnt during Yr2 of the project:

- **Communications, trust and leadership between project partners greatly improved but still needs improvement.** Although there are excellent results from the first year, there needs to be additional follow-up and clear project communications to continue. In some respects, the partners passed through a 'storming' phase during Yr2 and have entered into deeper collaborative relationships in the past few months with improved communications and cooperation.
- **Increased collaboration is beginning for fundraising.** Although there is still a bit of competition evident, especially when new funding sources become available, partners are realising that collaboration for funding generally increases the total possible funding as a whole.
- **Evaluation of results amongst partners is important for capacity building.** This continues to be an important lesson, if not yet a habit, amongst partners.
- **Keeping government agencies up-to-speed continues to be critical.** Through project implementation activities, partners have been in contact with government agencies, updating them on the progress and challenges on a case-by-case basis. A more formal approach will be implemented in Yr2 now that the stakeholder forum (Activity 4.1) has been established.
- **Seascape wide monitoring results take time.** This is evidenced, for instance, by the lack of conclusions to be made on water quality monitoring, but a strong baseline is established and patterns should begin to emerge.
- **Landscape scale conservation is critical both ecologically and for community livelihoods.** New links are continuously being made between livelihoods and biodiversity conservation. For instance, new links are being made between the negative impacts of marine pollution on the ecosystem and tourism but new approaches from communities are beginning to emerge from the simple (sorting out organic vs. inorganic waste) to more complex (developing novel system wide solutions to reduce plastic such as developing local industry that produces plastic alternatives or a possible bag ban or tax at the municipal level). These new links are creating additional links to new co-operators in the project.

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

A key action following the Yr1 review was to incorporate the Darwin logo on their websites. All partners were asked to do so during the year and most have made additions as asked. In some cases, such as FFI and CEM, there is an organisational policy to not post donor logos on the organisational site. Wherever possible, all partners used the Darwin logo in promotional materials, at workshops and at

festivals. Partners were reminded to include logos where possible, notably on their website or project-specific webpages.

11. Other comments on progress not covered elsewhere

As stated in Yr1, the Project does not have any inherent risks in its design or partners but it does depend on some results related to third parties. For example, timely prosecution of offenders related to marine laws remains central. However, the partners feel that the indicators are still realistic and reachable at this moment.

12. Sustainability and legacy

An interesting development leading to sustainability and legacy is the institutionalisation of the roundtable into the organisational structure of LARECOTURH. As a result, LARECOTURH will provide capacity building and follow-up to the roundtable well beyond the life of the project. Additionally, LARECOTURH has 3 members of its board of directors that are community members living within the geography of the project.

Involvement of local communities has been particularly active through engaging local fishers and integrating the fish marketing component with their wives. In February, LARECOTURH led a workshop with fishers' wives to help improve financial sustainability. Participants suggested that further understanding of fish supply chains, to find areas where value could be created and profits increased in order to potentially stabilise incomes over time.

All of the co-managers are working with community leaders to ensure the long-term sustainability of the project. FUCSA recently signed a management agreement with APROCUS and ICF, FCC continues to work on the strengthening of the regional Community Fisheries Commission, and FIB is increasingly working with CEM and Utila fishers on access rights as well as women's groups to help reduce threats to the Utila iguana.

In terms of the project's open access plan and connected to implementation of activity 3.11, CREDIA has a remit to develop a national information system for monitoring of coastal and marine ecosystems, under funding from GEF. CEM has been meeting with CREDIA's director to learn about the system and developed a proposal to incorporate the Darwin seascape information management protocol at the national level, with the protocol ready for review/ratification by project partners. However progress of CREDIA's initiative appears to have stalled, although CEM is now part of the Technical Advisory Committee specifically in charge of knowledge management.

The exit strategy is still valid and we are not currently planning to make changes to the original proposed project

13. Darwin identity

The Darwin Initiative project has a clear identity. Partners, community members and local authorities identified the project as a distinct priority in the seascape. When other sources of funding/support have contributed to a specific activity, prominent recognition is given to the Darwin Initiative. The Darwin Initiative logo is used by all local partners in project related publications, documentation and workshops. In addition, at every meeting, workshop and community activity, there is mention of the UK government support through The Darwin Initiative and, time permitting, a broader explanation about the Initiative. At each workshop, an attendance registry with the Darwin logo is signed by the participants.

Outside of the project area the Darwin Initiative is less known, mainly by some NGOs and environmentalists, and specific staff members within government institutions with whom project partners have worked. To further support the publicity about the Initiative, project partners mention the Darwin Initiative when attending events and meetings outside the seascape.

Partners use social media, largely Facebook and Twitter, to publicise the work they do. In some of the posts they mention activities supported by Darwin. This is done in an *ad hoc* manner but the necessity of being more strategic about the content and frequency of these posts has been discussed internally. Various partners are in the process of updating their webpages and links to the Darwin Initiative will be

placed in appropriate locations when promoting the project. For Yr2, all partners will increase their social presence and improve the dissemination of the Initiative through those channels.

We asked all partners multiple times throughout Yr2 to place the Darwin logo on their websites in association with the project and its activities.

15. Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2017-18

Project summary	Measurable Indicators	Progress and Achievements April 2017 - March 2018	Actions required/planned for next period
Impact: *The Honduran section of Mesoamerican Reef and associated marine habitat and species are protected and sustainably managed, while participating coastal communities enjoy improved livelihoods and food security, and reduced vulnerability.*		Significant progress has been made in collaboration across the seascape by project partners including registration of fishers locally to improve access rights, restoration of mangrove habitats and increased institutional capacity with communities and partners. Initial steps have been made to reduce vulnerability and results indicate excellent progress on livelihoods.	[redacted]
Outcome: Integrated, collaborative management established across an 800,000-hectare seascape, encompassing 3 MPA's, thereby protecting critical habitats and species, making fisheries more sustainable, and improving livelihoods and food security of 1000 people.	0.1 20 ha of mangrove restored and 200 ha with improved protection by EOP. 0.2 In CSWR estuary at least one major source of sediment and pollutants has modified practices, reducing nearshore turbidity by EOP. 0.3 At CSWR estuary and Laguna de Cacao (CCMNM) harmful fishing practices have been reduced by 20% by EOP. 0.4 By EOP measures are implemented to reverse decline of CPUE and mean size of yellowtail	0.1 The total ha of mangrove restored to date is just over 11 ha. A land tenure and restoration meeting with project partners and the local communities in the town of Cacao removed a barrier to future restoration efforts. 0.2 Water quality monitoring took place regularly throughout the year (Table 1). Further turbidity could be reduced by taking advantage of a palm producer mitigation scheme requiring a 50 m buffer in riparian areas. Funding has helped remove African palm from ~10 ha to date. FUCSA is also installing sedimentation traps in all tributaries to the reserve. 0.3 The number of harmful fishing practices increased. This is due to a number a reasons, but principally to increased number and efficiency of	0.1 Continue restoring other areas identified to reach and/or surpass the project outcome, and monitor growth/survival of reforested areas. Continue to discuss concrete actions to protect/restore mangrove ecosystem, including utilising the baseline to develop concrete management actions, with local stakeholders. 0.2 Implement monitoring methodology during Yr2 to determine sources of pollution and sedimentation and then propose remediation actions to reduce sediments and pollutants. 0.3 During Yr2 FUCSA will continue providing assistance to fish landing centres to continue monitoring capture. 0.4 Improvement and expansion of

	snapper (*Ocyurus chrysurus*), with systems to monitor that trend, and plans to extend the same approach to other seascape fisheries. 0.5 By EOP, bottom trawling within seascape reduced to <5 incidents per year, of which at least 50% are followed up by authorities. 0.6 By EOP, threats to hawksbill turtle, Utila iguana and manatee are reduced through increased public commitment and participation in protection and monitoring 0.7 Livelihoods 0.7a *Fishing or ecotourism-related is*: By EOP, at least 100 households have increased their income from marine resources by at least 15% relative to SOP baseline by increasing the value of fisheries products and/or increasing income from provision of goods and services to the tourism industry.	patrols and increased trust between the co-managers and communities, leading to more increased reporting and detection of illegal activities. 0.4 Communities are providing catch information through OurFish app. CEM is currently calculating average size and CPUE and numbers should be ready June 2018. 0.5 CEM finalised the bottom trawler study and shared with stakeholders. Generally, they have observed trawling incidents are rare in the region and are <3 incidents/year. 0.6 FUCSA increased SMART patrols and monitoring related to manatee threats. Illegal gear that threatens manatee population seizures increased helping to reduce threats and the total number of direct manatee incidences decreased. The number of poached nests at Cayos increased but this is due to increased monitoring and total number of nests observed. FIB produced awareness materials for mangrove and Utila iguana conservation and started reaching out to women's groups on the island to raise awareness about iguana conservation. According to their survey the number of people dependent on natural resources increased from 20 to 23% but those who eat iguana greatly increased from 10% at baseline to 2%	data collection using OurFish. Production of automated reports available for end users. Carry out additional registration of fishers in CWSR and other MPAs. 0.5 Study presented to partners and used to determine subsequent management and policy actions. 0.6 To continue advocating for a trawling ban or stronger trawler regulations in the MPA. To increase community participation in monitoring activities in all MPAs and use of the stakeholder forum to increase support towards reduction of threats/conversation of flagship species. 0.7a Diversify tourist services to increase the number of economic beneficiaries.

	0.7b Inclusion and empowerment: (i) at least 80 fishers by project mid-point and 200 fishers by EOP have officially recognised fisheries access rights (ii) by EOP, in 70% of seascape villages the primary stakeholders report substantially stronger influence on MPA management decisions than before the project. *0.7c Cooperation with other stakeholders:* (i) By EOP the seascape stakeholder forum has achieved consensus on actions to address at least 2 major fisheries issues (1 by project mid-point) and at least 1 external threat to the seascape which impact the livelihoods of marginalized fishing communities (ii) By EOP there has been a 50% reduction in incidences of conflict over fisheries and marine resources. 0.7d *Food security*: By EOP, at least 80 low income households able to meet household food requirements during periods of unfavourable weather without resorting to unsustainable harvesting of juvenile marine organisms. 0.7e Marine resource status: By EOP, at least 60% of women and 60% of men report that the project has	currently. It appears that the increase in natural resource consumption is due to increased survey respondents consuming fish. Partners are currently determining the why behind this increase and how it may affect natural resources. FIB has reached out to 197 students giving talks on the value of iguana conservation that includes mangrove restoration with an overall objective to reduce threats. 0.7a Although fish prices remained flat during Yr2, there was an increase of fish sales in the project of 25% during Yr2. 0.7b (i) A total of 388 (300 Cayos Cochinos and 88 Utila) fishers have officially recognised access rights from. 90 fishers have DIGEPESCA licenses in Cuero and plans are to create a local license in CSWR in Yr3. 0.7c (ii) 1 co-management agreement signed between APROCUS, ICF and FUCSA. 0.7d To be measured and reported in Yr3. 0.7e To be measured and reported in Yr3.	0.7b Identity card for all MPA residents. 0.7c (ii) Continue to manage the expansion of maritime boundaries and strengthen monitoring control through training and provision of basic logistics.

	contributed to improvements in the health and sustainability of the marine resources on which they depend.		
Output 1. Across the seascape, management of key fisheries, habitats and species are strengthened through coordinated planning and action.	1.1 Spatial management priorities for seascape agreed amongst stakeholders and co-managers by Sept 2018 and 3 or more measures benefitting fisheries under implementation by EOP.	1.1 Discussions are happening between communities and partners to develop spatial management priorities. CEM, fishers and FIB produced a no-fishing zone map for Utila (attached to report).	
	1.2 Habitat conservation measures agreed and adopted by seascape stakeholders, co-managers and authorities: (i) mangrove protection/ restoration, (ii) elimination of bottom trawling, (iii) sediment and pollutant reduction by commercial agriculture at estuaries, (iv) management measures for fisheries in estuaries and coastal lagoons, (v) other measures tbd with stakeholders. At least 1 of these by December 2016, 3 by December 2017, 4 by EOP.	1.2 At the seascape level, drivers of mangrove loss identified and monitoring protocol developed. Monitoring plots established. 11 ha of mangrove restored and additional sites identified for restoration in Yr3. The first revision of the Turtle Harbor management plan for Utila includes management components for mangrove and iguana conservation. FUCSA initiated development of management plan for estuaries and coastal lagoons and drafted a fisheries regulatory plan that includes marine, lagoon and estuarial habitats.	
	1.3 Seascape-wide yellowtail snapper (*Ocyurus chrysurus*) fishery management and monitoring plan agreed and adopted by December 2017 and in implementation by March 2018.	1.3 Synthesis report on yellowtail snapper produced and fisheries and monitoring plan completed and will be socialized with communities and partners early in Yr3. Genetic study analysis will be completed in 2018.	
	1.4 Numbers of people and institutions engaged actively in conservation and monitoring of manatee, hawksbill turtle and Utila iguana increased by 30% by	1.4 Utila Iguana: 44% increase (80 current, 45 pre-project); Hawksbill Turtle: 80% increase (144 current, 80 pre-project); Antillean Manatee: 260% (18 current, 5 pre-project). Total % increase = 86%	

	March 2017 and 60% by EOP.	
Activity		Progress on Activities
Activity 1.1 Discuss the findings of the spatial management assessment (see output 3) amongst the MPA co-managers and with the stakeholder forum, and facilitate agreement on consequent management decisions and actions in individual MPAs, the unprotected area or seascape-wide. Support initial implementation of priority new measures.		Progress has been made during internal discussions amongst partners on how to incorporate the spatial management assessment into future management and conservation science actions. During Yr3 the discussions will broaden with partners, communities and the forum.
Activity 1.2 Support implementation of priority mangrove conservation activities in the seascape, including removal of introduced African Oil Palm, restoration by local groups (predominantly women), and demarcation of boundaries to curb cutting and livestock incursions.		FIB continues to use the CARICOMP methodology developed by CEM to monitor mangrove whilst FUCSA is using an integrated methodology that includes components of CARICOMP, Blue Carbon Initiative and Mesoamerican Reef System methodologies. Permanent mangrove monitoring plots have been established in both Utila and CSWR. At the national level, CEM is coordinating with the National Committee for Wetlands who plan to develop a national mangrove monitoring protocol subsuming the Darwin project protocol. Permanent field plots will be established in Yr3. 11 ha of mangrove planted at multiple sites with new sites identified for Yr3. Eradication of oil palm started during Yr2 and will continue during Yr3.
Activity 1.3 Present the assessment of bottom trawling impacts (see output 3) to the MPA co-managers and the stakeholder forum for discussion and decisions on a proposal to government on policy and actions. Support preparation and presentation of this proposal by stakeholders and co-managers to government.		The assessment of bottom trawling in the seascape has been shared with MPA managers and validated in Yr2. It will be presented to the upcoming stakeholder forum in the first quarter of Yr3.
Activity 1.4 Present to the MPA co-managers, the stakeholder forum, municipal authorities and agricultural stakeholders the assessment of seascape estuaries and coastal lagoons, including their role in sustaining marine and brackish water fish populations, their connectivity with sea grass beds and reefs, their pollution (including oil palm waste) and sediment problems, and their use by women and men for subsistence fisheries.		Completed during Yr2 and ongoing during Yr3.
Activity 1.5 Facilitate the development of affordable action plans for estuaries/lagoons, which would include measures by plantations to reduce pollution and sediment and monitor changes, and promote its implementation in priority sites (CSWR estuary, Cacao lagoon).		FUCSA initiated this work during Yr2 and will finalise during Yr3.

Activity 1.6 Work with local users, principally subsistence fishers but also commercial fishers and tourism users, to understand the multi-species fisheries in estuaries and lagoons and their inter-dependence with marine fish populations. Develop community action plans to improve fisheries and make them more sustainable fisheries, with emphasis on subsistence fisheries by vulnerable groups and use of inshore areas in periods when weather prevents ocean fishing. Contribute technical support to implementation and participatory monitoring.		Initiated with women fishers' workshop and all fishers meetings during Yr2 and continuing in future roundtable, forum and community meetings. LARECOTURH will be ramping up the tourist aspect of this activity during Yr3. Further integration of Activity 1.6 will take place with input to and increasing understanding of the national fisheries law. A no fish zones map was developed for Utila. CEM is planning to interview Kanan Kay tour participants to document long-term learning and implementation of any results from the visit to Mexico.
Activity 1.7 Present the findings of the yellowtail snapper studies (see output 3) to the MPA co-managers and the stakeholder forum, to discuss and decide actions to improve the management and sustainable use of the resource, as well as potential implications for other fisheries in the seascape. Contribute technical support to implementation and participatory monitoring.		Secondary information (ecology, artisanal and industrial fisheries, market & community dependencies) about yellowtail snapper analysed and a synthesis report produced. During early Yr3 the document will be presented to the forum to discuss and then take decisions to improve management.
Activity 1.8 Enable NGO lead agency for each flagship species to present species status and action plans to stakeholder forum, where actions to enhance custodianship and stimulate participation by seascape users will be agreed. Provide small-scale support to actions by stakeholders to reduce threats (by-catch, collisions, killing for consumption, habitat degradation).		Informative banners in Spanish and English were created to increase awareness for mangrove and Utila Iguana conservation. FUCSA is creating more banners to place in the newly renovated CSWR visitor's centre. They have been used in community meetings and with youth environmental education activities. Gararu festival included environmental education. Manatee monitoring methodology to increase community participation updated. In Yr2 monitoring plots for aquatic vegetation were established and presentation of updated methodology to the forum was presented. SMART patrols for all three species initiated during Yr2. At CSWR, for example, guards completed 58 routine patrols with 923 km in total distance covered. CEM put a Darwin summary on their website and is including the logo in all of the reports and posters it is producing. CEM is helping with posters or banners for Utila including the developed no fish zones and producing posters/maps for the fishers access rights meetings. FUCSA is producing banners for the 4 municipalities. They will also be placed on vehicles and on the website that is currently under construction.
Activity 1.9 Collaborate on the development of funding proposals for further implementation and expansion of the seascape management activities developed under this project.		Multiple funding proposals were submitted in Yr2 based on prioritised project/programme list developed by partners and through interactions within the stakeholder's forum. This resulted in nearly £1,000,000 in funds secured by project partners in support of project activities.
Output 2. Across the seascape, there is increased compliance with regulations and enforcement capacity is enhanced.	2.1 By Dec 2018 30 enforcement personnel have improved knowledge and skills and are sharing relevant information between MPAs.	2.1 Training courses implemented with the NAVY personnel: 2 Utila, 12 Cayos Cochinos and 3 in CSWR.

	2.2 By Sept 2018 >50% of fishing sector stakeholders consider that the fisheries regulations are reasonable and should be complied with. 2.3 By December 2018 reduction of 50% in level of illegal activities detected relative to intensity of surveillance.	2.2 To be reported in Yr3. 2.3 Co-managers are collecting illegal activity information and results actually show an increase in the total number of illegal activities compared to baseline. This is due to a number of reasons, but is principally due to an increased number and efficiency of patrols and increased trust between the co-managers and communities, leading to an increase in reporting and detection of illegal activities.
Activity 2.1 Work with the Navy to incorporate a short module on protection of marine resources in their training programmes, and design and deliver a pilot module		17 Navy workshops delivered by partners to date. Partners have also advanced the training module and the Navy has incorporated components at their academy.
Activity 2.2 Establish practice of sharing information between co-managers about fisheries and tourism users of the seascape, including any irregularities such as illegal catches, with a view to identifying risks, preventing infractions, and facilitating detection and prosecution.		For sharing information about fisheries: 1) The Fishers Registry System managed by CEM was upgraded to help produce monthly reports to be distributed to local stakeholders; 2) Fisheries information was collected using OurFish and a portal to enable information collection and sharing has been developed. In Yr2 a standard reports were distributed on a regular basis; and 3) Implementation of the SMART tool is being managed by FCC, FIB and FUCSA. Yr3 results will be presented during upcoming reports. Sharing information about tourism is under discussion but discussions and analysis is already underway to tie quantified tourist information to other ecosystem services such as carbon storage, water quality and marine ecosystem resilience.
Activity 2.3 Organise the process by which local stakeholders participate in the piloting, evaluation and roll-out of the artisanal vessel tracking system (by Government of Honduras, CEM and Smithsonian), so that its use enjoys broad support and cooperation, especially by fishing cooperatives committed to responsible fishing practices. (Stakeholder support depends on perceptions of the fairness and technical justification for regulations, also addressed by this project).		Discussions are still underway to select the best system. CEM will continue participating in discussions to determine the best new system and once selected, will participate in the pilot roll-out and evaluation. See VMS description in output 3.
Activity 2.4. Disseminate widely amongst stakeholders and authorities information about access rights, responsibilities and regulations within the seascape, especially any new or modified regulations that are prepared through this project. In each case, explain reasons, benefits and stakeholder input to formulating the		FCC had to delay two access rights workshops until 2018. Access rights were discussed initially at the fishers meeting with approximately 85 participants in February. These discussions will continue at the 2nd encounter on Utila in April. This is expected to happen during 2018. CEM and the co-managers developed a

regulations.		process to take agreements and finalise them across the seascape and will implement it, integrated with the forum and roundtable during Yr3.
Activity 2.5. Monitor the effectiveness of control and response to illegal activities and make the results publicly available.		Implementation of SMART (Spatial Monitoring and Reporting Tool) tool with support of Wildlife Conservation Society Belize. The tool is being used at all three MPAs following a SMART training course in the autumn of 2017.
Output 3. Evidence base for marine conservation and sustainable fisheries management is strengthened, through research and seascape-wide sharing of scientific and traditional knowledge, and is informing seascape management.	3.1 By June 2017 at least 300 stakeholders, across all seascape communities, plus other interested parties, have received new information about ecological connectivity and ecosystem values, relevant to them. 3.2 By March 2018 synthesis of existing and new ecological information available to inform spatial management measures and fisheries management (snapper and estuarine fisheries) referred to in Output 1 above. 3.3 By Sept 2017 a report on bottom trawling impacts and the reasons for eliminating it from the seascape is produced, in collaboration with co-managers and stakeholders, and presented by them to relevant authorities. 3.4 Two socio-economic, cultural and market studies completed to inform outputs 2 (management) and 5 livelihoods), by Sept 2017 and March 2018. 3.5 Findings of seascape-wide	3.1 To date, CEM directly transmitted information on ecological connectivity to several groups such as the Interdisciplinary Technical Team for WRCS, which consists of 24 persons from 11 organisations; constantly provided general information on the topic of ecological connectivity to fisherman groups from WRCS and Utila Cays for an overall amount of 60 persons in relation to the socialisation for the establishment of no-take zones; via meetings with the fisherman forum which took place last February 26 with a total attendance of more than 30 fisherman (minutes from the meeting will be sent by LARECOTURH). Local authorities from the seascape have been provided with data on work carried out on the topic of ecology, including all 22 organisations composing the Bay Islands National Marine Park's Administrative Group; Municipal Association of the Municipalities of the Center of Atlántida Department (MAMUCA) which is formed by 5 municipalities has been informed on the topic; in addition, a local government network for the northern coast of Honduras is currently being formed, consisting of more than 25 municipalities - the network is being provided with information on the topic of connectivity through conserving important ecological areas. 3.2 A clean-up of the information synthesis is currently being carried out, with a final summary report anticipated by the end of May 2018. Analysis will focus directly on the findings of available information at the local, regional and transboundary level, and how it relates to the evaluation of ecological connectivity. The development of a platform to make the library of information (and associated data when available) easily accessible to stakeholders is currently being planned for deployment during Yr3 (see also 3.6 and 3.7). 3.3 Compilation document on a summary of research conducted on the status of industrial fisheries (including the available spatial information on vessel tracking of the industrial trawler fleet by-catch, rules and regulations, legislation) for the project area was agreed after extensive partner review. This document will be presented to the stakeholder forum at the end of May to consider how best to

	monitoring, incorporating individual MPA monitoring results, is discussed by the seascape stakeholder forum with co-managers at least three times in the course of the project, by Sept 2017 and Sept 2018 and at EOP. 3.6 By Sept 2018 co-managers and stakeholder forum agree on a protocol for maintaining and sharing information, plus channels for access by outside parties under principles of open access. 3.7 Simple, sustainable post-project monitoring system adopted by co-managers and stakeholder forum, by EOP.	present to relevant authorities. 3.4 LARECOTURH is developing a tourist and women's involvement in marketing fisheries reports. These should be complete during the first half of Yr3. 3.5 Completed for Yr2, with ongoing discussions and presentation of new data to the forum by co-managers during upcoming meetings (expected to occur from May or June onwards). 3.6 Information sharing system has already been designed and TOR drafted but has yet to be discussed by project partners. CREDIA was working on a monitoring mechanism under GEF funding, but no further progress of this initiative has been made. Nevertheless, CEM is now part of the Technical Advisory Committee specifically in charge of knowledge management. What is currently being done at CREDIA is serving as a file repository, not currently aligned with the project's goals, but could provide a window of opportunity for the development of extraction of document properties web services, data analysis, advanced search and heuristic systematic model of information processing (machine learning) modules based on documents' properties. 3.7 A draft post-project monitoring platform will be presented to partners by the end of April 2018.
Activity 3.1 Drawing on the work already done (see M&E section below), review existing data on ecological connectivity between key components of the seascape ecosystem: mangroves, estuaries and coastal lagoons, sea grass beds and coral reefs. This will focus on key habitat for different life cycle stages of species important for commercial and subsistence fisheries (marine and brackish water), as well as the three flagship species. It will also cover data on fisheries.		With the support of the project partners and through an online bibliographic search, more than 260 publications and reports were collected and reviewed related to seascape ecological connectivity. This includes socioeconomic information of the communities within the seascape, MPA management, and effectiveness evaluation of current MPA network in the country and region. Each of the documents were reviewed for sub-products that could be drawn on in future for parameters relevant to connectivity for the Darwin seascape. To date, more than 1,320 sub-products with their properties distributed throughout 10 different fields, amounting to a total of nearly 13,200 pages identified. The results of the knowledge gap review are being worked up currently for delivery in May, with discussions on the development of a suitable platform to share the information and provide an ever-growing resource for partners and stakeholders underway—either bespoke web development or implementation of Geonode.

Activity 3.2 Conduct meetings with fishers and other coastal community members throughout the seascape, to compile complementary traditional knowledge of the same issues.	This will be carried out in Yr3, CEM planned to support LARECOTURH in this activity but no initiatives have been carried out to date. CEM is currently working on adapting a simple and concise protocol and form based on a participatory mapping methodology to collect information on traditional knowledge of local fisheries (history and dynamics). Its implementation is expected to begin by May 2018.
Activity 3.3 Together with co-managers and stakeholders identify and prioritise gaps in the above information, which include detailed habitat mapping, updated status of coastal lagoons and estuaries, mangrove and sea grass (using the modified CARICOMP method), effects of pollution, larval movements and data on yellowtail snapper and other fisheries for Cuero y Salado and Utila.	As mentioned in 3.2, information is under analysis and once completed, activities will be prioritised during April 2018.
Activity 3.4 Undertake research critical for the management purposes summarised under Output 1, i.e. estuary and lagoon management, maintaining critical habitat and connectivity, sustaining subsistence fisheries, conserving threatened species.	Methodology to carry out a study of connectivity for parrotfish and yellowtail snapper was developed. Samples of both species were collected in CSWR, Utila and CCMNM and were sent to the Smithsonian Institution for genetic analysis. The results will be ready during 2018. Marine biological data gathered in Utila to support the establishment of no-take and recovery zones using AGRRA and CARICOMP methodologies. Final report and next steps will be discussed and agreed upon with local fishers. Secondary information on the various marine habitats in the seascape have been gathered and analysed. This information has been used to analyse satellite images. Field work utilising 100 validation points has been carried out to calibrate and georeference various types of habitats. Information gathered plus validation points have been sent to the Smithsonian Institution to produce habitat maps for the Honduran North Coast. As reported in 1.2, drivers of mangrove loss for Utila and CSWR have been identified and a strategy to tackle them is under development. Basic protocol for mangrove monitoring has been developed and monitoring plots established.
Activity 3.5 Study the zoning schemes of the three MPA and other spatial management measures applied in the seascape, and assess how well they collectively serve the needs of the seascape, taking into consideration advances in knowledge of habitats, species, connectivity and resource use.	All spatial resources have been received and study will commence in May 2018.
Activity 3.6 Analyse ecological and fishery information for yellowtail snapper across the seascape, including size distributions in different locations and the size-reproductive capacity relationship, and produce recommendations for	As reported in 1.7, a synthesis report on the yellowtail snapper fishery was written. Reports on harvest using the OurFish application were produced for APROCUS members. Initial recommendations for management are within the

improving management of this resource.	yellowtail report, with further genetic studies underway (see 3.4) to address knowledge gaps particularly with respect to the fidelity of yellowtail across the Darwin seascape.
Activity 3.7 Use global information on bottom trawling impacts and local experience of excluding bottom trawling from MPA's to characterise the potential benefits of eliminating that fishing method from the whole seascape.	Using information from DIGEPESCA on tracking of industrial fishing vessels and in collaboration with CEM, the Smithsonian Institution and the University of Queensland, an analysis was carried out to determine trawler movements in order to understand fishing effort and activity locations. Maps produced specifically for the project area did not show a significant threat of trawling in the area, although some incidents of trawling occurred in a community of the CSWR. With the information about industrial trawling, plus the analysis of approximately 100 bibliographic sources, a trawling compilation document for the project area was produced and is expected to be presented next forum meeting in May to agree on presentation to relevant authorities. It is important to note that a new fishing law has been approved by the Government but no prohibitions on fish trawling for the north coast were included in the new legislation.
Activity 3.8 Prepare and disseminate a technical publication about ecological connectivity in the seascape, together with a popular summary version, and present it in community meetings.	The draft of an ESRI story map has been drafted and will be presented to partners in June.
Activity 3.9 Prepare and provide to the MPA co-managers and the stakeholder forum technical reports, incorporating scientific and traditional knowledge, to inform their discussions on the themes listed under Output 1 and others requested by the forum.	Several reports have been prepared and shared, such as fish trawling summary, yellowtail snapper fishery and ecology, Utila no-take zone proposal, benthic habitat map report, NTZ network report, Ourfish reports, fishermen registry reports. Yr3 will see reports on the genetic analysis of the mangrove and yellowtail samples, the synthesis of seascape knowledge review, and review of MPA zonation. The finalised knowledge gap review and information platform will inform research proposals that will be elaborated and prioritised for future efforts towards seascape management.
Activity 3.10 Undertake two socio-economic, cultural and market studies needed to support the sustainable livelihood initiatives to be identified under Output 5.	LARECOTURH is developing a tourist and women's involvement in marketing fisheries reports. These should be complete during the first half of Yr3.
Activity 3.11 Agree between co-managers and seascape stakeholders a protocol for managing seascape information to facilitate open access for all actors, and for interested outside parties. In principle, this will formalise within-seascape practices developed through this project, and in addition use the partners' institutional information systems and regional or thematic portal(s) that are already functioning (e.g. Healthy Reefs). Periodically review and update the	Officially CREDIA has a remit to develop a national information system for monitoring of coastal and marine ecosystems, under funding from GEF. CEM has been meeting with CREDIA's director to learn about the system and developed a proposal to incorporate the Darwin seascape information management protocol at the national level, with the protocol ready for review/ratification by project partners. However progress of CREDIA's initiative appears to have stalled,

protocol		although CEM is now part of the Technical Advisory Committee specifically in charge of knowledge management. Partners wish to support CREDIA but are looking into other viable alternatives.
Activity3.12 Design, in consultation with MPA co-managers and stakeholder, a simple, low-cost seascape-wide participatory monitoring system, which builds on individual MPA systems and focuses on elements of joint interest (e.g. shared fisheries resources, mangroves). This will include CEM-led trials of the Android app OurFish, which is a catch monitoring tool for use by fish buyers and cooperatives. The project will support initial implementation of the participatory monitoring.		OurFish will be used widely with organisations and fishers to collect fisheries monitoring data. Directly related with activity 3.11, in which the platform will allow for automatic notifications, reports emission and sharing, linkage with social media platforms and RSS feed, and regular emission of newsletters are among the strategies looked in order to keep seascape stakeholders informed. For the first year of this plan automatic notifications and sending of reports will be included via the information platform.
Output 4. The principal seascape stakeholders have enhanced social capital, with a forum and networks for cooperation on participatory marine management, fisheries, ecotourism and other priority development issues which they may identify.	4.1 By Dec 2016 the forum is set up and equitably representing the stakeholders who depend directly on the seascape; aim to reach 30% female representation. 4.2 Forum is sharing information by March 2017 and by June 2017 is producing joint resolutions and contributing to development of the management measures described under Output 1. 4.3 By Dec 2017, two action plans adopted by the stakeholder forum in relation to their shared interests in sustainable fisheries and ecotourism, with women's concerns incorporated. 4.4 Three funding proposals developed based on seascape stakeholder agreements, by March 2018. 4.5 MPA access and regulations harmonised across the seascape by	4.1 The stakeholder forum has been established, with the initial participation of 15 communities. Within the forum, a coordination committee was established which currently has 44% female participation. MICMC helped strengthen community participation in the forum, forming in July 2016 and helped prepare communities to participate in the March 2017 forum meeting. 4.2 The forum was established in March 2017. Information sharing will take place through project end. 4.3 Several action plans were developed by the roundtable but not the forum. These included a Roundtable Strategic Plan, a Regional Community Natural Resources Management plan, and a Regional Fishers Action Plan. LARECOTURH is aware that they are behind on implementation of the forum. 4.4 £942,838 in funds secured through multiple proposals during Yr2. 4.5 To be implemented in Yr3.

	Sept 2018, including inter-community agreements on shared fishing grounds. 4.6 By EOP the stakeholders consider that the forum and associated networks and external links bring significant benefits that justify their investment of time and effort (transaction costs).	 4.6 To be measured at the end of Yr3.
Activity 4.1 Building on LARECOTURH's work to mobilise a multi-community group on mangrove conservation, bring together MPA co-managers and marine stakeholders, principally those dependent on artisanal fisheries or small-scale ecotourism ventures, from the user communities of CSWR and CCMNM and the Utila community in BIMNP. Facilitate an event to identify themes of common interest (and in certain cases, tension or conflict) in relation to the marine ecosystem and its uses and values, and their aspirations for improved livelihoods and food security and reduced vulnerability. Agree and implement follow-up steps, including the establishment of a regular, seascape-wide forum, complemented by working groups and processes for dialogue and cooperation between communities on specific themes.		Through the strengthening of MICMC, LARECOTURH helped build community participation so they can actively participate in the project and take active decisions on resource management and conservation throughout the project area. For example, for mangrove conservation they convened and led a community meeting in Cacao to resolve land tenure conflicts that will facilitate future mangrove restoration. Additional management plans developed through seascape wide meetings include a beach protection plan at CSWR and facilitation of restoration by providing additional community benefits. Broader collaboration across stakeholders is also helping to eliminate habitat invasion from African palm and work with the palm industry to eliminate incursions into riparian areas and/or provide mitigation funds for restoration where they destroyed habitat.
Activity 4.2 Support and facilitate the further development and operation of the forum and associated sub-groups and processes, including the production of basic guiding documents, then joint action plans around the themes of marine management (output 1), livelihood opportunities (output 5) and other topics which they mayidentify.		LARECOTURH supported the establishment of the stakeholder forum. The roundtable has taken on some of the original activities envisioned for the forum including decision-making activities undertaken by communities and partners. The forum will continue to meet and make decisions but its principal focus will be for results presentation, actions for follow-up and reinforcing agreements and activities across the seascape.
Activity 4.3 Support processes of feedback between representatives in the forum/working groups and the stakeholder groups to which they pertain. It is not anticipated that the forum will have formal power, nevertheless its legitimacy amongst stakeholders as a space for debate of important issues is crucial.		Activity started in Yr2 and continued until EOP. Discussions have largely taken place between roundtable participants, government agencies, communities and project partners. There have been many more parallel meetings than forum meetings that have made the connections between these work groups. Parallel meetings and coordination, for example, led to the community of Dantillo installing artificial reefs supported by the Environment Ministry and project partners.

Activity 4.4 Expand the prior work of LARECOTURH in connecting community groups of ecotourism service providers and fish suppliers with potential partners in the tourism industry, who already bring clients to the area.	Activity started in Yr2 and continued until EOP. There is currently work underway to analyse and improve marketing with women fishers and/or wives of fishers. In the community of Salado Barra in CSWR LARECOTURH is working to increase capacity with the community tourist committee that includes improved legal framework and health and food safety where tourists are being served food. The communities are working to develop services for tourists such as artisanal crafts, aquatic tours/paths and food. In East End, located in Cayos Cochinos, they are working to legalise the tourist committee, improving management of the community kitchen and bunkhouse for tourist and improving finances. In Rio Coco LARECOTURH is working with leaders to reduce land invasion where tourist cabins are located. A tourist business analysis was completed in 4 communities and will help with developing improved tourist business plans in those communities. Finally, LARECOTURH worked with FIB on a course to develop artisanal goods to market to tourists. Follow-up to the course is taking place during Yr3.
Activity 4.5 Support the development of proposals by groups of seascape stakeholders to obtain financial and technical support for the projects which they prioritise, and enable them to present these proposals to UNDP Small Grants Program and other sources.	Nearly £ in funding secured by project partners.
Activity 4.6 Facilitate discussion within the forum and sub-groups of access rights, which are being introduced in each of the three MPAs, and identify opportunities for improved management, and resolution of actual or potential conflicts (e.g. fishing grounds midway between CSWR and Utila). Use spatial data on resources and their use in the seascape to inform these discussions and develop equitable agreements on access rights. Use this ongoing dialogue to advance progress on the introduction of access rights across the whole seascape, taking care to identify and safeguard the interests of vulnerable groups.	Initiated during the first two meetings of the fishers encounters in CSWR and Utila and will be continued through the end of the project. A recent MICMC strategic planning meeting was held that also discussed access rights amongst artisanal fishers as well as initial discussions and analysis of spatial analysis begun by FFI and CEM.
Activity 4.7 Facilitate discussion within the forum and sub-groups of fisheries regulations in the three MPAs and identify opportunities for harmonisation, in order to improve management and promote responsible fisheries throughout the seascape.	Activity started in Yr2 and continued until EOP. Discussions have largely taken place between roundtable participants, government agencies, communities and project partners.
Activity 4.8 Maintain records of the work of the forum and its sub-groups and incorporate in the process periodic feedback from participants to ensure that the forum is effective in serving the needs of members and is valued by them.	Activity started in Yr2 and continued until EOP. The current focus is to develop agreements on access rights and exchange information between the roundtable and forum as well as partners.

Output 5. 150 community members, who depend directly on the seascape, have enhanced human capital and are empowered to access and sustainably manage fisheries and strengthen economic enterprises.	5.1 By Sept 2018, 150 people, including at least 30% women and individuals from groups identified as vulnerable, are trained to participate in marine governance and management. 5.2 By June 2018, at each MPA processes for participation by local stakeholders in governance are strengthened. 5.3 Registration of local fishers, confirming their access rights, is completed at the three MPAs by March 2018. 5.4 By EOP, sustainable fisheries or ecotourism-related enterprises are developed, or existing enterprises improved, benefitting people in at least six communities, with emphasis on women and vulnerable groups. 5.5 One international learning visit conducted to a community-based sustainable fisheries project (Kanan Kay, Mexico), by March 2017. 5.6 Case study published on the value of artisanal fisheries and the empowerment of coastal communities, by EOP.	5.1 APROCUS capacity has greatly increased through increased involvement of women, greater efficiency in fish capture and marketing their product to the public. Community trained using governance and conflict resolution tools enabling a clearer vision regarding access rights. 1st and 2nd encounters with fishers included 10 women of about 80 participants. 1st women fishers workshop held with follow-up in Yr3. To date 388 fishers have received licenses for access rights that includes training in responsible fishing, marine governance and management. 5.2 Collaboration agreement between APROCUS, FUCSA and ICF signed. Two fishers workshops to discuss governance have taken place with follow-up for each planned. 5.3 Fishers registry is completed for DIGEPESCA licenses. Access rights registration with 300 fishers in Cayos is complete as is Utila with an additional 88 fishers. The process will be discussed in Utila during Yr3. Cuero waiting until MPA expansion is decreed. 5.4 Two fisher's associations strengthened *vis-à-vis* development of project profiles/simple funding proposals. See activity 4.4 results above. 5.5 Completed in May 2017. Interviews with attendees during Yr3 will evaluate the effectiveness of the visit. 5.6 To be implemented in Yr3.
Activity 5.1. Amongst the community members who depend directly on marine resources, identify sub-groups or individuals who are especially vulnerable e.g.		FFI webinar for partners delivered on the livelihoods framework and the concept of vulnerability, as a basis for future identification of priority groups for support. A

because of heavy dependence on subsistence fisheries, marginalisation from decision-making or gender-related factors. Ensure that they are prioritised in the training and empowerment processes.	workshop held with women fishers featured follow-up on the vulnerability theme and a brief workplan was developed. Another workshop on additional vulnerable groups as well as outreach to those groups will take place during Yr3.
Activity 5.2 Complete registration of fishers with access rights to CCMNM and CSWR respectively, and of Utila fishers.	Registration of artisanal fishers in seascape completed by at 2 of 3 MPAs (CSWR to implement in Yr3). CEM provided technical support to design and produce the identification card and to implement registry in the field. Co-managers have access to the registry to support control and surveillance activities and foster interactions with fishers.
Activity 5.3. Continue strengthening the CSWR fishing cooperative, APROCUS, and expanding the role of women in it.	Co-management agreement was signed between FUCSA, APROCUS and ICF. It is the first such agreement of its kind in Honduras. Capacity building with APROCUS continued during Yr2. For example, operational training for the collection centres took place and LARECOTURH worked with APROCUS to restructure the management for said centres. Partners worked with APROCUS to develop 3 operating plans. APROCUS Board of Directors, with more than 40% women leadership, continued during Yr2.
Activity 5.4 Use the successful experience of APROCUS to inspire and guide strengthening of other fishers' organisations associated with Utila and CCMNM, and to strengthen the systems and structures for participatory governance, especially of CCMNM, as envisaged in the 2014-25 management plan. This will strengthen the Community Commission and increase the role of women and vulnerable groups within it.	The fishers workshops initiated in February 2018 in CSWR, April 2018 in Utila and throughout Yr3 will continue to use a fisher-to-fisher model of knowledge transfer and building capacity across the seascape. The women's fisher workshop continued the work with vulnerable groups that will be expanded with other identified vulnerable groups during Yr3. The head of APROCUS, a woman, presented the cooperative's work at the first fishers' governance meeting in February.
Activity 5.5 As part of the above, design and implement a series of training events related to the strengthening of internal organisation, representation, negotiation and conflict management. APROCUS leaders will be involved in sharing their experiences and delivering elements of the training, alongside project partners.	Multiple workshops to strengthen APROCUS leadership took place during Yr2. These included restructuring management of the collection centres to developing multiple strategic and business plans with the cooperative.
Activity 5.6 Provide training on participatory governance for staff of co-managers and relevant authorities, to enable them to manage better and benefit from the participatory systems.	A governance workshop was delivered by FFI to project stakeholders that included practical methods for alternative dispute resolution and facilitating large groups in February. Follow-up governance workshops will be undertaken during Yr3 to continue strengthening partner capacity.
Activity 5.7 Organise a visit to learn from fishers, NGOs and authorities involved in the Kanan Kay Alliance, Mexico. A minimum of 4 people will travel, including 3	Visit and cross-learning activities took place during the year as described above.

fishers, but we aim to expand the group by finding additional funds and contributions in kind. Undertake post-visit events and informal feedback to relay experiences and ideas.	
Activity 5.8 Through strategic planning exercises, plus exchange of ideas between the user groups, assist the groups to identify priority livelihood development aims and develop action plans. Where possible, connect the community groups with relevant buyers, collaborators or sources of technical assistance and funding e.g. UNDP Small Grants Program.	A strategic planning workshop was led by LARECOTURH with roundtable leadership.
Activity 5.9 For a few selected livelihoods initiatives linked to marine resources (e.g. fisheries, blue crab fishery at Utila, provision of goods and services to tourism industry) and involving women or vulnerable groups, provide technical assistance, market research, business planning advice and/or other small-scale inputs. Where appropriate, develop funding proposals involving the local entrepreneurs and one or more project partners to expand these initiatives.	During the women's fisher workshop prioritisation of value chains was identified as a way to accelerate livelihood improvement. Follow-up by partners will take place in Yr3 and will need to be further developed. Four community development projects were initiated by partners in CSWR focused on water, canoes for tourists, riparian restoration and electrification.
Activity 5.10 Prepare and publish a case study and present it in at least one regional event.	To be completed during Yr3.

16. 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
Impact: The Honduran section of Mesoamerican Reef and associated marine habitat and species are protected and sustainably managed, while participating coastal communities enjoy improved livelihoods and food security, and reduced vulnerability.			
Outcome: Integrated, collaborative management established across an 800,000-hectare seascape, encompassing 3 MPA's, thereby protecting critical habitats and species, making fisheries more sustainable, and improving livelihoods and food security of 1000 people	0.1 20 ha of mangrove restored and 200 ha with improved protection by EOP. 0.2 In CSWR estuary at least one major source of sediment and pollutants has modified practices, reducing nearshore turbidity by EOP. 0.3 At CSWR estuary and Laguna de Cacao (CCMNM) harmful fishing practices have been reduced by 20% by EOP. 0.4 By EOP measures are implemented to reverse decline of CPUE and mean size of yellowtail snapper (*Ocyurus chrysurus*), with systems to monitor that trend, and plans to extend the same approach to other seascape fisheries.	0.1 Baseline and historical distribution and status derived respective MPA management plans and publications they refer to, updated with field observations and photo records. Progress verified by co-manager records of protection measures (delimitation, elimination of alien species), photo records and local interviews. 0.2 Records of field visits to observe and sample source of sediment/pollution. Verification by before/after measurements of turbidity/pollution levels, using standard water quality methods, in estuaries and adjacent sea grass. 0.3 Results of community-led fisheries monitoring; focus group discussions and direct observation of fishing practices and of species/size distribution in catches. 0.4 MPA regulations and procedures documented by co-managers and verified by focus groups. Reports analysing catch data collected at landing stations with local fishers and traders using OurFish app where appropriate. Manual for	We assume that government and co-managers continue the policy of strengthening community participation in MPA governance. Current evidence supports this assumption (e.g. decision to review management plans with local stakeholders). We assume that if authorities, co-managers and stakeholders perceive benefits from seascape-wide networking and cooperation, they will continue and consolidate the practice. We will monitor these perceptions during the project. For each of the three flagship species there are known threats, which can be mitigated through increased public engagement. Existing baseline data will be compiled in Q1 to enable quantitative monitoring. We expect to be able to report continuing post-project improvements in species populations, ecosystem status, fish populations and catches, and livelihoods beyond EOP (see section 19 on sustainability). In particular, post-

		ongoing participatory monitoring.	project monitoring should reveal improvements in status of mangroves, estuary and lagoon water quality and fisheries, snapper populations and catches, and status of the Utila iguana Status of turtle and manatee may improve more slowly and, especially in the case of turtles, be more dependent on events outside the project area. We expect coral reefs to benefit from the ecosystem improvements, and that this would be reflected in improvements in the "Healthy Reefs" report card for the Mesoamerican reef against their 2015 baseline.
	0.5 By EOP, bottom trawling within seascape reduced to <5 incidents per year, of which at least 50% are followed up by authorities.	0.5 Local fishers' reports to project partners on observed incidents and action taken.	
	0.6 By EOP, threats to hawksbill turtle, Utila iguana and manatee are reduced through increased public commitment and participation in protection and monitoring.	0.6 For hawksbill, FCC records on nesting beach protection by volunteers and reports on by-catch within the seascape. For iguana, FIB records on population, mangrove habitat (see 0.1 above) and reports of hunting. For manatee, seascape-wide data on population distribution and habitat use, to be held by FUCSA. Baseline status and quantitative targets to be set in working group session in Q1	We assume that the direct improvements obtained by 250 community members - fishers and other vulnerable groups - will benefit their households i.e. about 1000-1250 people in total. This will be tested by the monitoring data and EOP evaluation.
	0.7 Livelihoods		
	0.7a *Fishing or ecotourism-related livelihoods*: By EOP, at least 100 households have increased their income from marine resources by at least 15% relative to SOP baseline by increasing the value of fisheries products and/or increasing income from provision of goods and services to the tourism industry.	Baseline and EOP surveys, including gender-specific questions, of men and women engaging with the project on livelihoods training/technical support .	Quantitative income indicators assume reasonable degree of success in enabling community groups to obtain additional funding for livelihood initiatives from other sources i.e. activities 5.8 and 5.9.
	0.7b Inclusion and empowerment: (i) at least 80 fishers by project mid-point and 200 fishers by EOP have officially recognised fisheries access rights (ii) by EOP, in 70% of seascape villages the primary stakeholders report substantially	(i) Fisheries registration database and permits, carried by fishers, which specify the "home" MPA, to which they have rights of access. (ii) Focus group discussions with a representative sample of primary	

	stronger influence on MPA management decisions than before the project.	stakeholders in each of at least seven villages. Most participants will be (predominantly male) fishers but we will also hold separate FGDs with women and men involved in fish processing and marketing, and in (eco)tourism service provision.	
	*0.7c Cooperation with other stakeholders: (*i) By EOP the seascape stakeholder forum has achieved consensus on actions to address at least 2 major fisheries issues (1 by project mid-point) and at least 1 external threat to the seascape which impact the livelihoods of marginalized fishing communities (ii) By EOP there has been a 50% reduction in incidences of conflict over fisheries and marine resources.	Records of forum meetings and subsequent progress reports on agreed actions. Reports by MPA co-management NGOs (FUCSA, FIB, CCF). Focus group discussions with stakeholders in at least seven villages, as a representative sample. Most participants will be fishers but the groups will also include women and men involved in fish processing and marketing, and in ecotourism service provision.	
	0.7d *Food security*: By EOP, at least 80 low income households able to meet household food requirements during periods of unfavourable weather without resorting to unsustainable harvesting of juvenile marine organisms	EOP surveys of women and men from poorer households to assess levels of food insecurity.	
	0.7e *Marine resource status*: By EOP, at least 60% of women and 60% of men report that the project has contributed to improvements in the health and sustainability of the marine resources on which they depend	EOP survey of women and men in seascape communities, triangulated with information gained from inclusion of this topic in focus group discussions and in the participatory EOP evaluation, as well as ecological and fisheries data under Output 3.	

Output 1 **1.** Across the seascape, management of key fisheries, habitats and species are strengthened through coordinated planning and action.	1.1 Spatial management priorities for seascape agreed amongst stakeholders and co-managers by Sept 2018 and 3 or more measures benefitting fisheries under implementation by EOP. 1.2 Habitat conservation measures agreed and adopted by seascape stakeholders, co-managers and authorities: (i) mangrove protection/ restoration, (ii) elimination of bottom trawling, (iii) sediment and pollutant reduction by commercial agriculture at estuaries, (iv) management measures for fisheries in estuaries and coastal lagoons, (v) other measures tbd with stakeholders. At least 1 of these by December 2016, 3 by December 2017, 4 by EOP. 1.3 Seascape-wide yellowtail snapper (*Ocyurus chrysurus*) fishery management and monitoring plan agreed and adopted by December 2017 and in implementation by March 2018.	1.1 Document analysing current spatial management from integrated seascape management perspective. Records of stakeholder forum and co-manager discussions and agreements. MPA co-manager activity reports of measures, such as additional protection for zones with critical connectivity function, seasonal closures in certain zones, fishing quota distribution etc. 1.2 Records of stakeholder forum and individual MPA participatory management meetings between co- managers, stakeholders and scientists. Authority resolutions where relevant. Public dissemination materials about measures. Co-manager progress reports. Project Steering Group presentation to stakeholder forum and feedback received. 1.3 Records of stakeholder forum and individual MPA participatory management meetings between co- managers, stakeholders and scientists. Authority resolutions where relevant. Public dissemination materials about measures. Co-manager progress reports. Project Steering Group presentation to stakeholder forum and feedback received. 1.4 Project partner records of people	Habitat measures would be developed through participatory governance mechanisms involving MPA co-managers and stakeholder groups. We assume that they would confirm most or all of these themes as but are open to the possibility that they may bring one or more additional priorities to the table. We assume the oil palm managers will continue to be open to dialogue with stakeholders and authorities about reducing impacts of their operations. We assume that the NGO co-managers of the three MPAs will broadly maintain their current levels of management capacity and operating revenue, as they intend to do (as a minimum). Thus, the improvements through this Darwin project will be incremental, leveraging existing capacities and facilitating additional fund-raising. The agreed priority management measures will be initiated through this project, to achieve EOP aims, and co-managers will continue the activities beyond the project. All parties will cooperate with efforts to secure additional funding in order to accelerate the pace and scope of implementation during and after the project (see activity 1.9). There is much scope in the GEF project, well

	1.4 Numbers of people and institutions engaged actively in conservation and monitoring of manatee, hawksbill turtle and Utila iguana increased by 30% by March 2017 and 60% by EOP.	signing up as volunteers (e.g. iguana nest protection, iguana protection), or providing monitoring data, reporting incidents, doing conservation education etc. Data on public action will be disaggregated by age groups as well as gender. Baseline tbd in Q1.	beyond what we have counted on for budgeting purposes (see letter from GEF project leader).
Output 2 **2**. Across the seascape, there is increased compliance with regulations and enforcement capacity is enhanced.	2.1 By Dec 2018 30 enforcement personnel have improved knowledge and skills and are sharing relevant information between MPAs. 2.2 By Sept 2018 >50% of fishing sector stakeholders consider that the fisheries regulations are reasonable and should be complied with. 2.3 By December 2018 reduction of 50% in level of illegal activities detected relative to intensity of surveillance.	2.1 Training records, post-training evaluation, follow-up interviews to assess use of learning and sharing of information. 2.2 Survey data and focus group discussions. CCMNM has detailed studies of fisher opinions about regulations, zoning and their economic needs. The project will use this as the basis for monitoring willingness to comply and feasibility of compliance, from the perspective of fishers and other stakeholders. 2.3 Records maintained by Navy, CEM, co-management NGOs and communities. These will be complemented by minutes of periodic meetings with Navy, co-manager, fishing cooperative and tour-operator groups to verify that all consider the reduced detection reflects real increase in compliance rather than inefficiency or corruption. Baseline data are available for each MPA but need to be harmonised and the precise common indicators defined in Q1.	We assume that, as affirmed in CEM's letter of support, CEM, the Smithsonian Institution and the Government of Honduras will continue with the roll-out of the surveillance, monitoring and fisher security system, using "Pelagic Data Systems" technology, which is currently being piloted in four locations, including CSWR and Utila (*see flyer*). Our project's role is thus to complement the new technological tool with activities to build Navy personnel capacity and to increase the social acceptability of regulations through stakeholder participation in their formulation, affirmation of access rights and use of monitoring data on both the effectiveness of control and resource trends. As mentioned in CEM's letter, we assume that the Government will continue its determined efforts at national level to establish effective control of marine activities, which have already delivered significant results. We assume that empowerment, especially secure resource access and increased involvement in generating and debating information for

			management decisions, will increase willingness to comply. However, perceptions of the **feasibility** of compliance will depend on progress on improving livelihoods, so there is an iterative process of improving compliance and livelihoods in tandem.
Output 3 **3**. Evidence base for marine conservation and sustainable fisheries management is strengthened, through research and seascape-wide sharing of scientific and traditional knowledge, and is informing seascape management.	3.1 By June 2017 at least 300 stakeholders, across all seascape communities, plus other interested parties, have received new information about ecological connectivity and ecosystem values, relevant to them. 3.2 By March 2018 synthesis of existing and new ecological information available to inform spatial management measures and fisheries management (snapper and estuarine fisheries) referred to in Output 1 above. 3.3 By Sept 2017 a report on bottom trawling impacts and the reasons for eliminating it from the seascape is produced, in collaboration with co-managers and stakeholders, and presented by them to relevant authorities. 3.4 Two socio-economic, cultural and market studies completed to inform outputs 2 (management) and 5 livelihoods), by Sept 2017 and March 2018.	3.1 Publication, prepared in collaboration with co-managers and stakeholders, and audience-specific materials derived from it. Records of distribution and presentation at meetings. 3.2 Research reports. Products of meetings with fishers to incorporate traditional knowledge. Reports of meetings between MPA co-managers, stakeholders and project personnel on sharing information. Documents synthesising information from sources across the seascape. Presentations. 3.3 The report and records of response from authorities (statements and actions). 3.4 Study reports and documents showing their use by co-managers and community groups respectively.	We assume Government will be open to dialogue about restrictions on bottom trawling and other destructive fishing practices. The bottom trawling is already infrequent, and is prohibited within the MPAs but not seascape-wide. However, recent legislation relaxes restrictions and it is important to counteract initiatives to revitalise the industry and expand its activities. We assume Government, co-managers and communities will be willing to use evidence based on scientific and traditional knowledge to support new conservation and livelihood measures.

	3.5 Findings of seascape-wide monitoring, incorporating individual MPA monitoring results, is discussed by the seascape stakeholder forum with co-managers at least three times in the course of the project, by Sept 2017 and Sept 2018 and at EOP. 3.6 By Sept 2018 co-managers and stakeholder forum agree a protocol for maintaining and sharing information, plus channels for access by outside parties under principles of open access. 3.7 Simple, sustainable post-project monitoring system adopted by co-managers and stakeholder forum, by EOP	3.5 Documents and presentations provided to the forum 3.6 Signed agreement. Records of access to information by seascape actors and by external parties. Verifiable by direct experience of access. 3.7 Document describing monitoring system, with records of meeting agreeing to apply it. Relevant data on EOP status	
Output 4 4. The principal seascape stakeholders have enhanced social capital, with a forum and networks for cooperation on participatory marine management, fisheries, ecotourism and other priority development issues which they may identify.	4.1 By Dec 2016 the forum is set up and equitably representing the stakeholders who depend directly on the seascape; aim to reach 30% female representation. 4.2 Forum is sharing information by March 2017 and by June 2017 is producing joint resolutions and contributing to development of the management measures described under Output 1. 4.3 By Dec 2017, two action plans adopted by the stakeholder forum in relation to their shared interests in sustainable fisheries and ecotourism, with women's concerns incorporated. 4.4 Three funding proposals developed	4.1 Records of community meetings. Minutes of first forum meeting. Correspondence with stakeholder groups. 4.2 Records of forum meetings. Statements by the forum and by member groups about the management measures. Verify through interviews and focus groups at EOP. 4.3 Records of forum meetings. Subsequent progress reports on action plan implementation. 4.4 Funding proposals and records of	We assume co-managers are willing and interested in aligning and developing joint regulations and marine management plans. We assume that, with good preparation and expert facilitation, any barriers to networking between coastal communities can be overcome. Regarding barriers to participation by women and vulnerable groups, our experience with the fishers' cooperative APROCUS has been positive (e.g. 3/9 board members are women). Regarding cultural barriers, 7 of the 18 villages have Garifuna people, who have a distinct culture but similar fishing practices and poverty levels.

	on the basis of seascape stakeholder agreements, by March 2018. 4.5 MPA access and regulations harmonised across the seascape by Sept 2018, including inter-community agreements on shared fishing grounds. 4.6 By EOP the stakeholders consider that the forum and associated networks and external links bring significant benefits that justify their investment of time and effort (transaction costs).	their submission to potential donors. 4.5 Published regulations. Agreements between co-managers and authorities. Minutes of forum meetings and of facilitated inter-community negotiations. 4.6 Focus groups and interviews with stakeholders, including the Most Significant Change methodology.	Hitherto we have not encountered barriers to dialogue, but will be sensitive to that and to the positive reinforcement of cultural traditions. We assume that donors will be interested in community proposals developed through this process. Evidence is provided by the letter from the UNDP Small Grants Program, confirming their intention to cooperate with the project.
Output 5 5. 150 community members, who depend directly on the seascape, have enhanced human capital and are empowered to access and sustainably manage fisheries and strengthen economic enterprises.	5.1 By Sept 2018, 150 people, including at least 30% women and individuals from groups identified as vulnerable, are trained to participate in marine governance and management. 5.2 By June 2018, at each MPA processes for participation by local stakeholders in governance are strengthened. 5.3 Registration of local fishers, confirming their access rights, is completed at the three MPAs by March 2018. 5.4 By EOP, sustainable fisheries or ecotourism-related enterprises are developed, or existing enterprises improved, benefitting people in at least six communities, with emphasis on women and vulnerable groups.	5.1 Training records, post-training evaluation, recorded follow-up interviews to assess use of learning, meeting minutes and attendance lists. 5.2 Signed agreements between co-managers and stakeholder groups, including resolution of areas of tension or conflict. Records of meetings and actions taken in fulfilment of the agreements. 5.3 Registration database. Credentials issued to fishers. 5.4 Written and photographic records of enterprises and interviews with people participating in them.	We assume that coastal communities will be willing to invest the time necessary for effective participation. Experience suggests that they will if they truly influence decisions. We assume that fisheries access rights system can be readily adapted to local context and needs. We assume that coastal communities will have sufficient commitment to develop the capacities needed for improved fisheries-related livelihoods and for improved or new enterprises linked to the tourism market in this part of Honduras. We assume that existing tourism volumes in this part of Honduras will be maintained, as recent trends indicate, so that there continues to be scope for small, ecotourism-related enterprises.

	5.5 One international learning visit conducted to a community-based sustainable fisheries project (Kanan Kay, Mexico), by March 2017. 5.6 Case study published on the value of artisanal fisheries and the empowerment of coastal communities, by EOP.	5.5 Visit agenda and report. Follow-up interviews on use of lessons learned. 5.6 Published case study and associated conference presentations and media coverage.	We assume that food insecurity is caused largely by limited capacity to access resources, low income from fishing, high dependence on fishing and declining fish stocks in estuarine and nearshore areas.

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)

1.1 Discuss the findings of the spatial management assessment (see output 3) amongst the MPA co-managers and with the stakeholder forum, and facilitate agreement on consequent management decisions and actions in individual MPAs, the unprotected area or seascape-wide. Support initial implementation of priority new measures.

1.2 Support implementation of priority mangrove conservation activities in the seascape, including removal of introduced African Oil Palm, restoration by local groups (predominantly women), and demarcation of boundaries to curb cutting and livestock incursions.

1.3 Present the assessment of bottom trawling impacts (see output 3) to the MPA co-managers and the stakeholder forum for discussion and decisions on a proposal to government on policy and actions. Support preparation and presentation of this proposal by stakeholders and co-managers to government.

1.4 Present to the MPA co-managers, the stakeholder forum, municipal authorities and agricultural stakeholders the assessment of seascape estuaries and coastal lagoons, including their role in sustaining marine and brackish water fish populations, their connectivity with sea grass beds and reefs, their pollution (including oil palm waste) and sediment problems, and their use by women and men for subsistence fisheries.

1.5 Facilitate the development of affordable action plans for estuaries/lagoons, which would include measures by plantations to reduce pollution and sediment and monitor changes, and promote its implementation in priority sites (CSWR estuary, Cacao lagoon).

1.6 Work with local users, principally subsistence fishers but also commercial fishers and tourism users, to understand the multi-species fisheries in estuaries and lagoons and their inter-dependence with marine fish populations. Develop community action plans to improve fisheries and make them more sustainable fisheries, with emphasis on subsistence fisheries by vulnerable groups and use of inshore areas in periods when weather prevents ocean fishing. Contribute technical support to implementation and participatory monitoring.

1.7 Present the findings of the yellowtail snapper studies (see output 3) to the MPA co-managers and the stakeholder forum, to discuss and decide actions to improve the management and sustainable use of the resource, as well as potential implications for other fisheries in the seascape. Contribute technical support to implementation and participatory monitoring.

1.8 Enable NGO lead agency for each flagship species to present species status and action plans to stakeholder forum, where actions to enhance custodianship and stimulate participation by seascape users will be agreed. Provide small-scale support to actions by stakeholders to reduce threats (by-catch, collisions, killing for consumption, habitat degradation).

1.9 Collaborate on the development of funding proposals for further implementation and expansion of the seascape management activities developed under this

project.
2.1 Work with the Navy to incorporate a short module on protection of marine resources in their training programmes, and design and deliver a pilot module. 2.2 Establish practice of sharing information between co-managers about fisheries and tourism users of the seascape, including any irregularities such as illegal catches, with a view to identifying risks, preventing infractions, and facilitating detection and prosecution. 2.3 Organize the process by which local stakeholders participate in the piloting, evaluation and roll-out of the artisanal vessel tracking system (by Government of Honduras, CEM and Smithsonian), so that its use enjoys broad support and cooperation, especially by fishing cooperatives committed to responsible fishing practices. (Stakeholder support depends on perceptions of the fairness and technical justification for regulations, also addressed by this project). 2.4 Disseminate widely amongst stakeholders and authorities information about access rights, responsibilities and regulations within the seascape, especially any new or modified regulations that are prepared through this project. In each case, explain reasons, benefits and stakeholder input to formulating the regulations. 2.5 Monitor the effectiveness of control and response to illegal activities and make the results publicly available.
3.1 Drawing on the work already done (see M&E section below), review existing data on ecological connectivity between key components of the seascape ecosystem: mangroves, estuaries and coastal lagoons, sea grass beds and coral reefs. This will focus on key habitat for different life cycle stages of species important for commercial and subsistence fisheries (marine and brackish water), as well as the three flagship species. It will also cover data on fisheries. 3.2 Conduct meetings with fishers and other coastal community members throughout the seascape, to compile complementary traditional knowledge of the same issues. 3.3 Together with co-managers and stakeholders identify and prioritise gaps in the above information, which include detailed habitat mapping, updated status of coastal lagoons and estuaries, mangrove and sea grass (using modified CARICOMP method http://biogeodb.stri.si.edu/physical_monitoring/downloads/caricomp_manual_2001.pdf), effects of pollution, larval movements and data on yellowtail snapper and other fisheries for Cuero y Salado and Utila. 3.4 Undertake research critical for the management purposes summarised under Output 1, i.e. estuary and lagoon management, maintaining critical habitat and connectivity, sustaining subsistence fisheries, conserving threatened species. 3.5 Study the zoning schemes of the three MPA and other spatial management measures applied in the seascape, and assess how well they collectively serve the needs of the seascape, taking into consideration advances in knowledge of habitats, species, connectivity and resource use. 3.6 Analyse ecological and fishery information for yellowtail snapper across the seascape, including size distributions in different locations and the size-reproductive capacity relationship, and produce recommendations for improving management of this resource. 3.7 Use global information on bottom trawling impacts and local experience of excluding bottom trawling from MPA's to characterise the potential benefits of eliminating that fishing method from the whole seascape. 3.8 Prepare and disseminate a technical publication about ecological connectivity in the seascape, together with a popular summary version, and present it in community meetings. 3.9 Prepare and provide to the MPA co-managers and the stakeholder forum technical reports, incorporating scientific and traditional knowledge, to inform their

discussions on the themes listed under Output 1 and others requested by the forum.

3.10 Undertake two socio-economic, cultural and market studies needed to support the sustainable livelihood initiatives to be identified under Output 5.

3.11 Agree between co-managers and seascape stakeholders a protocol for managing seascape information to facilitate open access for all actors, and for interested outside parties. In principle, this will formalise within-seascape practices developed through this project, and in addition use the partners' institutional information systems and regional or thematic portal(s) that are already functioning (e.g. Healthy Reefs). Periodically review and update the protocol.

3.12 Design, in consultation with MPA co-managers and stakeholder, a simple, low-cost seascape-wide participatory monitoring system, which builds on individual MPA systems and focuses on elements of joint interest (e.g. shared fisheries resources, mangroves). This will include CEM-led trials of the Android app OurFish, which is a catch monitoring tool for use by fish buyers and cooperatives. The project will support initial implementation of the participatory monitoring.

4.1 Building on LARECOTURH's work to mobilise a multi-community group on mangrove conservation, bring together MPA co-managers and marine stakeholders, principally those dependent on artisanal fisheries or small-scale ecotourism ventures, from the user communities of CSWR and CCMNM and the Utila Cayo community of BIMNP. Facilitate an event to identify themes of common interest (and in certain cases, tension or conflict) in relation to the marine ecosystem and its uses and values, and their aspirations for improved livelihoods and food security and reduced vulnerability. Agree and implement follow-up steps, including the establishment of a regular, seascape-wide forum, complemented by working groups and processes for dialogue and cooperation between communities on specific themes.

4.2 Support and facilitate the further development and operation of the forum and associated sub-groups and processes, including the production of basic guiding documents, then joint action plans around the themes of marine management (output 1), livelihood opportunities (output 5) and other topics which they may identify.

4.3 Support processes of feedback between representatives in the forum/working groups and the stakeholder groups to which they pertain. It is not anticipated that the forum will have formal power, nevertheless its legitimacy amongst stakeholders as a space for debate of important issues is crucial.

4.4 Expand the prior work of LARECOTURH in connecting community groups of ecotourism service providers and fish suppliers with potential partners in the tourism industry, who already bring clients to the area.

4.5 Support the development of proposals by groups of seascape stakeholders to obtain financial and technical support for the projects which they prioritise, and enable them to present these proposals to UNDP Small Grants Program and other sources.

4.6 Facilitate discussion within the forum and sub-groups of access rights, which are being introduced in each of the three MPAs, and identify opportunities for improved management, and resolution of actual or potential conflicts (e.g. fishing grounds midway between CSWR and Utila). Use spatial data on resources and their use in the seascape to inform these discussions and develop equitable agreements on access rights. Use this ongoing dialogue to advance progress on the introduction of access rights across the whole seascape, taking care to identify and safeguard the interests of vulnerable groups.

4.7 Facilitate discussion within the forum and sub-groups of fisheries regulations in the three MPAs and identify opportunities for harmonisation, in order to improve management and promote responsible fisheries throughout the seascape.

4.8 Maintain records of the work of the forum and its sub-groups and incorporate in the process periodic feedback from participants to ensure that the forum is effective in serving the needs of members and is valued by them.

5.1 Amongst the community members who depend directly on marine resources, identify sub-groups or individuals who are especially vulnerable e.g. because of heavy dependence on subsistence fisheries, marginalisation from decision-making or gender-related factors. Ensure that they are prioritised in the training and empowerment processes.

5.2 Complete registration of fishers with access rights to CCMNM and CSWR respectively, and of Utila fishers.

5.3 Continue strengthening the CSWR fishing cooperative, APROCUS, and expanding the role of women in it.

5.4 Use the successful experience of APROCUS to inspire and guide strengthening of other fishers' organisations associated with Utila and CCMNM, and to

strengthen the systems and structures for participatory governance, especially of CCMNM, as envisaged in the 2014-25 management plan. This will strengthening the Community Commission and increasing the role of women and vulnerable groups within it.

5.5 As part of the above, design and implement a series of training events related to the strengthening of internal organisation, representation, negotiation and conflict management. APROCUS leaders will be involved in sharing their experiences and delivering elements of the training, alongside project partners.

5.6 Provide training on participatory governance for staff of co-managers and relevant authorities, to enable them to manage better and benefit from the participatory systems.

5.7 Organize a visit to learn from fishers, NGOs and authorities involved in the Kanan Kay Alliance, Mexico. A minimum of 4 people will travel, including 3 fishers, but we aim to expand the group by finding additional funds and contributions in kind. Undertake post-visit events and informal feedback to relay experiences and ideas.

5.8 Through strategic planning exercises, plus exchange of ideas between the user groups, assist the groups to identify priority livelihood development aims and develop action plans. Where possible, connect the community groups with relevant buyers, collaborators or sources of technical assistance and funding e.g. UNDP Small Grants Program.

5.9 For a few selected livelihoods initiatives linked to marine resources (e.g. fisheries, blue crab fishery at Utila, provision of goods and services to tourism industry) and involving women or vulnerable groups, provide technical assistance, market research, business planning advice and/or other small-scale inputs. Where appropriate, develop funding proposals involving the local entrepreneurs and one or more project partners to expand these initiatives.

5.10 Prepare and publish a case study and present it in at least one regional event.

17. Annex 3: Standard Measures

Table 1 Project Standard Output Measures

		actual	actual	planned		
Code	**Description**	**Year 1 Total**	**Year 2 Total**	**Year 3 Total**	**Project Total**	**Variation**
6A	Number of people to receive other forms of education/training (which does not fall into categories 1-5 above) *	65	430	70	565	360
6B	Number of training weeks to be provided	3	13.4	3	19.4	10
7	Number of (e.g., different types - not volume - of material produced) training materials to be produced for use by host country	5	3	3	11	0
14A	Number of conferences/seminars/ workshops to be organised to present/disseminate findings	1	2	1	4	1
20	Estimated value (£'s) of physical assets to be handed over to host country(ies)	£ 5,329	£ 6,420	£ 5,000	£ 16,749	1,420
22	Number of permanent field plots and sites to be established during the project and continued after Darwin funding has ceased	5	34	0	39	32
23	Value of resources raised from other sources (e.g., in addition to Darwin funding) for project work					

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)
Current status of the Yellow-tail snapper fishery in Honduras. A snapshot *	Report	Centre of Marine Ecology, compiled by Jimmy Andino, reviewed by Jorge Anariba, 2017	Male	Honduran		It will be available on-line through the CEMs webpage. http://www.utilaecology.org/
Monitoring guidelines for critical ecosystems for	Guidelines	Bay Islands Foundation, compiled by Diego	Male	Honduran		It will be available on-line through the FIB;s webpage

Utila (in Spanish)*		Lanza				http://www.utila-iguana.de/fib/index.html
Training on Management of Coastal Marine Resources to the Navy of Honduras	Agenda			Hondurans		Available upon request
Action Plan for the Protection of the Mangrove forest		Mayra Núñez y Jorge Anariba	Male and Female	Hondurans		Available upon request
Status of the yellowtail snapper fishery in Honduras: A snapshot	Report	Centre of Marine Ecology	Male	Hondurans		Available upon request
Iguana research and breeding station. Report on the reproduction and breeding for the year 2017		Geyvy Delarca, Erick Varela	Male and Female	Honduran		Available upon request
Second meeting of the signing of the convention of Cooperation ICF-APROCUS-FUCSA	Aide-memoire			Honduran		Available upon request
First encounter of Women fishers _ Larine landscape _Feb 2018	Report	Sara Tome	Female	Honduran		Available upon request
Genetic sampling for the study of yellowtail snapper and the parrot fish	Report	CEM		Honduran		Available upon request
Report on the exchange of experience of the Kanan Kay Alliance, Mexico.	Report	CEM		Honduran		Available upon request
Utila fishing zone map	Map	CEM		Honduran		Available upon request

18. Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	Yes
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	No
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	Yes
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number.	No
Have you involved your partners in preparation of the report and named the main contributors	Yes
Have you completed the Project Expenditure table fully?	Yes
Do not include claim forms or other communications with this report.	