

## Darwin Initiative Main and Post Project Annual Report

### Darwin Project Information

Project reference	24-020
Project title	Realising the values and benefits for communities of Nicaragua's Turtles
Country/ies	Nicaragua
Lead organisation	Fauna & Flora International (FFI)
Partner institution(s)	Fundación LIDER National Sea Turtle Conservation Network (NTCN) Nicaraguan Tourism Chamber (CANATUR) Dr Carolin Lusby, Florida International University (FIU) José Urteaga, Stanford University
Darwin grant value	£385,617
Start/end dates of project	1 June 2017 – 31 March 2021
Reporting period	1 April 2019 – 31 March 2020 Annual Report 3
Project Leader name	Alison Gunn
Project website/blog/social media	The project does not have a dedicated webpage. However the FFI website hosts a page on our broader marine turtle conservation programme in Nicaragua: <a href="http://www.fauna-flora.org/projects/conserving-marine-turtles-eastern-pacific-nicaragua">www.fauna-flora.org/projects/conserving-marine-turtles-eastern-pacific-nicaragua</a>
Report author(s) and date	Alison Gunn, supported by Velkiss Gadea, Eduardo Gomez, Eduin Paniagua, José Urteaga & Angelica Valdivia. June 2020

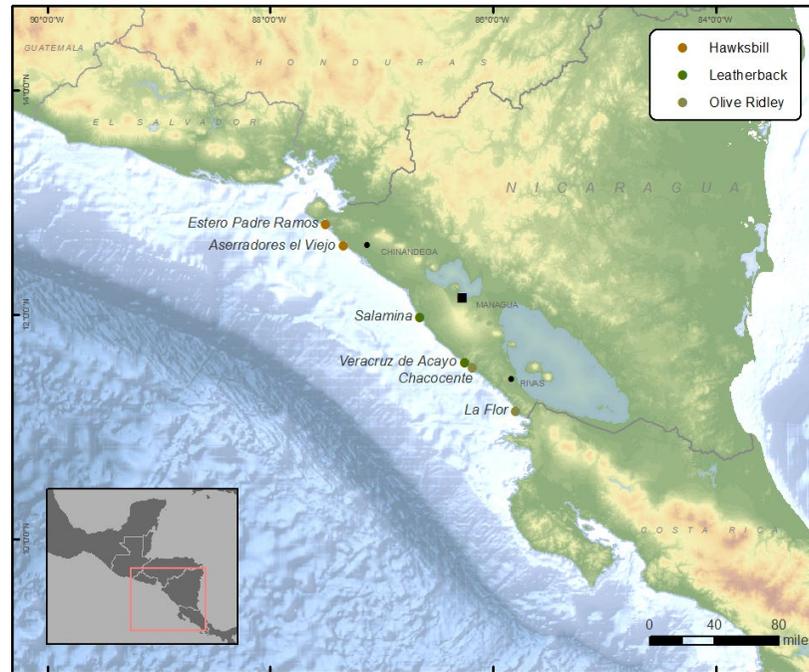
## 1. Project summary

Nicaragua has globally important Pacific turtle populations, including 52% of nesting Eastern Pacific Hawksbill (CR), plus Eastern Pacific Leatherback (CR), Green turtle (EN), and Olive Ridley (VU) (two of eleven mass nesting beaches). Many coastal people, who depend on agriculture and fishing, are poor and are vulnerable to disasters (FAO, 2015), perceive turtles as a source of supplementary income through poaching eggs or killing hawksbills for “tortoiseshell” rather than as a valuable living asset of which they are beneficiaries and custodians. Furthermore, some fishers use methods, especially “blast fishing” with explosives, which kill turtles and damage ecosystems on which turtles and fisheries depend. Turtle nests are being protected through enforcement and incentive payments, but this addresses only one problem and is unsustainable.

In the decade to 2018, Nicaragua experienced significant and rapid growth in tourism – for example, over the six years to 2015, tourism income increased by 58%, reaching 1.46 million visitors and \$528m. At project start, hotel construction threatened coastal habitat, businesses marginalised adjacent communities and some privately owned, tourist-oriented turtle hatcheries used inappropriate methods. However since 2018, when Nicaragua experienced significant and widespread socio-political unrest, the tourism industry has contracted sharply - an 80% year-on-year reduction in tourism levels was reported in January 2019, with this reducing further (to near zero) in March 2020 as the COVID-19 pandemic ensued. Nevertheless, in the medium- to long-term, the tourism sector in Nicaragua has the potential to exacerbate or improve the situation with respect to marine turtles, depending on policies and practices adopted as tourism recovers, with the current collapse in tourism representing an opportunity for reorientation towards best practice. One constraint for this is Nicaragua’s small pool of relevant scientists and technical experts, who have few opportunities for exchange with peers, notably in Costa Rica where turtle-related tourism delivers substantial economic benefits.

Marine turtle conservation in Nicaragua is dependent on external assistance, while coastal community livelihoods are inadequate and unsustainable. Pre-project dialogue with coastal communities, scientists and technical experts, and work on participatory marine governance identified solutions involving improved marine resource-based livelihoods and access to tourism-related opportunities. Engagement of tourism entities has revealed strong interest in strategic positioning of Nicaragua as an ecotourism destination, with communities as partners and turtles as flagship species. This investigation, awareness raised and relationships developed have informed this project’s strategy and provided the platform for implementation.

The project focusses on the Pacific coast of Nicaragua, with a focus on coastal communities across four administrative coastal departments of Nicaragua (Chinandega, León, Managua, Carazo) near key marine turtle nesting sites, as shown on the map below.



## 2. Project partnerships

Working in partnership is central to how FFI operates. Through this Darwin Initiative project, we are working collaboratively with a range of people and groups in Nicaragua and internationally – with beneficiary communities, national NGOs, universities and local enterprises, as well as collaborating with international experts. FFI’s formal partnerships for the delivery of this project include:

**Fundación LIDER:** LIDER’s role in the project is to support community groups in the north of Nicaragua in developing sustainable coastal livelihoods, including establishing concessions for custodianship of mangroves, sustainable mangrove cockle harvesting and an environmentally licensed snapper rearing facility. These activities build upon Fundación LIDER’s experience in establishing collective enterprises to improve community livelihoods based on sustainable management of natural resources in the department of Chinandega. In 2019, FFI and LIDER renewed our agreement governing LIDER’s role in the project, with a focus on the activities under Year 3 of the project (see Annex 4H); this agreement will be updated and renewed for Year 4 in line with agreed priorities for the remainder of the project. LIDER staff work closely with the FFI project team to plan activities and approaches, monitor progress and adaptively manage the project’s approach with target communities in this site. FFI’s Specialist in Community Livelihoods works with LIDER to provide continuous technical support to field activities, with FFI’s Marine Turtle Programme Manager as our lead liaison with LIDER’s Coordinator. Our partnership has proved highly effective, and project activities and outputs delivered in partnership with LIDER have continued to progress well during Y3, expanding the project’s support to nine community cooperatives linked to artisanal fishing, sustainable mangrove cockle collection and snapper cultivation in the Padre Ramos estuary (EPR).

**National Nicaraguan Tourism Chamber:** CANATUR promotes sustainable tourism development in Nicaragua and represents the professional interests of national tourism enterprises. Under a project-specific agreement initiated in Y1, CANATUR has worked with FFI to enhance recognition of the value of marine turtles within Nicaragua's tourism industry, with activities in Y3 focused on the assessment and characterisation of the values of marine turtles as a tourism asset in Nicaragua and work to promote the importance of marine turtles for tourism amongst CANATUR's members.

**Dr. Carolin Lusby, Florida International University:** Through the project, Carolin has collaborated with FFI on the design of community-based ecotourism tourism training modules and materials, and recommendations for improving the community-based ecotourism products for national and international operators. In Y1 Carolin's inputs were formalised through a consultancy contract with FFI; however in Y2 her work to support delivery of the training modules was put on hold (and associated budget re-deployed) in response to the national security situation, associated collapse in tourism and suspension of international travel. In Y3, her support to the project was refined to focus on adaptation and refinement of the training materials for their delivery as (i) a stand-alone course for key Nicaraguan professionals in tourism, coastal development, municipal planning, and natural and social sciences; (ii) to local coastal ecotourism stakeholders, including community members and small enterprises.

**José Urteaga, Stanford University:** José is in the final year of his Doctorate in the Emmett Interdisciplinary Program in Environment and Resources at Stanford University. FFI's pre-existing Memorandum of Understanding with José recognised our mutual desire to collaborate to advance scientific knowledge and practice relating to marine turtle conservation in Nicaragua. Throughout the project, José has been providing technical inputs to guide the design, methods and sustainability of project monitoring, particularly in relation to the investigation of turtle-related knowledge, attitudes and motivations amongst coastal communities in Nicaragua. José also has an advisory role on the project steering committee, and has proved to be a significant asset to the team. He has also supported the development of national guidelines for the management of hatcheries. José's technical inputs have been formalised through a consultancy contract with FFI for the project duration.

**Informal collaborations:** In Y3, the project has also collaborated and engaged with organisations and communities not listed as formal project partners. These include:

**National Universities:** As described under Activity 2.1, FFI has extended our collaborations with academic institutions to support student placements and research projects, through collaboration with three national universities in Y3. These were: the *National Agrarian University (UNA)*, through their Faculties of Animal Sciences and Natural Resources & Environment; the *National Autonomous University of León (UNAN-León)* with whom we signed a tripartite agreement in Y2 alongside Fundación LIDER; and the *National Autonomous University of Managua (UNAN-Managua)* with respect to their Sustainable Tourism degree course, through an agreement with their Faculty of Education and Languages.

### **3. Project progress**

#### **3.1 Progress in carrying out project Activities**

##### Project Management

The **Project Steering Committee** has five members – FFI Project Lead, FFI Nicaragua Director, FFI Marine Turtle Programme Manager, FFI Specialist in Community Livelihoods and the project's consultant Technical Adviser / Socioeconomic M&E Specialist. The committee has continued to meet regularly throughout Y3 - through four meetings via Skype and one face-to-face meeting in Managua - in addition to multiple meetings of the project team throughout the year. At the start of Y3, the Committee reviewed FFI's rapid and informal 'mid-term evaluation' of the project, updated the Y3 workplan, agreed priority next steps, and discussed how best to improve project-level Monitoring & Evaluation. It has continued to act as a key forum for the adaptive management of

project activities in the light of project successes, lessons learned and challenges faced – including with respect to the security/political situation in Nicaragua and, more recently, the impact of COVID-19 on the project.

#### Output 1. Tourism and development informed by economic valuation of turtles

***Activity 1.1 In collaboration with partners from tourism sector (tourism agencies, industry bodies and operators - including CANATUR - governmental authorities, and FIU) and turtle conservation groups, design methodology and implement valuation study into the economic and social-cultural values of Nicaragua's Pacific coast turtles. Share preliminary results with partners for feedback.***

As previously reported, whilst the scope and methods for the valuation study were agreed in Y1, the study itself was put on hold in Y2 due to the national instability and collapse in the tourism sector. In Y3, the selected team of experts in environmental economics, value chains, and sustainable tourism from CANATUR and CDETur (the Research Department of CANATUR's Centre for Tourism Business Development) led this study. With support from FFI, the study team drew together historical data and existing information, alongside primary surveys and interviews with stakeholder groups from the communities and enterprises along the Pacific coast. A first draft of the study's initial findings was shared with FFI in September 2019. Following in depth review, our review team suggested and requested two rounds of substantial revisions in line with the original scope of work and in terms of how the data was presented and analysed. The resulting final document "*Valoración Económica de las Tortugas Marinas del Pacífico de Nicaragua*" (Annex 4A) - whilst we recognise it still has certain shortfalls - represents an important body of work from which important findings can be extrapolated, shared and built upon. For example, we plan to address limitations in the study's evaluation of socio-cultural values of turtles in Nicaragua through incorporation of relevant questions in our end-of-project socio-economic monitoring plans.

***Activity 1.2 In collaboration with tourism and turtle conservation partners, develop communications plan for the dissemination of key information from the study to target audiences (decision makers, tourism sector, coastal communities). Contract the design and production of appropriate and agreed communications materials.***

Towards the end of Y3, the project team began working with FFI's Communications Specialist in Nicaragua to develop a communications plan for the dissemination of key information from the valuation study (Activity 1.1). Building on FFI's recently strengthened relations with government authorities (see Activity 1.4), elements of this communications plan align directly with the inter-institutional annual workplan agreed between FFI and six central government departments, including the Ministry of Environment and Natural Resources (MARENA) and National Tourism Institute (INTUR). Communications messages and materials will also be tailored to tourism industry actors (both INTUR and private sector) and coastal communities. Production and dissemination of these materials is a priority for the 4<sup>th</sup> and final year of this project.

***Activity 1.3 Share finalised report and disseminate communications materials amongst tourism and turtle conservation partners, other stakeholders and target audiences (including coastal municipal authorities, MARENA, leaders from target coastal communities, media agencies) and monitor impact.***

As per Activity 1.3, production and dissemination of communications materials is a priority for the 4<sup>th</sup> and final year of this project and will take advantage of FFI's improved relations with national authorities (see Activity 1.4).

***Activity 1.4 Engage with government authorities to inform relevant development policy formulation and planning processes in order to promote the integration of the conservation of turtles and their coastal/marine habitats into these national instruments.***

Throughout Y3, FFI has continued to seek collaboration with decision makers through all available channels. At the beginning of 2020, FFI appointed a new National Director in Nicaragua, who has successfully secured improved communications and relations with the Nicaraguan government, initially through the Ministry for External Affairs. As a result (and as per email update sent to the Darwin Secretariat in February 2020), FFI has developed mutually-agreed annual workplans with six government ministries: the Ministry of Environment and Natural Resources (MARENA); the Ministry for Family, Community, Cooperative

and Associative Economy (MEFCCA); the Nicaraguan Institute for Tourism (INTUR); the Nicaraguan Institute for Municipal Development (INIFOM); the Nicaraguan Fisheries Institute (INPESCA); and the Nicaraguan Institute for Agricultural and Livestock Technology (INTA) (*all but the last of these having direct relevance to this project*). This strengthened coordination and collaboration opens up new opportunities for promoting the integration of conservation values into government led initiatives throughout Y4, although policy-level influence remains unlikely.

***Activity 1.5 Collaborate with FIU, tourism chambers/associations, municipal authorities and communities to assess existing turtle/marine tourism near project locations and identify i) potential improvements to existing initiatives, ii) potential new community-based initiatives and iii) potential links between local product providers, national operators and international supply chains.***

Under the project, 30 sites have been identified along the Pacific coast of Nicaragua with turtle conservation activities and/or hatcheries linked to tourism:- 26 coastal hotels, three of which have strong links with community-based tourism; plus four sites where community-based tourism initiatives are being supported by NGOs or authorities. However, surveys to characterise the sites' market niches and opportunities (including potential for strengthening community-based ecotourism services) were disrupted in Y2 by the collapse in tourism and closure of many tourism enterprises. As described in more detail under Activity 1.6, the unprecedented and unforeseeable context for tourism in Nicaragua persisted in Y3, with the COVID-19 pandemic hitting just as the sector was witnessing some cautious growth. Accordingly, the external context is such that it has not been possible to engage the relevant stakeholders in the further process envisaged under this activity and this is likely to continue for the remainder of the project timeframe.

Nevertheless, the project has continued to support some site specific initiatives to strengthen community capacity for ecotourism products and services. In Y3, FFI established a new collaboration with the Faculty of Education and Languages at the National Autonomous University of Managua (UNAN-Managua), through their Sustainable Tourism degree course. As described in Activity 2.1, a cohort of students assessed existing turtle/marine tourism capacity and potential improvements for community-based ecotourism products and services in the Estero Padre Ramos (EPR) Natural Reserve. Their studies, SWOC analyses and recommendations included i) a plan to improve boat tours through EPR's mangroves and nesting areas and associated guiding services, and ii) recommendations for developing volunteer tourism facilities at the 'Casa Carey' ('Hawksbill House') in EPR, both dovetailing with ongoing work under Activities 3.2 and 3.3 (see Annex 4B).

***Activity 1.6 In collaboration with FIU, facilitate a workshop to assist CANATUR and governmental authorities to develop a strategy to package and promote community-based turtle/marine tourism initiatives in specific markets. Support delivery of strategy where appropriate, for example in developing links between local product providers and national / international operators and in guiding tourism product plans so that they follow technical, environmental and social good practice and strengthen links between livelihoods and custodianship of turtles and their habitat.***

The project has operated in an unprecedented and unforeseeable context for tourism in Nicaragua. In Y2, the sector contracted sharply in 2018 in response to the socio-political unrest across the country, with an 80% year-on-year reduction in tourism levels reported in January 2019. In Y3, tourism levels remained low, with thousands of small, medium and large tourism enterprises remaining closed and an estimated >50% reduction in tourism revenue compared to 2017 levels ([CANATUR, December 2019](#)). When the global COVID-19 pandemic hit in March 2020 it reduced tourism activity in Nicaragua to near zero. In the medium- to long-term, the tourism sector in Nicaragua has the potential to exacerbate or improve the situation with respect to marine turtles, depending on policies and practices adopted as tourism recovers.

Initial discussions were held at the Assembly of CANATUR members in August 2019 (see Annex 4C). However the workshop under this activity to develop a strategy to promote community-based ecotourism initiatives in specific markets has not gone ahead, as it has not been a priority for the relevant stakeholders in this period of uncertainty since early 2018. Whilst FFI continues to believe that the current collapse in tourism represents a valuable opportunity for reorientation towards best practice and the development of sustainable community-based ecotourism products and services, we recognise that - due to national and global factors outside the project's control - the development and delivery of a such a strategy is now unlikely to be achievable in the project timeframe. It is not the moment to develop new initiatives and nor expose community-based ventures to the risks of an unpredictable market.

Nevertheless, we will continue grassroots efforts to inform the development of community-based tourism products and services in line with environmental and social good practice (for example as described under Activities 1.5 and 2.3) and initiatives to strengthen links between livelihoods and custodianship of turtles and their habitat (as per Activities 3.1 to 3.5).

**Activity 1.7 Share lessons learned from the project through two publications; one technical report in English and a more popular publication in Spanish.**

Further learning documents arising from the project are scheduled to be compiled in Y4, as per Project Implementation Timetable.

Output 2. Nicaragua's technical capacity relevant to turtles increased.

**Activity 2.1 Through links with universities in Nicaragua, support undergraduate and graduate students to undertake research projects or internships on turtles, marine/coastal conservation, community-based ecotourism, sustainable livelihoods and socio-economic issues, either as part of their studies or to gain experience after graduating. Track their post-internship professional development.**

In Y3 FFI extended our collaborations with academic institutions to support student placements and research projects, through collaboration with three national universities. This year, the project supported five student thesis projects (three female, two male), two student internship placements (one female and one of the male thesis students above), and 20 short-term student research projects (14 female, six male). Therefore, a total of 26 students were supported in this period to build their conservation knowledge and experience.

*National Agrarian University (UNA):* Five students from UNA - four from the Faculty of Animal Sciences and one from the Faculty of Natural Resources and the Environment - undertook their thesis research projects with FFI between July and September 2019. Topics ranged from studying marine turtles parasites in Aserradores, to aquatic monitoring and an inventory of fauna and flora in the Padre Ramos Estuary (EPR). One of the UNA students went on to undertake their final year internship placement project with FFI from October 2019 to March 2020, focused upon a Pressure-State-Response (PSR) and Rapid Ecological Assessment of estuarine fringe habitats at Venecia and El Tintal – two key nesting areas for hawksbill turtles in EPR (see Annex 4B). This work has helped to identify coastal and mangrove areas and species in need of restoration in order to improve the quality of these fragile estuarine fringe habitats.

*National Autonomous University of León (UNAN-León):* One student from UNAN-León undertook an internship placement with FFI during and will be continuing this into Y4, as part of her final year research project on the impact of temperatures on hawksbill nesting in Aserradores. In addition, through the tripartite collaboration established in Y2 with UNAN-León and Fundación LIDER, four students (two undergraduates and two Masters students; two female, two male) completed their thesis research on monitoring biodiversity and water quality in the Padre Ramos Estuary. Key findings, with emphasis on the ecological impacts of the snapper rearing facilities supported under Activity 3.4, were compiled into a report for FFI and LIDER in June 2019 by their Departmental supervisor (see Annex 4D).

*National Autonomous University of Managua (UNAN-Managua):* FFI has established a new collaboration with UNAN-Managua's Faculty of Education and Languages, linking with students on their Sustainable Tourism degree course. In Y3, 20 students undertook three short-term field research projects in EPR; in groups of between 4 and 8 students, they developed i) an analysis of current capacity and future opportunities for community based tourism in EPR, ii) a tour management plan for boat tours in EPR, and iii) a manual for the improvement of tourist services and facilities at the 'Casa Carey' (see Annex 4B).

FFI is tracking post-internship professional development of previous alumni. Of 14 individual students who have undertaken placements and research projects to date, three are professionally employed full-time on marine turtle conservation projects, one has created a new community group focused on environmental education in Nicaragua, and three are continuing their studies in conservation related fields. Informal post-internship interviews have provided qualitative evidence of the value of the students' experiences; "My internship with FFI was the launch-point for my career" (A.S.), "My placement was deeply motivating"

(C.G.). We plan to conduct semi-structured interviews with alumni and a follow-up survey of the students on UNAN-Managua's course in Sustainable Tourism in Y4.

***Activity 2.2 Through partnership with FIU, develop and deliver a module on coastal community-based ecotourism, including a field trip to observe turtle tourism and low-impact coastal development - to inform and influence current and future professionals in tourism, coastal development, municipal planning, and natural and social sciences. Deliver the module at least three times; incorporate into at least one university course covering sustainable tourism (UAM) and adapt for delivery as a stand-alone course for key professionals. Monitor subsequent use of knowledge and skills.***

In Y3, FFI and FIU resumed work on the training module on sustainable tourism, eco-tourism and coastal community-based tourism. FIU's Dr Carolin Lusby led work to fully revise and re-formulate the training materials drafted in Y1 into a complete English language resource workbook compiling relevant theory, case studies, and links to further reading and external resources. Workbook chapters cover: 1) Concepts and tools of sustainable, community-based ecotourism operation and management; 2) What is ecotourism, what makes it different, and what new potential markets it opens up; 3) Marketing and distribution channels, links, and products specific to community-based ecotourism; 4) Importance of Nicaragua's natural coastal-marine resources, including marine turtles, and their value for the growing ecotourism sector; 5) Carrying capacity, limits of acceptable change and management tools specific to community-based ecotourism; 6) Tools and resources for building the capacity of community-based ecotourism entrepreneurs and service providers. The translated resources will be easily adaptable for delivery and sharing as a series of target audience-appropriate training materials for a variety of stakeholders in Nicaragua, including existing tourism industry actors, tourism guides, community entrepreneurs, conservationists, tourism students, Nicaragua's Tourism Institute.

In light of the external context for tourism in Nicaragua, it has not been appropriate timing during Y3 to roll out the delivery of this training as envisaged at project conception. Nor has it been possible for FIU's specialist to travel to Nicaragua to support training delivery through her lectures for students on the Sustainable Tourism course at the Universidad Americana (UAM). At time of writing, we do not envisage a significant change to this situation in the remainder of the project timeframe. Nevertheless, through our collaboration with UNAN-Managua's Faculty of Education and Languages we have delivered two course lectures to 32 Sustainable Tourism students and have opened discussions with them as to how the workbook resources can be incorporated into their Sustainable Tourism degree course.

*Nicaragua Azul*: The project has therefore also been increasing knowledge amongst professionals and stakeholders in tourism, coastal development, municipal planning and natural and social sciences of the value of and current threats to Nicaragua's oceans and biodiversity, through the Nicaragua Azul (or "Blue Nicaragua") itinerant marine museum initiative. The museum's exhibition has a modular structure, with detachable information panels containing high quality images and interpretation, as well as hand-on exhibits. The project supported its installation at the Universal School Pierre & Marie Curie at the end of Y2 and facilitated the launch event on 8 June 2019 to coincide with World Oceans Day. 86 people attended the event, including students, members of CANATUR, decision makers and other stakeholders. A press conference was held and the resulting press coverage (see Annex 4E) reached five national TV channels, four online/print [newspapers](#), and was disseminated on [social media](#). The museum opened to the public on 11 June, since when it has received over 1,200 visitors from schools, national universities, decision makers, NGOs, CANATUR, tourism businesses, scouts, coastal community members (from Salamina, Villa El Carmen, Costa Grande, Pie de Gigante, San Juan del Sur, El Ostional and Pochote), donor agencies, American universities, amongst others (see [www.nicaraguazul.com](http://www.nicaraguazul.com) and [www.facebook.com/nicaraguazul/](https://www.facebook.com/nicaraguazul/)). In January 2020, the Museum moved to the Reserva Natura, a private protected area in the municipality of Villa El Carmen, where it will remain for the foreseeable future. The museum is proving to be a valuable national asset in increasing knowledge, as a site for training and special events (such as the event held in March 2020, when the skeleton of a humpback whale was installed as a new exhibit).

**Activity 2.3 In consultation with NTCN members, authorities and tourism stakeholders, develop best practice guidelines (including technical, environmental and social responsibility considerations) for the management of turtle hatcheries linked to coastal tourism enterprises. Disseminate the guidelines and provide training to managers and staff of turtle hatchery/tourism initiatives in their implementation.**

The development of the best practice guidelines for the management of turtle hatcheries has involved a series of steps to ensure that the guidance is locally appropriate, scientifically valid and in line with accepted Principles for preparing good guidance (for example see [CIEEM, 2016](#)). The guidelines have been informed by a literature review of existing manuals and guidance (undertaken in Y1), relevant research (including a scientific evaluation of alternative incubation techniques in Y1 and Y2) and consultation meetings with conservation and tourism stakeholders (in Y2 and Y3). In Y3, the guidelines have been further developed and refined through a participatory and transparent review process, which included a workshop held in December 2019 (involving ten stakeholders from two NGOs, three tourism enterprises, one protected area authority and one academic) and invited contributions from a seven further stakeholder groups (including MARENA, national universities and NGO representatives). A full draft of the “*Manual for the Construction, Operation and Evaluation of Marine Turtle Hatcheries in Nicaragua*” has been produced (see Annex 4F) and the graphic design of the final publication is underway.

In line with FFI’s inter-institutional workplan with MARENA, two workshops have been scheduled for Y4 - the first with MARENA to review and approve the final version of the Manual and the second to disseminate the guidelines amongst ~15 key stakeholder groups (including INTUR, INPESCA, police and navy, relevant municipal authorities, tour guides, operators and conservationists). A series of three virtual training workshops will then be delivered to managers and staff of 29 organisations running turtle hatcheries, as identified through Activity 1.5 and corroborated through a stakeholder mapping exercise conducted at the workshop in December 2019.

**Activity 2.4 Facilitate and support strategic development of the NTCN. Provide ongoing support to NTCN members, helping them to organise collective statements and action on issues affecting turtles, facilitate data sharing, provide expert services to communities, authorities and the private sector, connect with regional peers and raise funds.**

As previously described, at the start of the project NTCN members agreed on a process to refresh and strengthen the Network through the selection of a new Board of Directors and development of strategic plans. However this process stalled in Y2, as key members of the Board left Nicaragua. In Y3, FFI put forward a proposal to the NTCN to convene a strategic planning meeting in July 2019, facilitated by José Urteaga and FFI turtle programme staff, but this offer was not taken up.

Nevertheless, FFI has continued to facilitate regular communications between stakeholders engaged in turtle conservation initiatives in Nicaragua (including NTCN members), via the ‘*Tortugeros Nicaragua*’ WhatsApp group. This forum has encouraged a wide variety of new members to become more active in national level collaboration and discussion, and has proved highly successful. ‘*Tortugeros Nicaragua*’ currently has 32 active members, regularly sharing information on nesting and hatching during the season, scientific reports and meetings, and wide ranging discussion of issues occurring on nesting beaches nationally and from Mexico, Costa Rica and El Salvador (3,520 messages since the group’s creation in 2017). This group is promoting a sense of community between beach patrollers, field biologists and academics working on turtle conservation issues, and we see this collaboration and motivation as vital to facilitating collective national action on issues affecting turtles.

**Activity 2.5 Organise a study visit to Costa Rica for tourism and conservation professionals, representatives of CANATUR and community members to learn from examples of sustainable turtle tourism and community-based ecotourism from peers and stakeholders in that country.**

In the project’s original Project Implementation Timetable, this activity was scheduled to take place in Y4. However, the impact of the 2018 unrest on the tourism sector in Nicaragua, combined with the impact of COVID-19 on international travel, the Steering Committee recommends cancelling plans for this study visit. A change request is in preparation.

Output 3. Coastal community members have skills/opportunities to engage in sustainable livelihoods.

**Activity 3.1 Conduct a capacity and training needs assessment for women and men from target coastal communities (including for seasonally-employed turtle beach patrollers, to identify opportunities to improve their off-season livelihoods and therefore the value and security of being a turtle patrol professional). Based upon this assessment, develop tailored training plans for target groups across a variety of sectors (including nature-based tourism service providers and sustainable fisheries).**

As previously reported, in the first two years of the project, capacity and training needs assessments were conducted and training plans were developed and/or refined for five key groups of target beneficiaries from coastal communities: women weavers (two groups); tourism/honey cooperative (one cooperative); tourism guides (one group); fishers providing boat transportation services (one group); artisanal fishing cooperatives (six cooperatives).

In Y3, the project team developed a second phase of the training plan for the less experienced *Weaving for Nature* women's cooperative at El Tintal, which included actions to strengthen the group's leadership and conflict resolution abilities, marketing and skills development.

In addition, in June 2019, we facilitated a workshop with nine members of the Chacocente Community Tourism/Honey Cooperative to complete the SWOC analysis initiated in Y2 and develop their plans to build their honey production capacity, through analysis of national demand for their organic forest-friendly premium honey and development of market linkages (see Annex 4G).

**Activity 3.2 Provide tailored technical skills training and SME development support to assist community groups to establish or improve enterprise, employment and service provision opportunities related to coastal tourism, especially those benefitting women and vulnerable groups. Target groups include; women weavers using waste plastic bags as raw material, tourism guides, honey producers who also receive tourists, a cooperative operating a turtle hatchery. Areas of training and support include; hospitality and visitor services, catering, guiding, product innovation/improvement (including development of trails and circuits, handicrafts) use of the Chacocente Visitor Centre, cooperative establishment, business plan development, financial management, marketing.**

The collapse in tourism sector across Nicaragua (as described in Activity 1.6 and elsewhere) has severely affected coastal tourism and coastal communities, who faced considerable vulnerabilities and uncertainty even before 2018. Through this project we are working with target community groups to support them to build resilient livelihoods and increase their wellbeing. A focus of our approach has been to build their social capital, for example in terms of good governance and strengthened networks of support, to improve their ability to adapt to the current context and respond to future opportunities.

During Y3 the project has continued to provide skills training and SME development support for the following key target beneficiary groups:

*Weaving for Nature women's cooperative, El Tintal* (near EPR): The project's Specialist in Community Livelihoods has provided ongoing support to this group of women weavers (18 members from 3 communities), which was established much more recently than the group at Astillero, near Chacocente. This group therefore requires much greater technical and organisational support - for the majority of these women, both the weaving skills and being part of an organised group are new. As well as training in four new weaving techniques, the project this year supported the group to: (i) design a realistic and robust pricing structure for their products; (ii) strengthen their leadership, conflict resolution skills and accounting processes; (iii) attend their first trade fair (*Feria de Salud del Ambiente*) at which they distributed cards and leaflets illustrating their products; and (iv) design a market survey (four training workshops in total). All 18 women of the group also took part in a beach cleaning event, organised in coordination with MARENA, at Padre Ramos.

*Chacocente Community Tourism/Honey Cooperative*: Formed in 2008 through a merger of two smaller cooperatives, this cooperative is currently active and strong, with a number of younger members of the community elected to the Board in 2018 (33 members in total). In Y3, FFI has been supporting the Cooperative to strengthen their capacity to produce and market organic forest-friendly honey. The project supported a valuable exchange visit with COOSMABO, a forest-friendly honey producing cooperative from the island of Ometepe, with whom FFI is also working. The two groups shared experiences and we facilitated discussion of the risks and benefits of increasing production, how to analyse local and national demand and adapt their products for different

markets (especially in the light of significant fluctuations in the honey harvest). The project supported the cooperative to analyse and invest in its priorities for production, as well as to assess the viability of investment in additional beehives and associated equipment.

*Tourism service providers in EPR:* FFI began working in Y2 with the small group of fishers providing boat transportation services in EPR, to help them develop their plans for the provision of different services and trips (for tourists, conservation/research teams and local people) and to work together to maintain their boats. In Y3, the project has supported this group to address identified training and resource needs, ranging from basic equipment (life-jackets, anchors) to improving their skills in communicating with and attending to tourists. As described in Activity 1.5, the group also received recommendations from the UNAN-Managua student group on a plan to improve boat tours through EPR's mangroves and nesting areas and associated guiding services.

***Activity 3.3 Support development of a volunteer-tourism enterprise at EPR, in line with a business plan which ensure a strong community role in decision-making, service provision and economic benefits.***

The volunteer tourism initiative at the 'Casa Carey' in EPR was established pre-project as a platform for the financial sustainability of hawksbill conservation programs at this site. Between 2017 and early 2019, FFI worked with nascent social enterprise, SOS Nicaragua, to develop the voluntourism initiative and help strengthen community engagement in the initiative as local service providers. However, the collapse in tourism across Nicaragua in the wake of the 2018 unrest and resulting political instability significantly impacted SOS Nicaragua's business model. Despite helping SOS Nicaragua to update its financial projections and plans to mitigate overall revenue loss, significant challenges remained due to both financial constraints and political sensitivities. At the start of Y3, the decision was taken to suspend the initiative for the 2019 season and SOS Nicaragua ceased operating in EPR. In the light of the impact of COVID-19 on travel and tourism, the initiative will remain suspended for the 2020 season.

Nevertheless, FFI believes that voluntourism at this site still has the potential to generate significant community and conservation benefits in the future. We have considered alternative management options for the future of this initiative, when tourism recovers. Accordingly, as described in Activity 1.5, one of the studies undertaken by the students of Sustainable Tourism from UNAN-Managua generated recommendations for developing the potential of the volunteer tourism facilities at the 'Casa Carey'. This process created a valuable opportunity for FFI and local community stakeholders to reflect on the lessons learned, the local community capacity that now exists to support the initiative, and the networks (especially with national tour operators) and investment necessary to develop the initiative as a viable enterprise as tourism recovers.

***Activity 3.4 Through partnership with Fundación LIDER, provide tailored technical skills training and SME development support to assist community groups to establish or improve enterprise, employment and livelihood opportunities related to sustainable fisheries, especially those benefitting women and vulnerable groups.***

The project is working to transform livelihood dependencies in EPR away from the illegal harvesting of marine turtle eggs and the use of destructive fishing practices, toward resilient livelihoods compatible with conservation and which increase wellbeing. FFI's broader research programme confirms that the estuary and its tributaries provide an important year-round nursery ground for juvenile hawksbill turtles. By facilitating cockle collectors and fishers to form co-operatives and secure concession licences to sustainably cultivate mangrove cockles and red snapper, these groups are motivated to protect the surrounding mangrove and estuarine habitats.

***Cooperative development and capacity building***

Through FFI's partnership with Fundación LIDER, the project is working to build social capital - in terms of strengthened organisation, governance and networks - for nine community cooperatives linked to artisanal fishing, sustainable mangrove cockle collection and snapper cultivation in the EPR estuary (119 beneficiaries, 52 women and 67 men):

- *Cooperativa Pesquera Abraham Moreno R.L. (COOPAM)*: 17 members (8 women, 9 men) from the community of Venecia, who are all engaged in artisanal fishing and/or supporting the conservation of marine turtles through FFI's EPR hawksbill conservation project.
- *Cooperativa Pesquera Agradecidos con Dios R.L. (COOPADI)*: 12 members (1 woman, 11 men) from the community of Padre Ramos, who are mainly engaged in artisanal fishing and/or supporting the conservation of marine turtles through FFI's EPR hawksbill conservation project.
- *Cooperativa de Pescadores y Concheros Artesanales Luz del Mar del Tintal R.L. (COOPALMAR)*: 12 members (5 women, 7 men) from the community of El Tintal.
- *Cooperativa Amigos de Pescadores y Concheros Poza de la Vaca R.L. (CCOPEVA)*: 15 members (5 women, 10 men) from the community of Poza de la Vaca, who are mainly engaged in harvesting mangrove cockles.
- *Cooperativa de Pescadores y Concheros Artesanales Marcelino Méndez R.L. (COMENDEZ)*: 13 members (10 women, 3 men) engaged in both snapper cultivation and managing a mangrove cockle concession.
- *Cooperativa de Pescadores y Concheros Artesanales Gregorio López R.L. (COLOPEZ)*: 18 members (8 women, 10 men) engaged in both snapper cultivation and managing a mangrove cockle concession.
- *Cooperativa Pescadores Artesanales Hombres y Mujeres Esforzados R.L. (COEsforzados)*: 11 members (5 women, 6 men) engaged in snapper cultivation.
- *Cooperativa de Pesca Artesanal y Servicios Múltiples Valle de Roca R.L. (CORoca)* 11 members (8 women, 3 men) engaged in snapper cultivation.
- *Cooperativa Pesquera la Limonera R.L. (COLimonera)*: 10 members (2 women, 8 men) focused on the production of high protein fish food pellets.

During Y3, the project has continued to support processes to strengthen the organisational capacity of these cooperatives (see Annex 4H). Fundacion LIDER's focus on empowering female leadership within the cooperatives is generating results, with strong participation of women in decision making processes. Following a workshop facilitated by FFI to evaluate progress and identify training needs (28 participants across all nine cooperatives), we have worked with LIDER to develop training resources and support to address priority needs. As part of this process, Fundacion LIDER has supported the legalisation process for the new *Cooperativa Pesquera la Limonera R.L.* – including drafting and submission of its constitutional statutes - in coordination with the Ministry for Family, Community, Cooperative and Associative Economy (MEFCCA).

Progress in carrying out livelihood activities with the target community groups follows (see also Fundacion LIDER's annual report and sources of verification in Annex 4H):

***Activity 3.4a Assist at least four community groups in EPR to establish concessions for custodianship of mangroves and sustainable collection and cultivation of mangrove cockle (Anadara similis), following a model already proven in Chinandega District, thereby protecting juvenile and adult hawksbill habitat and providing income. Support the cooperatives to set up a plant for processing and purifying cockles, which adds substantial value.***

Collection of mangrove cockles in EPR is a family activity involving both women and men, year-round. In Y1 and Y2, with appropriate technical and logistical support from Fundación LIDER, five cooperatives were awarded concession licences by the relevant authorities (MARENA and INPESCA) for the co-management of mangrove areas in EPR and the cultivation and sustainable harvesting of mangrove cockles in these sites (COOPALMAR, COOPEVA, COOPAM, COMENDEZ and COLOPEZ). In total, the concessions cover 43.2 hectares of mangroves within the Padre Ramos estuary and the corresponding permits and commercial licences allow for the production of up to 12,000 cockles per year, for each cooperative. In Y3, LIDER has continued to support the cooperatives to mark the limits of concession areas through the installation of a total of 23 signs (designed in line with MARENA regulations for signage within protected areas).

Through the project, Fundación LIDER has supported the cooperatives in mangrove reforestation efforts in EPR, propagating red mangrove seeds collected from large mangrove areas of the nearby Reserva Delta Estero Real. This has continued in Y3, with 35 people (17 women, 18 men) from four of the fisher cooperatives (COOPAM, COOPALMAR, COOPADI and COMENDEZ) taking part in coordination with MARENA. A total of 55,000 seedlings were planted at 12 sites across four mangrove areas identified as priorities for reforestation – in line with MARENA's vulnerability map and confirmed as UNAN-León as having favourable water conditions.

***Activity 3.4b Assist at least one community group in EPR to establish a snapper rearing facility, with attention to both ecological and social costs and benefits, and conduct monitoring as per environmental permits. This follows a model already proven in the EPR and will provide income to individuals who have changed from destructive practices (former egg poachers and blast fishers).***

In collaboration with Fundación LIDER, and alongside support from MARENA and INPESCA, the project is engaging with seven cooperatives\* in the rearing of snapper in floating cages (\*COOPAM, COOPADI, COOPALMAR, COMENDEZ, COLOPEZ, COEsforzados and CORoca - four of these cooperatives are also engaged in cultivation and harvesting of cockles). In Y3, Fundación LIDER has continued to support the cooperatives throughout the productive cycle. Together, we have been working to address identified challenges linked to the production cycle for snapper, specifically with regards to procurement of fingerlings, production of high-protein fish-food, water quality monitoring, and marketing.

*Technical training for cooperative members:* Through the project, Fundación LIDER has developed a series of theoretical and practical training modules covering the key steps in snapper fisheries management and processes to enable the cooperative production units to function effectively. Training has been designed to be shared fisher-to-fisher and LIDER has supported the creation of a network of 'promoters' from the cooperatives with the capacity to share their knowledge. New members who join the cooperatives are priorities for training sessions. Technical training delivered in Y3 by Fundación LIDER included: a workshop for members of COLimonera and others on the artisanal production of high protein fish-food (November 2019, 31 participants; 12 women, 19 men); a workshop on the theory of snapper cultivation (December 2019, 40 participants; 9 women, 31 men); a workshop on the practical aspects of snapper cultivation, including construction of floating cages (March 2020, 40 participants; 7 women, 33 men).

*Production of fingerlings:* The facility at the Marine Studies Laboratory in UNAN-León for the production of snapper fingerlings remains closed (since 2018). Accordingly, during both the 2018 and 2019 productive cycles, the cooperatives sourced juvenile snapper from sites outside the estuary to grow on in the floating cages. At an average cost of C\$4 or U\$0.12 per fingerling/juvenile this is a costly solution for the cooperatives and raises questions of ecological sustainability. FFI and LIDER continue to closely monitor this situation. We are supporting the cooperatives to trial approaches to increase wild snapper populations in the estuary and coastal areas, through the release of 5% of 7cm fingerlings into the estuary and by improving spawning by holding schools of captive breeding males (20-50 males at 7 sites).

*Snapper rearing:* Across the seven cooperatives, a total of 21 ~112.5m<sup>3</sup> snapper rearing cages were in operation for the 2019 season. Cooperative members took it in turn to look after the cages 24 hours/day throughout the productive cycle to feed the fish, ensure the cages are clean and to prevent theft. Both men and women guard the cages, although women tend to guard in pairs whereas men do it individually, with women reporting childcare as an issue for them as children are not permitted on the floating cages due to the danger of strong currents. The fish are fattened until they pass the minimum legal weight and reach commercial size (1lb 2oz). LIDER is supporting the cooperatives to keep production and marketing records to enable them to track the investments and income generated throughout the productive cycle. During the 2019 productive cycle, the seven cooperatives produced a total of 82,583 snapper, with a value of ~\$74,000 USD (varying between 7,200 and 18,088 snapper produced by each cooperative), representing a 6% increase on total production in 2018.

*Production of fish-food:* The local production of balanced, protein-rich fish-food, using waste from nearby commercial shrimp farms located on the edge of the EPR protected area (i.e. shrimp-heads, which would otherwise be discarded into the estuary), was identified as a need and an opportunity in Y2. In Y3, Fundación LIDER supported the new cooperative COLimonera to secure the necessary permits from MARENA and facilitated the construction of the processing plant. COLimonera aims to have the capacity to process up to 30,000 kg / month of shrimp head, which are ground into 'flour' then made into

pellets for sale to the other cooperatives for snapper fattening. Fundacion LIDER and COLimonera have received assistance from Nicaragua's Centro de Produccion mas Limpia (an initiative of the United Nations Industrial Development Organization) and other donors to ensure that the processing plant optimises use of resources and clean energy (e.g. using solar panels, biodigestors, water catchment and recycling). The project has also supported COLimonera to develop an administrative procedures manual (to enable it to establish and operationalise its governance and administrative processes) and an operations manual (to facilitate monitoring of both production quality and environmental efficiency). At the end of Y3, production was successfully piloted at 25% capacity, with full production scheduled to begin in May 2020.

*Monitoring of water quality:* In collaboration with UNAN-León and Fundacion LIDER, monitoring of a suite of water quality parameters (phytoplanktonic dynamics and their relationship with the physicochemical parameters at eight sites across EPR) has been conducted throughout the project. The analysis of monitoring data has led to a series of five practical recommendations regarding the installation and management of the snapper rearing cages (see Section 4.5 of LIDER's report in Annex 4H); these recommendations are enabling the cooperatives to better manage their production units. In Y3, MARENA - who is promoting mariculture at EPR and other sites along the Pacific of Nicaragua - formed a commission to oversee aquatic monitoring in EPR. The commission brings together representatives from MARENA, INPESCA, the municipal authorities, UNAN-León, LIDER and leaders of the fisher cooperatives and has been meeting monthly to share results obtained from water samples, discuss optimal environmental conditions and inform management decisions regarding the siting and carrying capacity of snapper cages, the coordination of cultivation cycles with cycles of tides and dissolved oxygen concentrations, etc. This body of work is serving to ensure that the concentration of snapper in the floating cages are not negatively impacting water quality conditions and are kept within optimal ranges for both aquaculture and biodiversity.

*Marketing:* Market demand for snapper is high. To date, buyers have purchased directly from the cooperatives, mainly for the local and national market. Through the project, FFI and Fundacion LIDER are supporting the fisher cooperatives to strengthen their capacity to access fair markets and negotiate fair prices for their products. In Y3, the project has supported in depth national/export market research (see Activity 3.4c), as well as participatory market mapping (Activity 3.5). Following these processes, representatives from the fisher cooperatives have worked with FFI and LIDER: i) to build their capacity to engage in Participatory Market Systems processes as a market actor (1 day workshop, October 2019, 28 participants; 10 women, 18 men); ii) to identify the cooperatives' current challenges in accessing fair markets (1 day meeting, December 2019, 16 participants; 6 women, 10 men); and iii) to evaluate their training needs and define training plans in relation to the commercialisation of products (1 day workshop, January 2020, 23 participants; 8 women, 15 men). These processes combined have helped the cooperatives to develop their business plans, informing the development of a short- and medium-term action plan for strengthening commercialisation (Annex 4I).

***Activity 3.4c Support fishers from four communities who have committed to responsible fishing practices and are championing locally the elimination of blast fishing and other illegal practices harmful to turtles. Areas of training and support include; improved fish handling and storage, negotiation skills, access to higher value markets, promotion to hotels based on commitment to conservation, business plan development.***

Between April and June 2019, a multidisciplinary team of consultants worked with the project team and responsible fishers from Chinandega, to undertake market research for three sustainably caught/produced products: snapper, octopus and lobster. The initial feasibility analysis indicated that there may be potential for the cooperatives from EPR to feed into the snapper export market to El Salvador, with higher prices paid for high quality product at an increased size (1lb 11oz or above). The full study evaluated supply, demand and markets for fish caught using different methods, including premiums for sustainably caught fish. It analysed different trade routes and marketplaces, relevant national and international legislation, as well as opportunities for using digital technology to link directly with markets. The full study found that the profit margins obtained through selling to Nicaraguan markets for all three products would be comparable to those obtained exporting internationally (see Annex 4J). In June 2019, specific recommendations were presented and discussed with fishers and project partners, including Fundación LIDER and INPESCA, who have been directly supporting the fisher cooperatives to explore these markets. This information also fed into the Participatory Market Systems Development under Activity 3.5.

In parallel, FFI is also supporting co-financed work to inform and engage artisanal fishers, from fleets at Astillero (near Chacocente) and those near the Padre Ramos and Aserradores estuaries, to strengthen their understanding of fisheries legislation and the Code of Conduct for Responsible Fishing, improve fisheries management to reduce turtle bycatch and promote responsible fishing practices.

***Activity 3.5 Support the development of linkages and equitable relationships that deliver livelihood benefits for coastal communities, through the facilitation of dialogue between target community groups and businesses to identify opportunities and barriers to cooperation. Support participatory development of market systems to strengthen market linkages for groups from two sectors; nature-based coastal tourism service providers and fishers who have committed to responsible fishing practices from the northern Pacific of Nicaragua.***

As previously reported, in Y2 the project's PMSD Specialist facilitated a market systems selection process across both nature-based tourism and sustainable fisheries sectors, identifying the areas where this approach would strengthen market linkages and economic benefits for target groups. In the light of the downturn in the tourism sector, the project has focused on using this PMSD approach to improve fisheries-related livelihoods strategies, strengthening the incentives for coastal communities to manage their fisheries sustainably and commit to wider marine conservation.

In Y3, the project's PMSD specialist facilitated a participatory market mapping and action planning workshop, focussed on the market for snapper in Chinandega (1 day workshop, July 2019, 23 participants; 9 women, 14 men). The workshop brought together market actors (input suppliers and traders), members of the EPR fisher cooperatives, relevant state decision makers (from INPESCA and MEFCCA), and specialists from Fundacion LIDER, UNAN Leon and FFI. The participants mapped out the current and ideal market system for snapper, clarified roles of each actor, and identified targeted interventions to generate desired systemic changes (see Annex 4K). Representatives from the fisher cooperatives have since come together to further develop their business plans, using the Business Model Canvas framework, evaluate their training needs and define training plans.

Through these processes we are strengthening the links between our support to cooperatives engaged in project-promoted mariculture and their commitments to sustainable fisheries and biodiversity conservation, supporting targeted interventions for coastal community stakeholders that can generate systemic change.

#### Output 4. Protection status of one critical area of turtle habitat enhanced

***Activity 4.1 Seek legal counsel to analyse the viability of alternative legal instruments for securing the property at Punta Venecia for conservation. Convene meetings with the private 'landowner' (legally it is a lease from the municipality, as this is coastal property) to discuss the options and review alternative contractual arrangements, together with the municipal authorities and the local Hawksbill Committee as appropriate. Negotiate a multi-party agreement to ensure long-term security of this critically important habitat, while providing satisfactory outcomes for the landowner, the neighbouring EPR communities and the municipality.***

Following the reopening of negotiations with the landowner at Punta Venecia in March 2019, the project team convened a meeting between the municipal authorities of El Viejo, FFI, the landowner and our lawyers in April 2019. At this meeting it was agreed that the option of legally passing the land concession to FFI is not appropriate in the current political context. Therefore the best legal framework is a bilateral usufruct contract between the landowner and FFI, which legally gives FFI the right to use and decide how to use the land for a period of 59 years. The usufruct contract was drafted by our Nicaraguan lawyers (both FFI's and the landowner's), with use of the land restricted to conservation and research, and reviewed by FFI's legal team in the UK. FFI's new National Director renewed contact with the landowner in Q4 and the final draft, reviewed by both parties, is ready for signature.

***Activity 4.2 Invest in those elements of the agreement package which align with the central themes of this project, including building local capacity for the management of an upgraded centre for conservation and volunteer tourism, hiring legal services for drafting agreements, and providing support for enterprise development necessary to implement the agreement.***

Progress relevant to this Activity is described under Activities 1.5, 3.2 and 3.3.

## 3.2 Progress towards project Outputs

All project indicators were reviewed during the logframe revision process which took place during Y2. However, in the light of both the national and global context for this project, the Project Steering Committee have been reviewing in detail the logframe and FFI will be submitting suggested logframe revisions to the Darwin Secretariat following submission of this report.

### **Output 1. Policies, plans, marketing and practice of tourism and associated coastal development are informed by an economic valuation of turtles as a tourism asset and increased knowledge about their conservation.**

- *Baseline condition:* Fast growing tourism sector in Nicaragua, with hotel construction threatening coastal habitat and value of marine turtles as a tourism asset in Nicaragua not widely recognised.
- *Current condition and sources of evidence for change:* Tourism industry focused on promoting '[Resilient Tourism](#)' and strengthening its ability to adapt to current context for tourism in Nicaragua, climate change and other risks. Report on economic values of Nicaragua's Pacific coast turtles completed (as evidenced by valuation report, Annex 4A). Associated communications plan to disseminate key messages regarding the economic value of living turtles is in preparation, aligning with FFI's inter-institutional workplans agreed with central government.
- *Likelihood of achieving Output:* The project's ability to influence policies, plans, marketing and practice of tourism and associated coastal development has been compromised by the political instability since 2018 and the associated collapse in the tourism sector. Whilst, key messages regarding the economic value of living turtles will be disseminated to and received by decision makers (including INTUR) and industry bodies (CANATUR), the Project Steering Committee propose that indicators and targets under this Output are amended to reflect external realities (*Logframe revision Change Request to follow submission of this report*).

*Indicator 1.1 No. of tourism and coastal development policies, plans and strategic decisions which refer to the economic value of living turtles and demonstrate knowledge of best practices for conservation and community benefit (target: at least 5 by End of Project 'EOP').*

- Report on economic values of Nicaragua's Pacific coast turtles completed (Annex 4A). Associated communications plan in preparation. Sharp contraction in Nicaragua's tourism industry in means that it is currently a difficult context in which to influence the sector's codes of practice, marketing strategies, recovery plans and strategic decisions – these are currently focused on increasing resilience of tourism enterprises.

*Indicator 1.2 % of CANATUR members who have expanded coverage of community-based turtle tourism initiatives in their national and international marketing of Nicaragua (target: 5% by March 2020; 10% by EOP).*

- Of the >100 members of CANATUR (82 direct tourism business partners, 12 tourism associations and 17 territorial chapters that promote the small and medium-sized entrepreneurs that make up their large social enterprise base), 3% were marketing turtle tourism products at project baseline. Survey of CANATUR members to evaluate current and potential turtle-related tourism marketing was not possible in Y3 – the sector is focused on adapting to current context for tourism in Nicaragua. Impact of external context on achievement of targets under this indicator is high.

*Indicator 1.3 No. of community-based turtle tourism initiatives being marketed nationally or internationally by CANATUR members (target: 5 by March 2020, 12 by EOP).*

- At baseline, one community-based turtle tourism initiative in Nicaragua was being marketed at a national and international level. Survey of CANATUR members to assess change in this measure was not possible in Y3 - the sector is focused on adapting to current context for tourism in Nicaragua. Impact of external context on achievement of targets under this indicator is high.

**Output 2. Nicaragua's technical capacity relevant to turtles, hatchery management, coastal/marine ecosystems and low impact coastal development practices is increased, through training in these disciplines and strengthening of national and regional networks.**

- *Baseline condition:* Nicaragua had small pool of relevant scientists, technicians and professionals, with limited opportunities to exchange information/experiences with their peers.
- *Current condition and sources of evidence for change:* 55 students (64% female) from four national universities have increased knowledge and skills in relevant topics, with 44 of these students having completed fieldwork projects (as evidenced by fieldwork reports and participation records, e.g. Annex 4B). 1,200 people are better informed about Nicaragua's marine biodiversity, having visited the Nicaragua Azul museum (as evidenced by visitation records). Seven organisations have participated in the design of best practice guideline for management of turtle hatcheries in Nicaragua and guidance document produced (as evidenced by guidance document and workshop minutes, Annex 4F). 32 turtle conservation actors in Nicaragua in regular communication and sharing information via the active 'Tortugeros Nicaragua' Whatsapp group (as evidenced by meta-data from group chat).
- *Likelihood of achieving Output:* Likely to achieve Output. However, the Project Steering Committee propose to amend indicators 2.2 and 2.4 and associated targets under this Output to reflect external realities (*Logframe revision Change Request to follow submission of this report*).

*Indicator 2.1 No. of graduates/undergraduates who complete fieldwork research projects in coastal areas (target 24 students; 6 per year x four years, at least 40% women).*

- To date, 44 students (66% female) have completed placements and/or fieldwork projects in relevant topics (e.g. Annex 4B): six students in Y1 (all graduates, 67% female); four students in Y2, (two graduates, two undergraduates; 50% female) 26 students in Y3 (all undergraduates; 69% female). We have evidence that these placements are increasing national capacity for turtle conservation, through tracking of post-internship professional development (50% of 14 students are employed or continuing their studies in a related field) and related qualitative evidence of the value of students' experiences (quotes include: "My internship with FFI was the launch-point for my career" A.S., "My placement was deeply motivating" C.G.).

*Indicator 2.2 No. of people (tourism professionals, community based tourism service providers, coastal municipal staff, sustainable tourism students, conservation professionals) complete coastal community-based ecotourism module (target 45 people; 15 per year x three years, at least 40% women).*

- Eight students completed first iteration of community-based coastal tourism module in Y1 (62.5% female). 1,200 people are better informed about Nicaragua's marine biodiversity having visited to Nicaragua Azul museum. Resource workbook, compiling relevant theory, case studies and linked to further reading completed in Y3. Impact of external context on achievement of targets under this indicator is high; roll out of training in Y2 and Y3 has not been possible and the external context is unlikely to become more favourable within remaining project timeframe.

*Indicator 2.3 No. of turtle hatchery/tourism initiatives implementing best practice guidelines (target 12 by Sept 2019)*

- National best-practice hatchery management guidelines produced (Y3; Annex 4F) following scientific research study into alternative incubation techniques (Y1&2) and participatory process involving seven stakeholder organisations (Y3, Annex 4F). Coastal sites (n=29) for uptake of best practice guidelines have been identified and characterised, and virtual training workshops designed for dissemination of guidance. Target achievable by EOP.

*Indicator 2.4 NTCN has a clear strategy, its members have increased access to relevant guidance and information, are in regular communication with peers regionally and nationally, and collaborate on issues as relevant (by EOP).*

- ‘*Tortugueros Nicaragua*’ WhatsApp group operating as an effective national platform for promoting information sharing and collective action amongst NTCN members and other stakeholders engaged in turtle conservation in Nicaragua. Impact of external context on NCTN Board structure and function means that project will not achieve target to update NTCN strategy.

*Indicator 2.5 No. of people (professionals, service providers, authorities, students) integrating learning from national and regional experience and using knowledge gained into Nicaraguan initiatives (target 32 by EOP)*

- To be measured at EOP.

**Output 3. Female and male community members adjacent to turtle nesting beaches have the skills and opportunities to engage in sustainable livelihoods.**

- *Baseline condition:* Livelihood strategies amongst poor coastal communities were inadequate, unsustainable and vulnerable to disasters. Household-level socio-economic baseline data from 260 households across 21 Pacific coastal communities (800 inhabitants, 47% female) confirmed poverty indicators, such as household food shortages are highly prevalent in up to 44% of households. Few coastal people perceived turtles as a valuable living asset of which they are beneficiaries and custodians. Coastal tourism development often marginalised adjacent communities. Female and male community members adjacent to turtle nesting beaches lack the skills and opportunities to engage in sustainable livelihoods.
- *Current condition and sources of evidence for change:* 251 community members (104 women and 147 men) have strengthened knowledge or skills for resilient livelihood strategies compatible with conservation having received technical training or support in SME development or employment (as evidenced by records of community meetings and training events, see Annexes 4G to 4K). As a result, four community groups providing touristic services and nine community cooperatives linked to responsible fishing have improved organisational capacities and strengthened business models (e.g. as evidenced by action plan and market mapping in Annex 4I and 4K).
- *Likelihood of achieving Output:* Likely to achieve Output.

*Indicator 3.1 No. of community members trained in relevant technical skills and provided with support for SME development or employment (target: 180 by March 2019; 360 at EOP; 60% women). Target groups/enterprises include: Tourism service providers (mostly female) - guiding, hatchery visits, catering, accommodation, weaving/handicrafts, honey. Seasonally employed turtle beach patrollers seeking skills for their off-season livelihoods (mostly male). Fishers (mostly male), cockle harvesters and processors (mostly female), snapper rearing group.*

- A total of 251 community members (104 women and 147 men) have received technical training or support in SME development or employment: Women weavers (47 women); Turtle beach patrollers (46 men); Chacocente Tourism/Honey Cooperative (16 women, 17 men); EPR tourism services providers (3 male boatmen, 3 female cooks, 7 male guides); Members of EPR community cooperatives engaged in cockle/snapper cultivation (38 women, 49 men); Fishers from Aserradores (25 men).

*Indicator 3.2 No. of sustainable fisheries and community based tourism enterprises with robust business models (target: 6 by Sept 2019; 12 by EOP).*

The following 13 community cooperatives and groups have robust business models;

- *Chacocente Tourism/Honey Cooperative:* This cooperative has stronger governance mechanisms, including strengthened Board of Directors with clearer division of roles and responsibilities. It has reviewed and updated its strategy to develop business relationships, with a focus on an action plan for improving honey production, market linkages and agreements for a fairer distribution of enterprise income amongst cooperative members.

- *Weaving for Nature enterprises*: Astillero group's business model now includes a strategy for improvements in product quality and innovation and a marketing and sales plan. El Tintal group's business model is less developed, but draws upon that of the more experienced group and includes compliance with the Code of Conduct for Responsible Artisans, as well as marketing and skills development.
- *Tourism service providers in EPR*: Small group of fishers providing boat transportation services in EPR has improved plans for provision of services, including service rotas and coordination for maintenance of equipment.
- *EPR Fisher cooperatives*: Governance structures and business models for nine cooperatives engaged in cockle cultivation, snapper rearing and production of high-protein fish-food have built upon economic feasibility studies (conducted in Y1) and policies for equitable benefit sharing and promoting greater engagement of women (developed in Y2).

**Output 4. One critical area of turtle habitat obtains enhanced protection status, through appropriate legally binding agreements.**

- *Baseline condition*: Site under private ownership.
- *Current condition and sources of evidence for change*: As described under Indicator 4.1 below.
- *Likelihood of achieving Output*: Whilst it has taken longer than envisaged to sign the agreement to ensure the long-term security of this critically important habitat, our dialogue with the landowner and municipal authorities indicate that it is still likely that this Output can be achieved.

*Indicator 4.1 Area of priority habitat at Punta Venecia in EPR Natural Reserve, with enhanced protection. (0.9km of hawksbill nesting beach; 28 hectares of coastal and riparian dry forest)*

- Viability analysis of alternative legal instruments for securing the property for conservation under Nicaraguan law completed in Y1. Bilateral usufruct contract restricting use of site to conservation and research drafted, agreed between parties and pending signature (Y3).

*Indicator 4.2 Plan for implementation of the agreement endorsed by the Municipality, with fund-raising under way if needed.*

- Evidence of progress relevant to this indicator is demonstrated above under Output 3.

### **3.3 Progress towards the project Outcome**

*Measuring intended Outcome*: Project indicators were reviewed during the logframe revision process which took place during Y2. The Project Steering Committee have repeated this process, in light of the current national and global context for the project. Whilst we consider the indicators below to be adequate for measuring the intended Outcome, we highlight expected challenges in isolating measurement of the impacts of project interventions from those of project externalities linked to both the national socio-economic crisis and COVID-19 pandemic.

*Likelihood of achieving Outcome*: Whilst the external context has had a particular impact on Indicator 0.5, which may no longer be achievable within the project timeframe, we believe the project is still likely to have made significant advances to achieve the overall Outcome by the end of the project.

**Outcome: The economic and conservation values of Nicaragua's globally important marine turtles are recognised locally and nationally, providing benefits to coastal communities and decreasing threats to these species and priority habitats.**

**Indicator 0.1:** No. of decision makers, including those who lead the National Development Plan process, who have access to information relating to values of marine turtles and their habitats (target: 20 by End of Project).

- **Baseline condition:** FFI shares annual technical reports (including data from turtle nesting beaches) with government authorities, including MARENA and municipal authorities. But decision makers are without access to information relating to values of marine turtles and their habitats in Nicaragua.
- **Current condition and sources of evidence for change:** Information relating to values of marine turtles compiled in report entitled “*Valoración Económica de las Tortugas Marinas del Pacífico de Nicaragua*” (as evidenced by valuation report, Annex 4A). FFI seeks to engage decision makers in project activities and events wherever possible and appropriate. Official government publications on the environment include mention of marine biodiversity and marine turtles (see MARENA’s [2019 Bulletin on Community and the Environment](#), p32-33), but do not yet expand upon on the economic and conservation values of marine turtles. Recent improvements in communications and relations with government authorities (as evidenced by mutually-agreed annual workplans with six government ministries) opens up new opportunities for dissemination of key messages regarding the value of living turtles amongst decision makers in final year of project.

**Indicator 0.2:** % of women and men from 10 target coastal communities who report an improved ability to meet essential household needs year round (target dependent upon community: 10-20% by EOP).

- **Baseline condition:** At project baseline, 89% of 260 households surveyed across 21 coastal communities (representing 800 householders, 47% female), report income below the cost of the ‘*canasta básica*’ - an official national indicator that computes the minimum income to buy enough food and cover minimum household expenses for a family of four.
- **Current condition and sources of evidence for change:** Project impact will be measured at EOP through post-project socio-economic surveying of both beneficiary and non-beneficiary households. However we anticipate that it will be highly challenging to isolate measurement of the impact of project interventions on household economies from the impact of project externalities (national socio-economic crisis and COVID-19 pandemic) – see notes under Assumption O.2.

**Indicator 0.3:** % increase in number of women and men from 10 target coastal communities who consider live turtles to be a valuable asset compared to baseline (target: 15% by EOP).

- **Baseline condition:** At project baseline, the majority of 460 coastal community members surveyed across 21 communities, reported that whilst they understand the economic potential of non-extractive use of turtles, they feel unable to benefit from such non-extractive values of turtles. For example, 85% of people from these coastal communities derive no significant income from tourism. Of those who do not engage in the illegal extraction of turtle eggs, only 2% do not because tourism linked to turtles is a better livelihood, 14% expressed conservation or moral concerns, whilst 56% do not engage in illegal extraction because it is hard work, with antisocial hours, and/or they do not see it as profitable.
- **Current condition and sources of evidence for change:** Project impact will be measured at EOP through post-project perceptions surveying of both beneficiary and non-beneficiary households.

**Indicator 0.4:** Km. of nesting beaches with enhanced protection of marine turtle nests (baseline: 30km; target: 40km by EOP).

- **Baseline condition:** At project baseline 32.5km of nesting beach for hawksbill, leatherback and green turtles were protected along the Pacific coast of Nicaragua.
- **Current condition and sources of evidence for change:** In Y2, 43km of nesting beach were protected, due to enhanced protection of the community-run ecotourism and conservation project at Isla Juan Venado (as evidenced by annual nesting beach reports). In Y3, 16.5km of hawksbill nesting beach were protected according to established protocols, but government permits were not issued for protection of 26km of leatherback nesting beach during 2019/20 nesting season (community teams continued basic leatherback monitoring, providing insights into impact of reduced protection on nesting and hatching

success). We expect all necessary permits to be issued in Y4 and to therefore meet/exceed the proposed target at EOP, as additional tourism hatcheries come under enhanced protection.

**Indicator 0.5:** National tourism sector (agencies, industry bodies and operators - including INTUR and CANATUR) are using marine turtles as a flagship species for tourism in Nicaragua by EOP.

- *Baseline condition:* At project baseline, marine turtles were not being promoted by the national tourism sector as a flagship for tourism in Nicaragua.
- *Current condition and sources of evidence for change:* Due to the external context for tourism in Nicaragua, it has not been possible to conduct surveys planned for Y3 to provide the sector with improved information on current demand for turtle related tourism and identify potential improvements, alongside insights into the number of CANATUR members using turtles as a flagship species for tourism and/or marketing community-based turtle tourism initiatives. The Project Steering Committee propose to amend this indicator to reflect external realities (*Logframe revision Change Request to follow submission of this report*).

### 3.4 Monitoring of assumptions

All assumptions were reviewed during the logframe revision process which took place during Y2 and changes were made to reflect project scope and the external context at that time. However, significant national and global events (national socio-economic crisis and COVID-19 pandemic) have created critical conditions which challenge a number of the assumptions upon which the project was based, as described below. Accordingly, the Project Steering Committee are reviewing the project logframe and underlying assumptions, and FFI will be submitting suggested revisions to the Darwin Secretariat following submission of this report.

#### *Impact Level Assumptions*

**Assumption 1:** That the security situation in Nicaragua is sufficiently stable for FFI to maintain operations. *Comments: Assumption still holds true. Security situation is currently stable, although underlying tensions remain and could be exacerbated prior to elections scheduled for November 2021.*

**Assumption 2:** That proposed development of the Inter-Oceanic Canal will not adversely affect the receptivity of government and tourism sector leaders to information and recommendations emerging from the project. *Comments: Assumption still holds true. There have been no significant developments in the Nicaragua canal project during Y1 or Y2 of the project, and no public announcements made as to its future development. The canal project therefore looks highly unlikely to proceed in the short to medium term.*

**Assumption 3:** That adult populations of marine turtles in the Eastern Pacific region remain stable. *Comments: Assumption still holds true. FFI's broader marine turtle conservation programme on the Pacific coast of Nicaragua is working to stabilise threatened turtle populations; we work with a range of stakeholders to protect and monitor nesting beaches, reduce demand for turtle products, reduce fisheries bycatch of marine turtles, and build the long-term sustainability of turtle conservation actions.*

#### *Outcome Level Assumptions*

**Assumption O.1:** That decision makers, including those who lead the National Development Plan process, are willing to engage with us and that the Plan goes ahead. *Comments: Assumption still holds true. At end of Y3, government is open to engagement. However, no public announcements have been made regarding next phase of the National Human Development Plan, since the Plan's main themes were published by the government in December 2017.*

**Assumption O.2:** That there will be no major disruption to livelihoods in the project localities - through natural disasters, large-scale pollution, or national economic/social instability - and people are willing to report changes in their household income/status. *Comments: Assumption no longer holds true. The significant economic and social instability felt across Nicaragua since April 2018 has significantly affected project delivery, the tourism sector and the economic/social context for target communities. The global COVID-19 pandemic is now predicted to significantly exacerbate the situation for already vulnerable coastal communities and their livelihoods. Furthermore, we expect that it will be highly challenging to isolate measurement of the impact of project interventions on household economies from the impact of project externalities (national socio-economic crisis and COVID-19 pandemic).*

**Assumption O.3:** That no events take place to affect the current market system for turtle products that would cause an increase in demand. *Comments: Assumption still holds true. FFI and partners continue to compile information on surges in the illegal extraction of turtle eggs and corresponding spikes in demand, in response to decreased beach protection and/or increased reliance of rural communities on natural resource extraction due to economic downturns linked to national instability and COVID-19. Through a parallel project, funded by DEFRA's IWTCF, FFI is scaling up efforts to reduce demand for marine turtle products in Nicaragua through an innovative behaviour change campaign.*

**Assumption O.4:** That the majority of turtle hatchery/tourism initiatives adopt the guidelines developed by the project and share their data. *Comments: Assumption still holds true. FFI and partners have existing relationships with many of the hatchery/tourism initiatives identified and will work together to disseminate the guidelines and provide training and support to maximise their uptake.*

**Assumption O.5:** That Nicaragua's tourism industry will not be affected by extreme natural disaster or widespread economic/social instability. *Comments: Assumption no longer holds true. The tourism industry in Nicaragua collapsed by ~80% in the year following the outbreak of unrest across Nicaragua in April 2018, and tourism revenue is estimated to be more than 50% below 2017 levels. This collapse in the sector has affected the project's engagement with industry stakeholders throughout Y2 and Y3 of the project.*

**Assumption O.6:** That the positive relationships and attitudes of tourism agencies, industry bodies and operators towards turtle conservation will continue. *Comments: Assumption still holds true. In the medium- to long-term, the tourism sector in Nicaragua has the potential to exacerbate or improve the situation with respect to marine turtles, depending on policies and practices adopted as tourism recovers.*

#### *Output Level Assumptions*

**Assumption 1.1:** That the local and national tourism sector will remain open to integrating marine turtles into their activities and marketing. *Comments: Assumption partially holds true. The recent collapse in tourism in Nicaragua and the impact of COVID-19 represents an opportunity for reorientation towards a sustainable recovery of the sector compatible with conservation. However, the closure of many tourism enterprises has hampered efforts to engage with the sector in Y2 and Y3, and there is a risk that it will not be possible to have the influence originally envisaged during the remaining project timeframe.*

**Assumption 1.2:** That the valuation study will confirm scope for increased community-based turtle-related tourism. *Comments: Assumption still holds true.*

**Assumption 1.3:** That public awareness and support for marine turtle conservation is influenced by parallel initiatives (including awareness raising campaigns) led by FFI through our broader marine turtle conservation programme. *Comments: Assumption still holds true. Through a parallel project funded by DEFRA's IWTCF, FFI is scaling up efforts to reduce demand for marine turtle products in Nicaragua through an innovative behaviour change media campaigns and associated actions.*

**Assumption 2.1:** That tourism professionals see the potential benefits of community based ecotourism and attend training. *Comments: Assumption still holds true. The project has successfully engaged academics, students and community tourism service providers, however the external context has diverted existing industry professionals from engaging more strongly with project.*

**Assumption 2.2:** That the majority of the hatchery/tourism initiatives will be open to receiving technical support and the adoption of best practice guidelines, and will share the data they collect. *Comments: Assumption still holds true. FFI and partners have existing relationships with many of the hatchery/tourism initiatives identified and will work together to disseminate the guidelines and provide training and support to maximise their uptake.*

**Assumption 2.3:** That wider activity and collaboration within the NTCN will be facilitated and supported by Network members. *Comments: Assumption still holds true. The 'Tortugueros Nicaragua' WhatsApp group is operating as an effective national platform for promoting information sharing and collective action, superseding role/function of NCTN.*

**Assumption 2.4:** That the current/future employment or roles of training attendees enable them to apply the learning they have gained. *Comments: Assumption still holds true.*

**Assumption 3.1:** That the current positive attitude, locally and nationally, to developing sustainable livelihoods and new enterprise partnerships is maintained. *Comments: Assumption still holds true. Despite challenging context, project strategy has strong support from coastal communities and aligns with government's priorities for community-led development.*

**Assumption 4.1:** That the landowner will maintain his interest in reaching an agreement to ensure long-term conservation. *Comments: Assumption still holds true. Most recent dialogue continues to indicate that all parties remain interested in securing the conservation agreement.*

**Assumption 4.2:** That additional funding needs, related to the establishment of formally protection of the land, can be raised well before the current agreement expires in 2022. *Comments: Assumption still holds true.*

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

The project's impact statement is as follows: ***Nicaragua's development planning for coastal and marine areas incorporates strategies to conserve natural capital and enable coastal communities to benefit from it sustainably.***

*Contribution to higher-level impact on human development and wellbeing:*

The project aims to address multiple dimensions of poverty experience by female and male members of ten coastal communities, seven of which are classified as in severe poverty. We are working with target groups who are poor, marginalised and largely reliant upon marine/coastal resources, to build resilient livelihoods and increase their wellbeing.

Livelihood diversification is helping to reduce community members' external dependencies and therefore vulnerabilities to socio-economic and environmental changes (including those linked to climate change, the economic impacts of the Nicaragua's socio-political unrest and now to COVID-19). A focus of our approach is to build social capital, for example in terms of good governance and strengthened networks of support, to improve their ability to adapt to the current context and respond to future challenges and opportunities. From experience to date we are confident that the process by which the project is facilitating enterprise and market system development will result in improvements in subjective and relational, as well as material, aspects of wellbeing. For

example, fishers in EPR engaged in snapper cultivation are both well organised and committed to responsible fishing; they are therefore able to get a better price for their fish and are starting to have the confidence and contacts to negotiate with buyers higher up the value chain.

Participation in economic activities has already been shown to improve the confidence, self-esteem and social status of community members, particularly women. For example, through the Weaving for Nature enterprise, the work of the women weavers is now valued and rewarded, and the weavers' families acknowledge that they are working women who provide income to their households. In addition, securing clear and officially recognised rights to sustainably manage mangrove concessions increases community members' sense of control over their lives, and confidence in the future, as well as promoting social capital and reducing conflict over natural resources. This is particularly relevant in the light of the level of education and opportunities available to these cooperatives' members, 17% of whom are illiterate and only 32% of whom have completed primary education.

#### *Contribution to higher-level impact on biodiversity conservation:*

Positive impact on biodiversity as a result of project interventions is likely to be measurable in the medium to long term, especially with respect to marine turtle populations which are expected to take decades to recover. Beneficiaries' motivations to conserve are being captured through monitoring of perceptions and actions; one positive example of this is through Weaving for Nature *"Many of the women and many of their relatives who are now part of this initiative, used to go to the beach to poach turtle eggs. Now they visit the same beach, but to clean it."* FFI's wider marine turtle conservation programme collates longitudinal data on marine turtle populations in the Eastern Pacific, monitoring number of females, number of nests/eggs laid, % protected and number of hatchlings released at priority nesting beaches along the Pacific coast of Nicaragua. This data is being used in conjunction with socio-economic data and data on attitudes towards turtles and marine conservation, to evaluate project impact on target populations.

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

- **SDG 1:** through support to the establishment and sustainable management of 5 mangrove concessions, the project is promoting equitable rights to economic and natural resources (1.4). It is building resilience amongst poor coastal communities through diversification of livelihood strategies into cockle and snapper production, processing and sale (1.5). In addition, capacity-building activities are equipping women and men from these communities to participate in - and benefit from - ecotourism linked to turtles, when the sector recovers. This is being achieved through the technical and organisational strengthening of small local enterprises, enabling them to efficiently provide a more diverse suite of high quality goods and services to a wider variety of tourism market segments.
- As described in section 7, the project is working to ensure gender equity, as a contribution to **SDG 5**.
- **SDG 8:** the project is contributing to indicators 8.3 and 8.9 by supporting entrepreneurship and social enterprise development, including support to sustainable ecotourism, that incorporates community-based tourism products and services, provides employment and respects local culture.
- **SDG 14:** Work to develop the national guidelines on hatchery management and increase national capacity and collaboration for conservation management and protection are contributing to indicator 14.2, whilst progress in establishing responsible artisanal fisheries and sustainable management of estuarine mangrove areas contribute to both indicators 14.2 and 14.4.

## **5. Project support to the Conventions, Treaties or Agreements**

*Convention on Biological Diversity (CBD):* The project supports implementation of **CBD Articles** 7 (Identification and Monitoring), 11 (Incentive Measures), 12 (Research and training), 13 (Public Education and Awareness) and 17 (Exchange of Information). It contributes to **Aichi Biodiversity Targets** (1, 2, 6, 12, 18, 19) and the delivery of associated **National Targets** (1. Increase conservation knowledge; 5. Improve wellbeing through sustainable livelihoods; 7.

Promote sustainable fishing methods that comply with regulations; 8. Advance sustainable and environmentally responsible tourism; 11. Strengthen local community participation in natural resource management decision making; 13. Integrate into sectoral policies, nationally and locally, the conservation and restoration of biodiversity; 14. Conserve threatened species and genetic diversity).

*Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)*: All five marine turtle species which inhabit Nicaragua's coastal and marine ecosystems are listed as **CITES Appendix I**. Whilst tackling trade is not a focus of the project, work undertaken will strengthen the national platform for work under **CITES Article II** (Fundamental Principles) and will encourage better practices amongst tourism operators.

FFI's database of information that our field teams collect and collate on marine turtle nesting and hatching success on the Pacific coast of Nicaragua was fed into the process of updating the *Red List of Threatened Species for Nicaragua* (published in May 2018) and a *regional update of IUCN Red List data* – which plays a key role in tracking progress towards the Aichi targets.

In Y2, FFI fed data on the impacts of trade on marine turtle populations in Nicaragua and on good management examples, into documents on hawksbill and other marine turtles compiled by the CITES Secretariat in preparation for the 18<sup>th</sup> CITES CoP in Sri Lanka (CoP18 Doc. 70). Building on our contact with Nicaragua's CBD/CITES Focal Point in Y3, we are hoping to support Nicaragua to report on implementation of the CoP18 turtle decisions prior to the 73rd Standing Committee meeting scheduled in October 2020.

## 6. Project support to poverty alleviation

By the end of the project, 400 households (approximately 2,000 women, men, girls and boys) in ten poor coastal communities (as per Summary of Target Communities submitted as an Annex to our Y2 report) are expected to experience livelihoods and well-being benefits from project activities. These comprise direct beneficiaries engaged in fisheries and cockle harvesting (including those previously involved in collecting turtle eggs) and in the provision of goods and services to the tourism industry. In addition, economic benefits from project-supported enterprises will indirectly benefit a much greater number of people through resulting wider stimulation of the local economy. For example, direct beneficiaries benefitting from increased household income are likely to spend most of this locally. In our experience using a participatory market system approach has resulted in 'crowding in' and replication of successful business models developed through project support, hence multiplying the economic benefits significantly and attracting increased inward private sector investment into the local economy.

The project has a robust socio-economic baseline against which evidence of impact on poverty alleviation can be measured. Household-level socio-economic baseline data from 260 households across 21 Pacific coastal communities (800 inhabitants, 47% female) confirmed poverty indicators, such as household food shortages are highly prevalent in up to 44% of households. Pre-project, target beneficiaries lacked the skills and opportunities to engage in sustainable livelihoods.

Evidence of concrete changes in livelihoods in the form of increases in income generation is being collated. For example, analysis of data from the Weaving for Nature initiative at Astillero indicates that each weaver is earning an average of U\$125 extra income each month. For those involved in snapper cultivation in Estero Padre Ramos, initial data indicates that each cooperative member has earned an average of U\$710 for each productive cycle completed to date, with a 6% increase in production in 2019 compared to 2018 (see Annex 4H).

Other indirect beneficiaries are additional members of the coastal communities who may not be directly involved in project-supported enterprises but whose livelihoods are dependent on the healthy marine environment this project ultimately aims to ensure. Both direct and indirect beneficiaries are likely to experience non-monetary benefits to their wellbeing.

## 7. Consideration of gender equality issues

The project is designed to generate benefits for both women and men from coastal communities. Gender disaggregated data are collected in order to ensure the project can measure progress towards gender equality. FFI and Fundación LIDER are working to promote women's leadership in conservation and enterprise activities. In all activities, consideration is given to addressing the barriers that frequently inhibit female participation – for example, ensuring that the location, timing and format of meetings and training events are equally accessible to women and men.

Active measures have been taken to involve women in the governance structures of new and existing cooperatives and enterprises (see below), as well as in training wherever relevant, taking into account gender differentiated roles in household livelihood strategies. Whilst there is an inherent male bias in some of the key beneficiary groups (e.g. most fishers and beach patrollers are male), 41% of the 251 participants in project-led training have been female.

Fundación LIDER has supported establishment of appropriate governance structures for the cooperatives, including the election of boards of directors with representative participation of women and encouraging all the cooperatives to develop strategies for promoting the engagement of women in the cooperatives' management and activities. To support processes of community organization, with a focus on the integration of women in management positions, three community-based assemblies were held Y1 (60 participants; 33% women), four assemblies and seven workshops in Y2 (22-40 participants per event, 48% women) and one assembly in Y3 (10 participants, 20% women). Across the nine fisher cooperatives, the gender balance across all the cooperatives' membership is 44% women and 56% men (ranging from 20% to 77% women) with comparable gender balances within the cooperatives' Boards of Directors. Anecdotal reports from partner Fundación LIDER indicate that that cooperatives with a higher proportion of women are 'better organised'.

As described in section 3.5 above, active participation in economic activities has been shown to be particularly beneficial to women, not only through increases in - and control over - household income but also in terms of self-confidence, social capital and status within the household and the community.

In addition, the majority of university students involved in training and fieldwork in the communities are female (64% to date compared with target of 40% over project period) – as are the key members of the Nicaraguan project team, including FFI's National Director and in-country turtle programme leader. In our experience, the high profile of educated, dynamic women challenges gender stereotypes and provides role models for women and girls within the community. This is particularly the case in these poor coastal communities where mothers aspire to provide their female children with a wider range of opportunities than they themselves may have had. The project team have actively worked to ensure that the female students are treated with the same respect by male members of the communities as their male colleagues.

## 8. Monitoring and evaluation

FFI has actively engaged in the wider debate around assessing impact in conservation since 2002. For example, we strongly engaged with the 'Measures of Conservation Success' initiative ([www.cambridgeconservationforum.org.uk/initiative/harmonising-measures-conservation-success](http://www.cambridgeconservationforum.org.uk/initiative/harmonising-measures-conservation-success)) which developed a conceptual model for how change is achieved through different conservation interventions and demonstrated that intermediate outcomes were good predictors of long-term impact. This means that, whilst monitoring long-term impact is often difficult (especially for species like turtles that we will not see returning to beaches to nest for a number of decades), tracking changes in intermediate outcomes (such as improved conservation management or reduced threats to biodiversity) is a good surrogate from which likely impact can be predicted (Kapos et al., 2008, 2009). We continue to apply what we learnt from this initiative and believe this approach has great relevance in understanding the impact and success of our work, since it is well grounded in the reality of conservation and is a practical tool that can be easily applied to different project contexts. For more information on how FFI works to understand conservation success please follow [this link](#).

Our approach to developing monitoring and evaluation for this project has been guided by the overarching principles that FFI uses to understand the impact of all our work. We use Theories of Change (TOC) to design our projects and programmes, and to develop appropriate monitoring strategies tied to understanding the ultimate impact of our work. By linking project monitoring to TOC we aim to ensure monitoring effort is focused on indicators of long-term and intermediate impacts, as well as collecting basic information on outputs and activities. Wherever possible we work to use the most context-appropriate and sustainable monitoring tools in order that project level monitoring can be continued beyond the scope of specific grants.

Accordingly the project's logframe and M&E framework align with FFI's Theory of Change (TOC) for our broader programme of work to conserve turtles in Nicaragua and associated monitoring indicators. FFI, Fundación LIDER and José Urteaga of Stanford University all have a role in project M&E, with information collated and shared through annual or biannual monitoring reports, project meetings and at Steering Committee level. All data on project beneficiaries and participants (anonymised in line with GDPR), is collated and gender disaggregated. Detailed baseline monitoring of socioeconomic indicators and perceptions surveys across 21 Pacific coast communities completed in Y2 employed survey and sampling methods designed to measure change and therefore project impact.

In Y2, the project team undertook a process to thoroughly review and refine the project's logical framework, indicators and underlying assumptions, both to simplify the project's logic and to reflect the national context within which the project was operating at that time. However, in the light of further significant changes to the national and global context for this project, and associated uncertainties, the Project Steering Committee began a further detailed review of the project logframe at the end of Y3. As described in Section 3.3, for some key indicators we anticipate challenges in isolating measurement of the impacts of project interventions from those of project externalities linked to both the national socio-economic crisis and COVID-19 pandemic. This process therefore aims to ensure that the project's logic reflects the external reality, that the Indicators and targets are realistic and achievable in the current context, and that the project's Outputs and Activities will contribute to the project overall Outcome. FFI will be submitting suggested logframe revisions to the Darwin Secretariat following submission of this report.

## **9. Lessons learnt**

*Project Steering Committee:* The creation of a Project Steering Committee has facilitated project communications, streamlined decision making and permitted effective adaptive project management throughout implementation. Bringing the range of expertise and knowledge of the Steering Committee members together on a regular basis has proved highly beneficial, ensuring that all decisions are well informed, priorities are identified and all team members' responsibilities are clear.

*Adaptive project management:* The process of reviewing and updating the project's logical framework is an essential and highly beneficial process for all those involved. This is especially relevant for such an ambitious project, which involves a broad range of stakeholders, activities and external dependencies. The support of the Darwin Secretariat through these review processes are welcomed and much appreciated by the project team.

*External dependencies:* This project has operated in a highly challenging and unpredictable external context, which is continuing to generate significant and wide ranging impacts across Nicaragua. The external dependencies of the project, in particular in relation to the coastal and nature-based tourism sector, are inherent to its design as it aims to improve national capacity and best practices. Up until Y3, our analysis was that FFI and the project were well positioned to influence the tourism sector as it re-establishes and to build national capacity for sustainable community-based coastal tourism; however we consider this no longer realistic within the project timeframe and our proposed logframe revisions will reflect this shift.

*Bilingual project implementation and management:* The project is being managed and implemented entirely in Spanish, including at Steering Committee level. Relevant project documentation therefore has to be translated into Spanish in order to share with partners and key stakeholders (including Fundación LIDER). Whilst we are able to synthesise annual/half-year Darwin reports, case studies and lessons learned from the project in English, all other project documentation

is in Spanish. FFI is conscious that the Darwin reviewers appreciate receiving project documents (or at least summaries of key documents) in English. However the translation of information and documentation implies significant additional time for project team (especially the Project Lead). Increased time and resources need to be allocated and budgeted for this in future projects.

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

Issues raised in review of Y2 Annual Report:

- *Update the Darwin Initiative regarding the security situation on the ground, particularly if it worsens or does not appear to be improving at a sufficient rate.*

The Darwin Secretariat has been kept up to date during Y3 through email updates sent in October 2019 and February 2020.

- *Provide clarification on how the project intends to make up the number of students attending its internship programme in Y3 and Y4 as only 10/45 have attended thus far.*

As described in Section 3.2, the impact of the external context on achievement of the target under this indicator (Indicator 2.2) has been significant – i.e. the roll out of the training module in coastal community-based ecotourism has not been possible throughout Y2 and Y3. We believe the external context is unlikely to become more favourable within remaining project timeframe, and this indicator under review as part of our current logframe revisions.

However, as described in Section 3.1 (Activities 2.1 and 2.2), the project has supported actions which compensate for this - through the support to the Nicaragua Azul marine museum and to student research projects and internships. A total of 26 students were supported by the project this year, bringing the total number of students with increased knowledge and skills in relevant topics to 55 (64% female), with 44 of these students having completed fieldwork projects. Accordingly the project has already exceeded the target set under the associated Indicator 2.1.

- *Improve the promotion of the Darwin Initiative and recognition of the UK Government funding in Y3, showing evidence of this in the next annual report.*

As per our Y2 report and email communications with the Darwin Secretariat on 4 and 25 October 2019, we have believe it to be prudent to keep external communications regarding the project to a minimum throughout the majority of Y3. Whilst the improved relationship with government authorities in the last quarter of Y3 has meant that the project team have begun work on a communications plan to share project learning and improve recognition of the Darwin Initiative and UK government funding of the project, evidence of this will not be available until our final report.

## 11. Other comments on progress not covered elsewhere

The main risk to the project comes from the highly challenging external context for the project, resulting from national instability since 2018, compounded by the outbreak of the COVID-19 pandemic in early 2020.

*National instability:* Following the in-depth analysis of the situation shared with Darwin at the end of Y2, FFI has continued to monitor the actual and likely impacts of the social and economic instability on the project context and delivery throughout Y3.

*COVID-19 in Nicaragua:* The trajectory of official and unofficial cases of COVID-19 in Nicaragua has lagged behind other countries, but cases are now rising substantially. FFI has been doing everything we can to minimise the risk to staff, partners and communities. We closed the FFI office in Managua on 20

March, since then FFI's in-country team have been working in line with an internally agreed protocol: staff have been working from home and are continuing essential field activities where possible, in line with adaptive risk assessments and social distancing protocols. We are for the moment functioning well given the circumstances, though we anticipate and are planning for the significant challenges ahead. Overall, we will continue to stay focussed on our long term objectives whilst mitigating against current risks and challenges.

*Mitigation of risk:* In order to manage this project adaptively, further changes are now needed to the project to reflect the external reality of the project. Accordingly FFI will be submitting suggested logframe revisions to the Darwin Secretariat following submission of this report.

## **12. Sustainability and legacy**

For the majority of the project, FFI and partners have kept external communications and activities to promote awareness of the project within Nicaragua to a minimum, as appropriate in the national context. However, we are hopeful that we will be able to build the profile of the project in Y4, in line with our improved relations and shared workplans with the national government.

The project is addressing issues of national interest. For example, the national newspaper El Nuevo Diario published an article in early 2018 ([available here](#)) and MARENA's 2018 [Bulletin on Community and the Environment](#) (p22-23), which highlight the synergies of the project with other initiatives for the reproduction of snapper.

The project is also increasing capacity and support for project aims. For example, through the '*Tortugueros Nicaragua*' social network (Indicator 2.4) field practitioners have access to the latest information and peer-peer support. We anticipate that this will grow and sustain beyond the project life.

In 2017, FFI launched a new website (fauna-flora.org) that has a page dedicated to each of FFI's projects (a body of work with a biodiversity outcome). The broader programme of work which this project contributes to is featured [here](#). The website includes a '[documents and reports](#)' section where project outputs can be housed (for example <https://api.fauna-flora.org/wp-content/uploads/2019/05/FFI2019Weaving-for-Nature.pdf>), as part of FFI's broader strategy to promote and comply with open access requirements.

Despite significant challenges to date, the project is making progress towards planned steps to sustainability of our project Outcome, particularly through the work to build Nicaragua's technical capacity relevant to turtles (Output 2) and for sustainable livelihoods amongst coastal communities (Output 3). Nevertheless the project's sustainability and exit strategy is under review, as part of our review of the project's logical framework.

FFI will maintain its presence in Nicaragua beyond the lifetime of the project and will continue to collaborate with authorities and partners on a long-term programme to restore turtle populations and the biodiversity, productivity and resilience of Nicaragua's coastal and marine ecosystems.

## **13. Darwin identity**

Prior understanding of the Darwin Initiative within Nicaragua is limited to international NGOs and members of the Ministry of Environment. For the majority of the project, FFI and partners have kept external communications, social media activity and other activities to promote awareness of the project within Nicaragua to a minimum, as appropriate in the national context. Where appropriate and possible, the project team do explicitly refer to the support of the Darwin Initiative to this project, with Darwin Initiative and UK Government logos used on meeting/workshop invites, participant lists, and publications resulting from the project. Nevertheless, external identity and profile of the project is relatively low. However, we are hopeful that we will be able to build the profile of the project in Y4, in line with our improved relations and shared workplans with the national government. Where appropriate and possible we will publicise

the Darwin Initiative and build understanding of the aims and approach of the Darwin Initiative amongst project stakeholders in Nicaragua. Neither the project nor FFI Nicaragua has a dedicated Facebook page.

## 14. Safeguarding

### Update on FFI's policies:

FFI's **Safeguarding Children and Adults at Risk Policy & Procedure** was developed in December 2014 and last updated in March 2018. The policy applies to Members of Council and its sub-committees, FFI employees, temporary staff provided through agencies, volunteers and interns, contractors, consultants, service providers and any third parties who carry out work on behalf of FFI, in partnership with FFI or in conjunction with FFI. The policy demonstrates the organisation's commitment to safeguarding children and adults at risk and to complying with the United Nations Convention on the Rights of the Child; confirms the arrangements and procedures in place to safeguard children and adults at risk, including FFI's code of conduct; and provides clear guidance on how to raise, and how FFI responds to, concerns and allegations regarding the maltreatment of children and adults at risk. The policy expressly states that FFI does not tolerate sexual exploitation and abuse of any kind.

FFI's **Anti-bullying and Anti-harassment Policy** was developed in March 2018. The policy applies to Members of Council and its sub-committees, FFI employees, temporary staff provided through agencies, volunteers and interns, contractors, consultants and any other third parties who carry out work on FFI's behalf. The stated purpose of the policy is to ensure a safe, welcoming and inclusive working environment, which is free from intimidation, threats, discrimination, bullying or harassment; to communicate clearly FFI's zero-tolerance of any form of bullying or harassment; to define the terms 'bullying' and 'harassment' and provide examples, so that there is a clear understanding of the types of conduct that are prohibited; to communicate the importance of reporting incidents of bullying and harassment; and to communicate the procedures in place to manage incidents of bullying and harassment. The policy expressly states that bullying or harassment of any kind against a person or group of people, whether persistent or an isolated incident, will not be tolerated under any circumstances.

FFI's **Whistleblowing Policy** was developed in June 2013 and last updated in December 2019. The policy applies to FFI employees. The stated purpose of the policy is to encourage employees to report suspected wrongdoing in the organisation as soon as possible, in the knowledge that their concerns will be taken seriously and investigated as appropriate, and that their confidentiality will be respected. It provides guidance on how to raise those concerns and aims to reassure employees that they can raise genuine concerns in good faith without fear of reprisals, even if they turn out to be mistaken.

FFI's partner due diligence procedures include checking whether any safeguarding concerns have arisen with the partner concerned and the Safeguarding Children and Adults at Risk Policy & Procedure forms part of contracts and agreements with third party contractors and sub-grantees. We are also currently researching LMS platforms (Learning Management Systems) which would enable online training in policies & procedures.

We monitor updates in Government and Charity Commission guidance and review our policies and procedures accordingly.

No safeguarding issues have been reported during the reporting year.

In terms of **social safeguards**, FFI has publically available position papers on our approach to **Free, Prior and Informed Consent Position, Gender in Conservation, Displacement and Restrictions on Access to Resources** and **Conservation, Livelihoods and Governance** (links below). Our specialist Conservation, Leadership and Governance team support regional FFI staff and partners to take a holistic, people-centred approach to biodiversity conservation, and to ensure all project activity is strongly aligned with these principles.

[https://cms.fauna-flora.org/wp-content/uploads/2019/06/FFI\\_2019\\_Position-on-free-prior-and-informed-consent.pdf](https://cms.fauna-flora.org/wp-content/uploads/2019/06/FFI_2019_Position-on-free-prior-and-informed-consent.pdf)

<https://www.fauna-flora.org/approaches/livelihoods-governance/gender>

[https://cms.fauna-flora.org/wp-content/uploads/2017/11/FFI\\_2013\\_FFIs-position-and-approach-to-conservation-livelihoods-and-governance.pdf](https://cms.fauna-flora.org/wp-content/uploads/2017/11/FFI_2013_FFIs-position-and-approach-to-conservation-livelihoods-and-governance.pdf)

[https://api.fauna-flora.org/wp-content/uploads/2017/11/FFI\\_2016\\_Displacement-and-restrictions-on-access-to-resources.pdf](https://api.fauna-flora.org/wp-content/uploads/2017/11/FFI_2016_Displacement-and-restrictions-on-access-to-resources.pdf)

## 15. Project expenditure

**Table 1: Project expenditure during the reporting period (1 April 2019 – 31 March 2020)**

Project spend (indicative) since last annual report	2019/20 Grant (£)	2019/20 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items				
Monitoring & Evaluation (M&E)				
Others				
<b>TOTAL</b>				

## Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2019-2020

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
<p><b>Impact</b></p> <p>Nicaragua's development planning for coastal and marine areas incorporates strategies to conserve natural capital and enable coastal communities to benefit from it sustainably.</p>		<p>The project has a robust socio-economic baseline against which evidence of impact on poverty alleviation can be measured.</p> <p>Participation in economic activities has already been shown to improve the confidence, self-esteem and social</p>	

		<p>status of community members, particularly women.</p> <p>FFI's long-term monitoring data on marine turtle nesting and hatchlings on the Pacific coast of Nicaragua will be used in conjunction with socio-economic data and data on attitudes towards turtles and marine conservation, to evaluate impact on target populations.</p>	
<p><b>Outcome</b></p> <p><b>The economic and conservation values of Nicaragua's globally important marine turtles are recognised locally and nationally, providing benefits to coastal communities and decreasing threats to these species and priority habitats.</b></p>	<p>0.1: No. of decision makers, including those who lead the National Development Plan process, who have access to information relating to values of marine turtles and their habitats (target: 20 by End of Project).</p> <p>0.2: % of women and men from 10 target coastal communities who report an improved ability to meet essential household needs year round (target dependent upon community: 10-20% by EOP).</p> <p>0.3: % increase in number of women and men from 10 target coastal communities who consider live turtles to be a valuable asset compared to baseline (target: 15% by EOP).</p> <p>0.4: Km. of nesting beaches with enhanced protection of marine turtle nests (baseline: 30km; target: 40km by EOP).</p> <p>0.5: National tourism sector (tourism agencies, industry bodies and operators - including INTUR and CANATUR) are using marine turtles as a flagship species for tourism in Nicaragua by EOP.</p>	<p>0.1: Report on economic values of Nicaragua's Pacific coast turtles completed. Recent improvements in communications and relations with government authorities opens up new opportunities for dissemination of key messages.</p> <p>0.2L At project baseline, 89% of 260 households surveyed across 21 coastal communities (representing 800 householders, 47% female), report income below the official national '<i>canasta basica</i>' indicator (= minimum needed to buy food and essential household expenses for family of 4).</p> <p>0.3: At project baseline, the majority of 460 coastal community members surveyed across 21 communities, reported that whilst they understand the economic potential of non-extractive use of turtles, they feel unable to benefit from such non-extractive values of turtles.</p> <p>0.4: At project baseline 32.5km of turtle nesting beach were protected. By end of Y2, 43km of nesting beach were protected, due to enhanced protection at Isla Juan Venado. In Y3, 16.5km of hawksbill nesting beach were protected according to established protocols, but government permits were not issued for protection of 26km of leatherback</p>	<p>0.1: Continue to seek to engage decision makers, share project information and to positively influence policies and plans.</p> <p>0.2: Project impact will be measured at EOP through post-project socio-economic surveying of both beneficiary and non-beneficiary households.</p> <p>0.3: Project impact will be measured at EOP through post-project perceptions surveying of both beneficiary and non-beneficiary households.</p> <p>0.4: FFI will continue to collate annual data on turtle nesting beach protection and monitoring at priority beaches and small tourism hatchery initiatives. We expect all necessary permits to be issued in Y4 and to exceed the target for this indicator at EOP, as additional tourism hatcheries come under enhanced protection.</p> <p>0.5: Due to the external context for tourism in Nicaragua, it is unlikely to be possible to conduct planned tourism surveys (re. current demand for turtle tourism and number of enterprises using turtles as a flagship species). We propose to amend this indicator to reflect external realities.</p>

		<p>nesting beach during 2019/20 nesting season.</p> <p>0.5: At project baseline, marine turtles were not being promoted by the national tourism sector as a flagship for tourism in Nicaragua.</p>	
<p><b>Output 1.</b> Policies, plans, marketing and practice of tourism and associated coastal development are informed by an economic valuation of turtles as a tourism asset and increased knowledge about their conservation.</p>	<p>1.1 No. of tourism and coastal development policies, plans and strategic decisions which refer to the economic value of living turtles and demonstrate knowledge of best practices for conservation and community benefit (target: at least 5 by EOP).</p> <p>1.2 % of CANATUR members who have expanded coverage of community-based turtle tourism initiatives in their national and international marketing of Nicaragua (target: 5% by March 2020; 10% by EOP).</p> <p>1.3 No. of community-based turtle tourism initiatives being marketed nationally or internationally by CANATUR members (target: 5 by March 2020, 12 by EOP).</p>	<p>1.1 Report on economic values of Nicaragua's Pacific coast turtles completed (Annex 4A). Associated communications plan in preparation. Sharp contraction in Nicaragua's tourism industry in means that it is a difficult context in which to influence the sector's codes of practice, marketing strategies, recovery plans and strategic decisions.</p> <p>1.2 Of the &gt;100 members of CANATUR (82 direct tourism business partners, 12 tourism associations and 17 territorial chapters that promote the small and medium-sized entrepreneurs that make up their large social enterprise base), 3% were marketing turtle tourism products at project baseline. Survey of CANATUR members to evaluate current and potential turtle-related tourism marketing was not possible in Y3 – the sector is focused on adapting to current context for tourism in Nicaragua. Impact of external context on achievement of targets under this indicator is high.</p> <p>1.3 At project baseline, one community-based turtle tourism initiative in Nicaragua was being marketed at a national and international level. Survey of CANATUR members to assess change in this measure was not possible in Y3 - the sector is focused on adapting to current context for tourism in Nicaragua. Impact of external context on achievement of targets under this indicator is high.</p>	
<p>Activity 1.1 In collaboration with partners from tourism sector (tourism agencies, industry bodies and operators - including CANATUR - governmental authorities, and FIU) and turtle conservation groups, design methodology and implement valuation study into the economic and social-cultural values of Nicaragua's Pacific coast turtles. Share preliminary results with partners for feedback.</p>		<p>Completed (see Annex 4A).</p>	<p>See activity 1.2 and 1.3.</p>
<p>Activity 1.2 In collaboration with tourism and turtle conservation partners, develop communications plan for the dissemination of key information from the study to target audiences (decision makers, tourism sector, coastal communities). Contract the design and production of appropriate and agreed communications materials.</p>		<p>Communications plan in preparation.</p>	<p>Production and dissemination of communications materials is a priority for Y4.</p>
<p>Activity 1.3 Share finalised report and disseminate communications materials amongst tourism and turtle conservation partners, other stakeholders and target audiences (including coastal municipal authorities, MARENA, leaders from target coastal communities, media agencies) and monitor impact.</p>		<p>To follow completion of Activity 1.2</p>	<p>Production and dissemination of communications materials is a priority for Y4.</p>

<p>Activity 1.4 Engage with government authorities to inform relevant development policy formulation and planning processes in order to promote the integration of the conservation of turtles and their coastal/marine habitats into these national instruments.</p>	<p>Inter-institutional workplans for 2020 developed and agreed with six central government departments.</p>	<p>Strengthened collaboration and coordination opens up new opportunities for promoting integration of conservation values into government-led initiatives, although policy-level influence remains unlikely.</p>
<p>Activity 1.5 Collaborate with FIU, tourism chambers/associations, municipal authorities and communities to assess existing turtle/marine tourism near project locations and identify i) potential improvements to existing initiatives, ii) potential new community-based initiatives and iii) potential links between local product providers, national operators and international supply chains.</p>	<p>30 sites (26 hotels, 4 community-based tourism initiatives) with turtle conservation/hatcheries identified and characterised. Collapse in tourism has meant that further work to engage stakeholders in the processes under this activity has not been possible. Project has continued to support site specific activities to strengthen community capacity for ecotourism products and services.</p>	<p>Envisaged processes to identify potential for i) improvements to existing initiatives, ii) new community-based initiatives and iii) links between local product providers, national operators and international supply chains is no longer likely to be possible within the project. Activity under review as part of logframe review process.</p>
<p>Activity 1.6 In collaboration with FIU, facilitate a workshop to assist CANATUR and governmental authorities to develop a strategy to package and promote community-based turtle/marine tourism initiatives in specific markets. Support delivery of strategy where appropriate, for example in developing links between local product providers and national / international operators and in guiding tourism product plans so that they follow technical, environmental and social good practice and strengthen links between livelihoods and custodianship of turtles and their habitat.</p>	<p>Collapse in tourism has meant that proposed workshop has not gone ahead.</p>	<p>The development and delivery of this strategy is unlikely to be achievable in the project timeframe. Activity under review as part of logframe review process.</p>
<p>Activity 1.7 Share lessons learned from the project through two publications; one technical report in English and a more popular publication in Spanish.</p>	<p>N/A</p>	<p>Further learning documents scheduled for Y4.</p>
<p><b>Output 2.</b> Nicaragua's technical capacity relevant to turtles, hatchery management, coastal/marine ecosystems and low impact coastal development practices is increased, through training in these disciplines and strengthening of national and regional networks.</p>	<p>2.1 No. of graduates/undergraduates who complete fieldwork research projects in coastal areas (target 24 students; 6 per year x four years, at least 40% women).</p> <p>2.2 No. of people (tourism professionals, community based tourism service providers, coastal municipal staff, sustainable tourism students, conservation professionals) complete coastal community-based ecotourism module (target 45 people;</p>	<p>2.1 To date, 44 students (66% female) have completed placements and/or fieldwork projects in relevant topics (as evidenced by fieldwork reports and participation records, e.g. Annex 4B). 50% of 14 students from Y1 &amp; Y2 are employed or continuing their studies in a related field.</p> <p>2.2 Eight students completed first iteration of community-based coastal tourism module in Y1 (62.5% female). 1,200 people are better informed about Nicaragua's marine biodiversity having visited to Nicaragua Azul museum. Impact of external context on achievement of target under this indicator is high; roll out of training in Y2 and Y3 has not been possible and the external context is unlikely to become more favourable within remaining project timeframe.</p> <p>2.3 National best-practice hatchery management guidelines produced (Y3; as evidenced by guidelines document Annex 4F) following scientific research study into alternative incubation techniques (Y1&amp;2) and participatory process involving</p>

	<p>15 per year x three years, at least 40% women).</p> <p>2.3 No. of turtle hatchery/tourism initiatives implementing best practice guidelines (target 12 by Sept 2019)</p> <p>2.4 NTCN has a clear strategy, its members have increased access to relevant guidance and information, are in regular communication with peers regionally and nationally, and collaborate on issues as relevant (by EOP).</p> <p>2.5 No. of people (professionals, service providers, authorities, students) integrating learning from national and regional experience and using knowledge gained into Nicaraguan initiatives (target 32 by EOP)</p>	<p>seven stakeholder organisations (Y3, Annex 4F). Coastal sites (n=29) for uptake of best practice guidelines have been identified and characterised, and virtual training workshops designed for dissemination of guidance.</p> <p>2.4 'Tortugueros Nicaragua' WhatsApp group operating as an effective national platform for promoting information sharing and collective action amongst NTCN members and other stakeholders engaged in turtle conservation in Nicaragua. Impact of external context on NCTN Board structure and function means that project will not achieve target to update NTCN strategy.</p> <p>2.5 To be measured at EOP.</p>
<p>Activity 2.1 Through links with universities in Nicaragua, support undergraduate and graduate students to undertake research projects or internships on turtles, marine/coastal conservation, community-based ecotourism, sustainable livelihoods and socio-economic issues, either as part of their studies or to gain experience after graduating. Track their post-internship professional development.</p>		<p>FFI collaborating with three national universities to support student placements. 6 students supervised in Y1; 4 students supervised in Y2; 26 students supervised in Y3 (through 5 thesis projects, 2 internships, 20 short field projects). Post-internship professional development tracked.</p>
<p>Activity 2.2 Through partnership with FIU, develop and deliver a module on coastal community-based ecotourism, including a field trip to observe turtle tourism and low-impact coastal development - to inform and influence current and future professionals in tourism, coastal development, municipal planning, and natural and social sciences. Deliver the module at least three times; incorporate into at least one university course covering sustainable tourism (UAM) and adapt for delivery as a stand-alone course for key professionals. Monitoring subsequent use of knowledge and skills.</p>		<p>First iteration of training in coastal community-based ecotourism delivered in Y1. Postponed in Y2 due to impacts of national instability on coastal tourism stakeholders. Training resource workbook revised and updated in Y3.</p> <p>Nicaragua Azul marine museum launched as a platform for promoting knowledge and community-based tourism linked to the marine environment and biodiversity. 1,200 visitors to date.</p>

<p>Activity 2.3 In consultation with NTCN members, authorities and tourism stakeholders, develop best practice guidelines (including technical, environmental and social responsibility considerations) for the management of turtle hatcheries linked to coastal tourism enterprises. Disseminate the guidelines and provide training to managers and staff of turtle hatchery/tourism initiatives in their implementation.</p>	<p>National best-practice hatchery management guidelines produced (Y3; as evidenced by guidelines document Annex 4F) following scientific research study into alternative incubation techniques (Y1&amp;2) and participatory process involving seven stakeholder organisations (Y3, Annex 4F).</p> <p>Coastal sites (n=29) for uptake of best practice guidelines have been identified and characterised, and virtual training workshops designed for dissemination of guidance.</p>	<p>Workshop for MARENA to review and approve final version of guidelines.</p> <p>Provide guidance and training in their adoption as needed – i.e. workshop to disseminate guidelines amongst priority stakeholder groups, plus 3 virtual training workshops for managers and staff of 29 organisations running turtle hatcheries.</p>
<p>Activity 2.4 Facilitate and support strategic development of the NTCN. Provide ongoing support to NTCN members, helping them to organise collective statements and action on issues affecting turtles, facilitate data sharing, provide expert services to communities, authorities and the private sector, connect with regional peers and raise funds.</p>	<p>Communication and coordination amongst NTCN members and others involved in turtle conservation (beach patrollers, field biologists, academics) promoted through active Whatsapp group.</p> <p>Efforts to facilitate NTCN strategic planning process in Y3 not taken up by NCTN Board.</p>	<p>Continue to facilitate national level communication and collaboration amongst stakeholders involved in turtle conservation through social media and other platforms as appropriate.</p>
<p>Activity 2.5 Organise a study visit to Costa Rica for tourism and conservation professionals, representatives of CANATUR and community members to learn from examples of sustainable turtle tourism and community-based ecotourism from peers and stakeholders in that country.</p>	<p>Scheduled to take place in Y4 of the project.</p>	<p>Activity under review as part of logframe review process.</p>
<p><b>Output 3.</b> Female and male community members adjacent to turtle nesting beaches have the skills and opportunities to engage in sustainable livelihoods.</p>	<p>3.1 No. of community members trained in relevant technical skills and provided with support for SME development or employment (target: 180 by March 2019; 360 at EOP; 60% women).</p> <p>Target groups/enterprises include:</p> <ul style="list-style-type: none"> <li>• Tourism service providers (mostly female) - guiding, hatchery visits, catering, accommodation, weaving/handicrafts, honey.</li> <li>• Seasonally employed turtle beach patrollers seeking skills for their off-season livelihoods (mostly male).</li> </ul>	<p>3.1 A total of 251 community members (104 women and 147 men) have received technical training or support in SME development or employment: Women weavers (47 women); Turtle beach patrollers (46 men); Chacocente Tourism/Honey Cooperative (16 women, 17 men - evidence provided in Annex 4G); EPR tourism services providers (3 male boatmen, 3 female cooks, 7 male guides); Members of EPR community cooperatives engaged in cockle/snapper cultivation (38 women, 49 men - evidence provided in Annex 4H and 4I); Fishers from Aserradores (25 men).</p> <p>3.2 The following 13 community cooperatives and groups have robust business models;</p> <ul style="list-style-type: none"> <li>• Chacocente Tourism/Honey Cooperative.</li> <li>• Weaving for Nature women’s groups at Astillero and El Tintal.</li> <li>• Tourism service providers in EPR (fishers providing boat transportation services).</li> </ul>

	<ul style="list-style-type: none"> <li>Fishers (mostly male), cockle harvesters and processors (mostly female), snapper rearing group.</li> </ul> <p>3.2 No. of sustainable fisheries and community based tourism enterprises with robust business models (target: 6 by Sept 2019; 12 by EOP).</p>	<ul style="list-style-type: none"> <li>EPR Fisher cooperatives (nine cooperatives engaged in cockle cultivation, snapper rearing and production of high-protein fish-food).</li> </ul>
<p>Activity 3.1 Conduct a capacity and training needs assessment for women and men from target coastal communities (including for seasonally-employed turtle beach patrollers, to identify opportunities to improve their off-season livelihoods and therefore the value and security of being a turtle patrol professional). Based upon this assessment, develop tailored training plans for target groups across a variety of sectors (including nature-based tourism service providers and sustainable fisheries).</p>	<p>Capacity and training needs assessments conducted in Y1/Y2 and training plans developed/refined for five groups of target beneficiaries:- Weaving for Nature women's groups (two groups); Chacocente Tourism/ Honey Cooperative; EPR tourism guides; EPR Boatmen; artisanal fishing cooperatives (six coops).</p>	<p>See Activities 3.2 and 3.4</p>
<p>Activity 3.2 Provide tailored technical skills training and SME development support to assist community groups to establish or improve enterprise, employment and service provision opportunities related to coastal tourism, especially those benefitting women and vulnerable groups.</p>	<p>Target groups (women Weavers, Chacocente Tourism/ Honey Cooperative; EPR Boatmen) supported to diversify livelihoods and facilitate readiness for when coastal tourism recovers.</p>	<p>Continue to support target groups as described.</p> <p>Re-establish work with tourism guides as/when tourism recovers and they resume services.</p>
<p>Activity 3.3 Support development of a volunteer-tourism enterprise at EPR, in line with a business plan which ensure a strong community role in decision-making, service provision and economic benefits.</p>	<p>Support provided to nascent social enterprise SOS Nicaragua to manage voluntourism initiative and promote community engagement in the initiative. Worked with enterprise to update business plans and financial projections in response to collapse in tourism visitation. External context made initiative unviable. Initiative suspended in Y3 and unlikely to resume in Y4.</p>	<p>Review options for future voluntourism at this site to generate community and conservation benefits.</p> <p>Continue to encourage greater role for community stakeholders in service provision for 'Casa Carey'.</p>
<p>Activity 3.4 Through partnership with Fundación LIDER, provide tailored technical skills training and SME development support to assist community groups to establish or improve enterprise, employment and livelihood opportunities related to sustainable fisheries, especially those benefitting women and vulnerable groups. Target groups and areas of support include:</p> <p>3.4a Assist at least four community groups in EPR to establish concessions for custodianship of mangroves and sustainable collection and cultivation of mangrove cockle (<i>Anadara similis</i>), following a model already proven in</p>	<p>Project is supporting nine community fisher cooperatives in EPR. Through collaboration with Fundación LIDER, project is strengthening organisational capacities, equitable governance and empowerment of female leadership.</p> <p>Five cooperatives awarded mangrove concessions and licences for cockle</p>	<p>Through partnership with Fundación LIDER, provided targeted support to the nine cooperatives to strengthen their organisational capacities, focusing on interventions to generate self-sufficiency post-project.</p>

<p>Chinandega District, thereby protecting juvenile and adult hawksbill habitat and providing income. Support the cooperatives to set up a plant for processing and purifying cockles, which adds substantial value.</p> <p>3.4b Assist at least one community group in EPR to establish a snapper rearing facility, with attention to both ecological and social costs and benefits, and conduct monitoring as per environmental permits. This follows a model already proven in the EPR and will provide income to individuals who have changed from destructive practices (former egg poachers and blast fishers).</p> <p>3.4c Support fishers from four communities who have committed to responsible fishing practices and are championing locally the elimination of blast fishing and other illegal practices harmful to turtles. Areas of training and support include; improved fish handling and storage, negotiation skills, access to higher value markets, promotion to hotels based on commitment to conservation, business plan development. This extends an FFI initiative on Nicaragua's southern Pacific coast, where blast fishing is less prevalent, which generated increased income while tackling threats to both turtles and fisheries.</p>	<p>cultivation. Signage installed to demarcate concession sites. Collaboration with University to study sustainable harvesting levels. Mangroves reforested in 12 priority areas identified by MARENA (12,900 seeds planted in Y1; 32,500 in Y2; 55,000 in Y3).</p> <p>LIDER supporting seven cooperatives in rearing snapper, throughout productive cycle. Training delivered in snapper fisheries management, production of high protein fish-food and water quality monitoring, marketing. Project has co-financed construction of fish-food processing plant.</p> <p>Strengthened understanding of fisheries legislation and responsible practices amongst artisanal fishers from fleets near three priority turtle nesting beaches. Study into national and international markets for sustainably caught fish (including farmed snapper from Chinandega) completed. Results fed into Activity 3.5.</p>	<p>Continue to support cooperative members to conduct communal annual mangrove reforestation days.</p> <p>Work closely with Fundación LIDER to address key challenges linked to production cycle for snapper, specifically with regards to procurement of fingerlings and water quality monitoring.</p> <p>Continue to reinforce links between project support to mariculture initiatives and commitments to sustainable fisheries and biodiversity conservation.</p>
<p>Activity 3.5 Support the development of linkages and equitable relationships that deliver livelihood benefits for coastal communities, through the facilitation of dialogue between target community groups and businesses to identify opportunities and barriers to cooperation. Support participatory development of market systems to strengthen market linkages for groups from two sectors; nature-based coastal tourism service providers and fishers who have committed to responsible fishing practices from the northern Pacific of Nicaragua.</p>	<p>PMSD specialist facilitated training in PMSD approaches delivered to project team and market systems selection process (Y2). Priority being given to improving fisheries-related livelihood strategies, until tourism sector recovers. PMSD specialist facilitated participatory market mapping process (Y3) focused on market for snapper in Chinandega. Target interventions identified.</p>	<p>Continue to support identified target interventions.</p>
<p><b>Output 4.</b> One critical area of turtle habitat obtains enhanced protection status, through appropriate legally binding agreements.</p>	<p>4.1 Area of priority habitat at Punta Venecia in Estero Padre Ramos Natural Reserve (EPR), with enhanced protection. (0.9km of hawksbill nesting</p>	<p>4.1 Viability analysis of alternative legal instruments for securing the property for conservation under Nicaraguan law completed in Y1. Bilateral usufruct contract restricting use of site to conservation and research drafted, agreed between parties and pending signature (Y3).</p>

	<p>beach; 28 hectares of coastal and riparian dry forest)</p> <p>4.2 Plan for implementation of the agreement endorsed by the Municipality, with fund-raising under way if needed.</p>	4.2 Evidence of progress relevant to this indicator is demonstrated under Output 3.	
4.1 Seek legal counsel to analyse the viability of alternative legal instruments for securing the property at Punta Venecia for conservation. Convene meetings with the private 'landowner' (legally it is a lease from the municipality, as this is coastal property) to discuss the options and review alternative contractual arrangements, together with the municipal authorities and the local Hawksbill Committee as appropriate. Negotiate a multi-party agreement to ensure long-term security of this critically important habitat, while providing satisfactory outcomes for the landowner, the neighbouring EPR communities and the municipality.		<p>Three alternative legal instruments identified, verified and shared with the landowner in Y1.</p> <p>Bilateral usufruct contract restricting use of site to conservation and research drafted, agreed between parties and pending signature (Y3).</p>	Sign legal agreement with landowner (Y4 Q1)
4.2 Invest in those elements of the agreement package which align with the central themes of this project, including building local capacity for the management of an upgraded centre for conservation and volunteer tourism, hiring legal services for drafting agreements, and providing support for enterprise development necessary to implement the agreement.		Evidence of progress relevant to this indicator is described under Activities 1.5, 3.2 and 3.3	Further needs and next steps will be defined once agreement is reached.

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

The project logframe was revised in Y2 and the following is the agreed version:

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p><b>Impact:</b> (Max 30 words) <b>Nicaragua's development planning for coastal and marine areas incorporates strategies to conserve natural capital and enable coastal communities to benefit from it sustainably.</b></p>			<p>That the security situation in Nicaragua is sufficiently stable for FFI to maintain operations.</p> <p>That proposed development of the Inter-Oceanic Canal will not adversely affect the receptivity of government and tourism sector leaders to information and recommendations emerging from the project.</p> <p>That adult populations of marine turtles in the Eastern Pacific region remain stable.</p>
<p><b>Outcome:</b> (Max 30 words)</p> <p><b>The economic and conservation values of Nicaragua's globally important marine turtles are recognised locally and nationally, providing benefits to coastal communities and decreasing threats to these species and priority habitats.</b></p>	<p>0.1: No. of decision makers, including those who lead the National Development Plan process, who have access to information relating to values of marine turtles and their habitats (target: 20 by End of Project).</p> <p>0.2: % of women and men from 10 target coastal communities who report an improved ability to meet essential household needs year round (target dependent upon community: 10-20% by EOP).</p> <p>0.3: % increase in number of women and men from 10 target coastal communities who consider live turtles to be a valuable asset</p>	<p>0.1 Minutes of meetings and email communications with decision makers; participant list at public seminar; public availability of information online.</p> <p>0.2 Socioeconomic surveys of coastal communities and key informant interviews (baseline at project start and at EOP), with data disaggregated by gender.</p> <p>0.3 Focus group discussions and surveys of community perceptions and behaviours (baseline at project start and at EOP), with data disaggregated by gender.</p>	<p>That decision makers, including those who lead the National Development Plan process, are willing to engage with us and that the Plan goes ahead.</p> <p>That there will be no major disruption to livelihoods in the project localities - through natural disasters, large-scale pollution, or national economic/social instability - and people are willing to report changes in their household income/status.</p> <p>That no events take place to affect the current market system for turtle products that would cause an increase in demand.</p>

	<p>compared to baseline (target: 15% by EOP).</p> <p>0.4: Km. of nesting beaches with enhanced protection of marine turtle nests (baseline: 30km; target: 40km by EOP).</p> <p>0.5: National tourism sector (tourism agencies, industry bodies and operators - including INTUR and CANATUR) are using marine turtles as a flagship species for tourism in Nicaragua by EOP.</p>	<p>0.4 Collation of data from turtle hatchery/tourism initiatives along Pacific coast.</p> <p>0.5 Promotional materials, events and public statements from tourism agencies, industry bodies and operators; online survey of CANATUR members.</p>	<p>That the majority of turtle hatchery/tourism initiatives adopt the guidelines developed by the project and share their data.</p> <p>That Nicaragua's tourism industry will not be affected by extreme natural disaster or widespread economic/social instability.</p> <p>That the positive relationships and attitudes of tourism agencies, industry bodies and operators towards turtle conservation will continue.</p>
<p><b>Outputs:</b></p> <p><b>1. Policies, plans, marketing and practice of tourism and associated coastal development are informed by an economic valuation of turtles as a tourism asset and increased knowledge about their conservation.</b></p>	<p>1.1 No. of tourism and coastal development policies, plans and strategic decisions which refer to the economic value of living turtles and demonstrate knowledge of best practices for conservation and community benefit (target: at least 5 by EOP).</p> <p>1.2 % of CANATUR members who have expanded coverage of community-based turtle tourism initiatives in their national and international marketing of Nicaragua (target: 5% by March 2020; 10% by EOP).</p> <p>1.3 No. of community-based turtle tourism initiatives being marketed nationally or internationally by CANATUR members (target: 5 by March 2020, 12 by EOP).</p>	<p>1.1a Published report on economic and social-cultural values of Nicaragua's Pacific coast turtles and associated communications materials.</p> <p>1.1b Tourism sector codes of practice, public statements and marketing strategies.</p> <p>1.2 CANATUR survey of its members.</p> <p>1.3 Records of FFI discussions with community groups; CANATUR surveys of their members.</p>	<p>That the local and national tourism sector will remain open to integrating marine turtles into their activities and marketing.</p> <p>That the valuation study will confirm scope for increased community-based turtle-related tourism.</p> <p>That public awareness and support for marine turtle conservation is influenced by parallel initiatives (including awareness raising campaigns) led by FFI through our broader marine turtle conservation programme.</p>

<p><b>2. Nicaragua’s technical capacity relevant to turtles, hatchery management, coastal/marine ecosystems and low impact coastal development practices is increased, through training in these disciplines and strengthening of national and regional networks.</b></p>	<p>2.1 No. of graduates/undergraduates who complete fieldwork research projects in coastal areas (target 24 students; 6 per year x four years, at least 40% women).</p> <p>2.2 No. of people (tourism professionals, community based tourism service providers, coastal municipal staff, sustainable tourism students, conservation professionals) complete coastal community-based ecotourism module (target 45 people; 15 per year x three years, at least 40% women).</p> <p>2.3 No. of turtle hatchery/tourism initiatives implementing best practice guidelines (target 12 by Sept 2019)</p> <p>2.4 NTCN has a clear strategy, its members have increased access to relevant guidance and information, are in regular communication with peers regionally and nationally, and collaborate on issues as relevant (by EOP).</p> <p>2.5 No. of people (professionals, service providers, authorities, students) integrating learning from national and regional experience and using knowledge gained into Nicaraguan initiatives (target 32 by EOP)</p>	<p>2.1 Fieldwork research project reports. Participant data disaggregated by gender.</p> <p>2.2 Course materials; participation records (participant data disaggregated by gender).</p> <p>2.3 Best practice guidelines for turtle hatchery/tourism initiatives; participation records for training in best practice guidelines; verification by project staff of implementation of guidelines.</p> <p>2.4 NTCN strategic plan; NTCN meeting minutes and public statements; analysis of traffic on national/regional turtle network listservs and social media groups (WhatsApp and Facebook).</p> <p>2.5 Survey and focus group discussions at EOP to assess use and application of knowledge gained (data disaggregated by gender).</p>	<p>That tourism professionals see the potential benefits of community based ecotourism and attend training.</p> <p>That the majority of the hatchery/tourism initiatives will be open to receiving technical support and the adoption of best practice guidelines, and will share the data they collect.</p> <p>That wider activity and collaboration within the NTCN will be facilitated and supported by Network members.</p> <p>That the current/future employment or roles of training attendees enable them to apply the learning they have gained.</p>
<p><b>3. Female and male community members adjacent to turtle</b></p>	<p>3.1 No. of community members trained in relevant technical skills</p>	<p>3.1 Records of community meetings, workshops and other</p>	<p>That the current positive attitude, locally and nationally, to developing</p>

<p><b>nesting beaches have the skills and opportunities to engage in sustainable livelihoods.</b></p>	<p>and provided with support for SME development or employment (target: 180 by March 2019; 360 at EOP; 60% women).</p> <p>Target groups/enterprises include:</p> <ul style="list-style-type: none"> <li>• Tourism service providers (mostly female) - guiding, hatchery visits, catering, accommodation, weaving/handicrafts, honey.</li> <li>• Seasonally employed turtle beach patrollers seeking skills for their off-season livelihoods (mostly male).</li> <li>• Fishers (mostly male), cockle harvesters and processors (mostly female), snapper rearing group.</li> </ul> <p>3.2 No. of sustainable fisheries and community based tourism enterprises with robust business models (target: 6 by Sept 2019; 12 by EOP).</p>	<p>training events (participant data disaggregated by gender, locality and type of livelihood); Records of follow-up meetings with beneficiaries.</p> <p>3.2 Business plans and financial records of enterprises; fair contracts between community enterprises and other market actors (input suppliers, traders, hotels, travel agencies). Supplemented by photos of the enterprises and interviews with tourists and other service users.</p>	<p>sustainable livelihoods and new enterprise partnerships is maintained.</p>
<p><b>4. One critical area of turtle habitat obtains enhanced protection status, through appropriate legally binding agreements.</b></p>	<p>4.1 Area of priority habitat at Punta Venecia in Estero Padre Ramos Natural Reserve (EPR), with enhanced protection. (0.9km of hawksbill nesting beach; 28 hectares of coastal and riparian dry forest)</p> <p>4.2 Plan for implementation of the agreement endorsed by the Municipality, with fund-raising under way if needed.</p>	<p>4.1 Binding long-term agreement in place with private landowner.</p> <p>4.2 Plan, with letter of support from Municipality. Funding proposals, if relevant.</p>	<p>That the landowner will maintain his interest in reaching an agreement to ensure long-term conservation.</p> <p>That additional funding needs, related to the establishment of formally protection of the land, can be raised well before the current agreement expires in 2022.</p>

## Activities

- 1.1 In collaboration with partners from tourism sector (tourism agencies, industry bodies and operators - including CANATUR - governmental authorities, and FIU) and turtle conservation groups, design methodology and implement valuation study into the economic and social-cultural values of Nicaragua's Pacific coast turtles. Share preliminary results with partners for feedback.
  - 1.2 In collaboration with tourism and turtle conservation partners, develop communications plan for the dissemination of key information from the study to target audiences (decision makers, tourism sector, coastal communities). Contract the design and production of appropriate and agreed communications materials.
  - 1.3 Share finalised report and disseminate communications materials amongst tourism and turtle conservation partners, other stakeholders and target audiences (including coastal municipal authorities, MARENA, leaders from target coastal communities, media agencies) and monitor impact.
  - 1.4 Engage with government authorities to inform relevant development policy formulation and planning processes in order to promote the integration of the conservation of turtles and their coastal/marine habitats into these national instruments.
  - 1.5 Collaborate with FIU, tourism chambers/associations, municipal authorities and communities to assess existing turtle/marine tourism near project locations and identify i) potential improvements to existing initiatives, ii) potential new community-based initiatives and iii) potential links between local product providers, national operators and international supply chains.
  - 1.6 In collaboration with FIU, facilitate a workshop to assist CANATUR and governmental authorities to develop a strategy to package and promote community-based turtle/marine tourism initiatives in specific markets. Support delivery of strategy where appropriate, for example in developing links between local product providers and national / international operators and in guiding tourism product plans so that they follow technical, environmental and social good practice and strengthen links between livelihoods and custodianship of turtles and their habitat.
  - 1.7 Share lessons learned from the project through two publications; one technical report in English and a more popular publication in Spanish.
- 
- 2.1 Through links with universities in Nicaragua, support undergraduate and graduate students to undertake research projects or internships on turtles, marine/coastal conservation, community-based ecotourism, sustainable livelihoods and socio-economic issues, either as part of their studies or to gain experience after graduating. Track their post-internship professional development.
  - 2.2 Through partnership with FIU, develop and deliver a module on coastal community-based ecotourism, including a field trip to observe turtle tourism and low-impact coastal development - to inform and influence current and future professionals in tourism, coastal development, municipal planning, and natural and social sciences. Deliver the module at least three times; incorporate into at least one university course covering sustainable tourism (UAM) and adapt for delivery as a stand-alone course for key professionals. Monitoring subsequent use of knowledge and skills.
  - 2.3 In consultation with NTCN members, authorities and tourism stakeholders, develop best practice guidelines (including technical, environmental and social responsibility considerations) for the management of turtle hatcheries linked to coastal tourism enterprises. Disseminate the guidelines and provide training to managers and staff of turtle hatchery/tourism initiatives in their implementation.
  - 2.4 Facilitate and support strategic development of the NTCN. Provide ongoing support to NTCN members, helping them to organise collective statements and action on issues affecting turtles, facilitate data sharing, provide expert services to communities, authorities and the private sector, connect with regional peers and raise funds.

2.5 Organise a study visit to Costa Rica for tourism and conservation professionals, representatives of CANATUR and community members to learn from examples of sustainable turtle tourism and community-based ecotourism from peers and stakeholders in that country.

3.1 Conduct a capacity and training needs assessment for women and men from target coastal communities (including for seasonally-employed turtle beach patrollers, to identify opportunities to improve their off-season livelihoods and therefore the value and security of being a turtle patrol professional). Based upon this assessment, develop tailored training plans for target groups across a variety of sectors (including nature-based tourism service providers and sustainable fisheries).

3.2 Provide tailored technical skills training and SME development support to assist community groups to establish or improve enterprise, employment and service provision opportunities related to coastal tourism, especially those benefitting women and vulnerable groups. Target groups include; women weavers using waste plastic bags as raw material (25 people in 2 communities), tourism guides (51 in 4 communities), honey producers who also receive tourists (28 in 3 communities), a cooperative operating a turtle hatchery (20 people in 1 community). Areas of training and support include; hospitality and visitor services, catering, guiding, product innovation/improvement (including development of trails and circuits, handicrafts) use of the Chacocente Visitor Centre, cooperative establishment, business plan development, financial management, marketing.

3.3 Support development of a volunteer-tourism enterprise at EPR, in line with a business plan which ensure a strong community role in decision-making, service provision and economic benefits.

3.4 Through partnership with Fundación Líder, provide tailored technical skills training and SME development support to assist community groups to establish or improve enterprise, employment and livelihood opportunities related to sustainable fisheries, especially those benefitting women and vulnerable groups. Target groups and areas of support include:

3.4a Assist at least four community groups in EPR to establish concessions for custodianship of mangroves and sustainable collection and cultivation of mangrove cockle (*Anadara similis*), following a model already proven in Chinandega District, thereby protecting juvenile and adult hawksbill habitat and providing income. Support the cooperatives to set up a plant for processing and purifying cockles, which adds substantial value.

3.4b Assist at least one community group in EPR to establish a snapper rearing facility, with attention to both ecological and social costs and benefits, and conduct monitoring as per environmental permits. This follows a model already proven in the EPR and will provide income to individuals who have changed from destructive practices (former egg poachers and blast fishers).

3.4c Support fishers from four communities who have committed to responsible fishing practices and are championing locally the elimination of blast fishing and other illegal practices harmful to turtles. Areas of training and support include; improved fish handling and storage, negotiation skills, access to higher value markets, promotion to hotels based on commitment to conservation, business plan development. This extends an FFI initiative on Nicaragua's southern Pacific coast, where blast fishing is less prevalent, which generated increased income while tackling threats to both turtles and fisheries.

3.5 Support the development of linkages and equitable relationships that deliver livelihood benefits for coastal communities, through the facilitation of dialogue between target community groups and businesses to identify opportunities and barriers to cooperation. Support participatory development of market systems to strengthen market linkages for groups from two sectors; nature-based coastal tourism service providers and fishers who have committed to responsible fishing practices from the northern Pacific of Nicaragua.

4.1 Seek legal counsel to analyse the viability of alternative legal instruments for securing the property at Punta Venecia for conservation. Convene meetings with the private 'landowner' (legally it is a lease from the municipality, as this is coastal property) to discuss the options and review alternative contractual arrangements, together with the municipal authorities and the local Hawksbill Committee as appropriate. Negotiate a multi-party agreement to ensure long-term security of this critically important habitat, while providing satisfactory outcomes for the landowner, the neighbouring EPR communities and the municipality.

4.2 Invest in those elements of the agreement package which align with the central themes of this project, including building local capacity for the management of an upgraded centre for conservation and volunteer tourism, hiring legal services for drafting agreements, and providing support for enterprise development necessary to implement the agreement.

### Annex 3: Standard Measures

**Table 1 Project Standard Output Measures**

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	Total to date	Total planned during the project
4A	Number of undergraduate students to receive training *	Y1: 9 female, 5 male. Y2: 2 female, 2 male. Y3: 24 female, 14 male	Nicaraguan	14 (6 + 8)	4	38 (4 + 2 + 20 + 12)		55 (=14+4+37 i.e. we have not double-counted a student who received training in both Y2&Y3)	44 (24 + 20)
4B	Number of training weeks to be provided.	N/A	N/A	2 weeks (one training of 4 days, three trainings of 2 days)	2 weeks	3 weeks (two 1-day trainings, one 3-day on-site training, ongoing training for longer-term research project, two feedback days)		7 weeks	8 weeks

6A	Number of people to receive other forms of education/training (which does not fall into categories 1-5 above) *	Y1: 158 female, 234 male. Y2: 104 female, 147 male. Y3: 104 female, 147 male.	Nicaraguan	392 (NB some attended more than one training)	251	251		251 (avoiding double counting)	400 (25 + 15 + 360)
6B	Number of training weeks to be provided.	N/A	N/A	3 weeks	4 weeks	4 weeks		11 weeks	8 weeks
7	Number of (e.g., different types - not volume - of material produced) training materials to be produced for use by host country.	N/A	N/A	1 (draft tourism course training materials in English)	0	2 (revised tourism course materials; hatchery guidelines)		2	3 (tourism course materials; hatchery management guidelines x2)
9	Number of species/habitat management plans (or action plans) to be produced for Governments, public authorities, or other implementing agencies in the host country.	N/A	N/A	0	0	0		0	1
10	Number of individual field guides/manuals to be produced to assist work related to species identification, classification and recording.	N/A	N/A	2 field guides (EPR Bird Guide and Ethnobotanical Guide)	0	0		2	4
14A	Number of conferences/seminars/workshops to be organised to present/disseminate findings.	N/A	N/A	0	0	0		0	1
14B	Number of conferences/seminars/workshops attended at which findings from Darwin project work will be presented/ disseminated.	N/A	N/A	1	1	0		2	4

20	Estimated value (£'s) of physical assets to be handed over to host country.	N/A	N/A						
23	Value of resources raised from other sources (e.g., in addition to Darwin funding) for project work.	N/A	N/A						

## Table 2 Publications

Whilst, no publicly accessible publications were produced in the last year, the project team were due to make two oral presentations at the cancelled International Sea Turtle Symposium in Cartagena (scheduled for 14-20 March 2020):

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)
Evaluation of the effectiveness of sandbags for the incubation of clutches of olive ridley, <i>Lepidochelys olivacea</i> , in the Pacific coast of Nicaragua,	Oral Presentation International Sea Turtle Symposium Session: Nesting Biology	Heydi Salazar, José Urteaga, Velkiss Gadea, Daniela Padilla, Juan Berroterán, Carmen Guevara	Female	Nicaraguan	International Sea Turtle Society.	<a href="https://internationalseaturtlesociety.org/wp-content/uploads/2020/03/2020-ISTS-Program_FINAL_forPrint_updated_DA_2.pdf">https://internationalseaturtlesociety.org/wp-content/uploads/2020/03/2020-ISTS-Program_FINAL_forPrint_updated_DA_2.pdf</a>
Are our livelihood project a whack-a-mole game? Evidence from the demographic and socio-economic characterisation of households that engage in sea turtle egg collection near hawksbill nesting areas in the Pacific of Nicaragua and El Salvador.	Oral Presentation International Sea Turtle Symposium Session: Social, Economic & Cultural Studies	José R. Urteaga, Michael Liles, Velkiss Gadea, Ani Henriquez, Heydi Salazar, Ingrid Yañez, Alexander Gaos	Male	Nicaraguan	International Sea Turtle Society.	<a href="https://internationalseaturtlesociety.org/wp-content/uploads/2020/03/2020-ISTS-Program_FINAL_forPrint_updated_DA_2.pdf">https://internationalseaturtlesociety.org/wp-content/uploads/2020/03/2020-ISTS-Program_FINAL_forPrint_updated_DA_2.pdf</a>

## Annex 4 Onwards – supplementary material (optional but encouraged as evidence of project achievement)

### Checklist for submission

	Check
<b>Is the report less than 10MB?</b> If so, please email to <a href="mailto:Darwin-Projects@itsi.co.uk">Darwin-Projects@itsi.co.uk</a> putting the project number in the Subject line.	Y
<b>Is your report more than 10MB?</b> If so, please discuss with <a href="mailto:Darwin-Projects@itsi.co.uk">Darwin-Projects@itsi.co.uk</a> about the best way to deliver the report, putting the project number in the Subject line.	N
<b>Have you included means of verification?</b> You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	Y
<b>Do you have hard copies of material you want to submit with the report?</b> If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	N
Have you involved your partners in preparation of the report and named the main contributors	Y
Have you completed the Project Expenditure table fully?	Y
Do not include claim forms or other communications with this report.	