



Darwin Initiative Main Annual Report

Darwin Initiative Project Information

Project reference	27-010
Project title	Community-led stewardship and conservation of the Ometepe Island Biosphere Reserve
Country/ies	Nicaragua
Lead organisation	Fauna & Flora International (FFI)
Partner institution(s)	Biometepe (Cooperativa de Agroturismo Rural y Conservación Sostenible de la Biodiversidad de Ometepe R.L.) Network of Agro-ecological Producers of Ometepe (RAPO)
Darwin grant value	£ 299,496
Start/end dates of project	1 July 2020 – 30 June 2023
Reporting period	Annual Report 2: 1 April 2021 – 31 March 2022
Project Leader name	Co-Project Leads: Angelica Valdivia - FFI Country Director, Nicaragua, and Alison Gunn, FFI Senior Programme Manager, Central America
Project website/blog/social media	https://www.fauna-flora.org/projects/improving-sustainable-use-natural-resources-ometepe
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1. Project summary

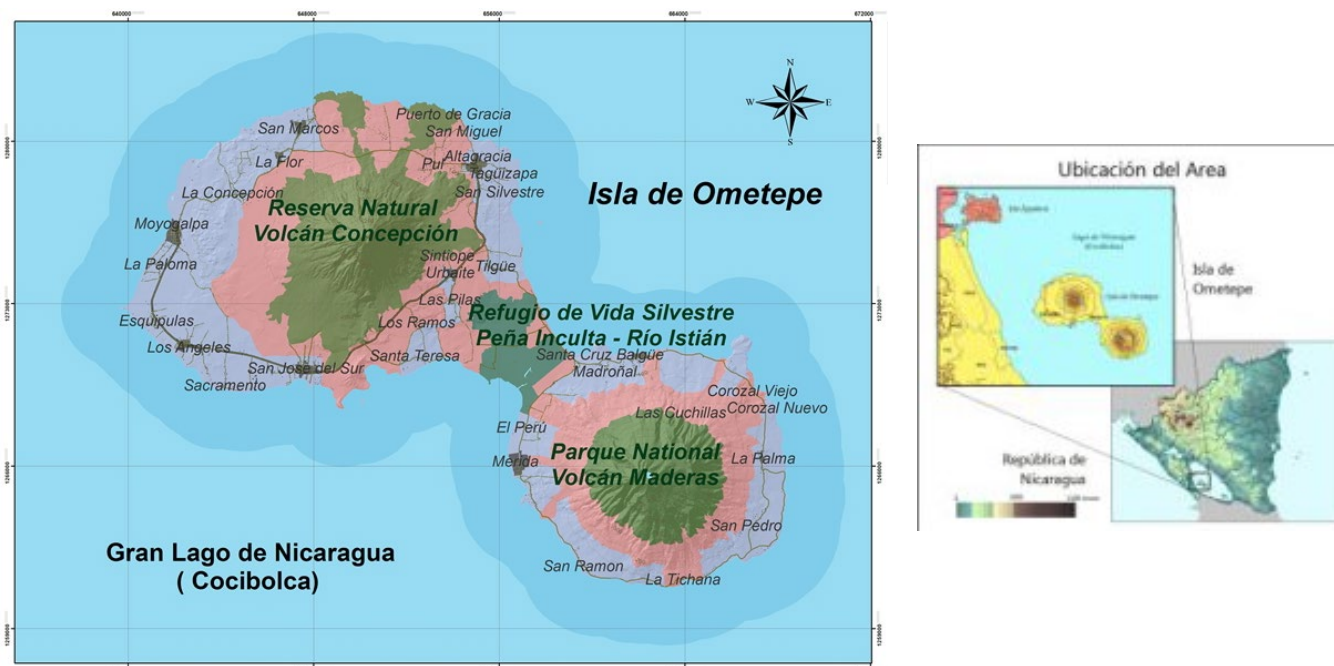
Ometepe Island is a UNESCO Biosphere Reserve and Important Bird Area, whose wetlands and humid and dry forests support ~150 bird species (Morales, 2007). Biodiversity-rich habitats cover 32% of the island, providing ecosystem services to c.42,000 people, including water and regulating services for small-scale subsistence farming on which >50% of islanders rely. Whilst Biosphere Reserve status has raised local awareness of ecological dependencies and grassroots commitment to conserving Ometepe's natural heritage is strong, the Reserve's formal governance structures are not active.

Clearance of land for agriculture and illegal extraction of forest resources threaten Ometepe's wildlife - including its globally important population of yellow-naped parrot (listed as Critically Endangered in 2021) - and ecosystem services that underpin local livelihoods. Since 2001, Ometepe has lost an average of 58 hectares of forest cover (0.9%) per year (Global Forest Watch, 2018), with dry and riparian forests particularly under threat and clearance of moist forest (>400masl) observed for the first time. Threats have worsened since 2018, as socio-political instability has hindered already-weak environmental law enforcement and decimated tourism, prompting many islanders to return to farming. Worsening economic conditions exacerbated by the global Covid-19 pandemic, where rural poverty is already high (UNDP, 2019), are also contributing to an uptick of poaching of iguanas and parrots for trade (Urtecho, 2019).

Livelihoods and food security are further at risk due to unpredictable weather patterns and Ometepe's vulnerability to increasingly frequent natural disasters (FAO, 2015; Herrera, et al. 2018).

Poor yields and lack of knowledge amongst farmers on how to improve production drive forest clearance in an effort to grow more.

Fauna & Flora International (FFI) has been working across the Ometepe Island Biosphere Reserve strengthen local capacity for biodiversity conservation and the sustainable management of natural resources. Whilst previous FFI-supported agroecological production has produced measurable benefits for 75 farming families - in year-round production and resilience to local impacts of climate change (Mena, 2018) - these were as yet insufficient pre-project to foster new social norms and promote widespread uptake of agroecological production across the island.



2. Project stakeholders/ partners

This year we continued to strengthen relationships through the formal FFI partnerships in this Darwin Initiative project, which include:

Biometepe (Cooperativa de Agroturismo Rural y Conservación Sostenible de la Biodiversidad de Ometepe R.L.): Biometepe is FFI's main local project partner. Biometepe is a community cooperative founded in 2018 by leading local conservation and tourism professionals from Ometepe (many of whom have been collaborating with FFI over the last decade). The organisation is focused on biodiversity conservation, sustainable livelihoods, environmental governance and conservation tourism on the island.

In 2019 (pre-project), FFI and Biometepe signed a 3-year Memorandum of Understanding outlining the technical scope of our partnership and associated responsibilities. Both parties see this as a longer term collaboration and our institutional MoU is due for renewal in October 2022.

Biometepe's role in this Darwin-funded project has been formalised through annual sub-grant agreements – for year 2 the agreement was signed by FFI and Biometepe in March 2021 (see Annex 4). In Y1, FFI undertook a Partner Due Diligence process, including a Finance and Governance review, and has been working with Biometepe to support organisational capacity development in line with the associated needs assessment, thereby helping to ensure successful project delivery.

Biometepe technical specialists and field staff lead many of the project's field-level conservation and biological monitoring activities, alongside the provision of agroecological extension support to farmers and community outreach. Throughout Y2 of the project, Biometepe staff have worked closely with the FFI project team to plan and adaptively manage project activities. Biometepe also supports FFI in monitoring progress and impact of project interventions. Biometepe's President (female) is a member of the project's Steering Committee.

Network of Agroecological Producers of Ometepe (RAPO): The 'Network of Agroecological Producers of Ometepe' (RAPO) was formed in 2017 and has an active membership of 25 farmer families (seven women-led) from five farming communities across the island. RAPO aims to pioneer and promote sustainable production compatible with conservation and the experiences of RAPO's

farmers in trialling new agroecological practices for Ometepe informed the design of the project's approach.

RAPO is a key platform for fostering farmer-to-farmer learning and to promote uptake of agroecological practices amongst new farmer families through this project. The Network hosts bimonthly meetings of its member farmers, which - alongside frequent farm visits/exchanges - provide a forum for members to share, discuss and analyse their experiences, access training, and demonstrate the economic and environmental benefits of agroecological approaches to other farmers. RAPO also has a role in the project as a platform through which Ometepe's agroecological farmers can foster alliances and linkages with local markets for the ecological produce being harvested.

Additional collaborations: The following stakeholder groups, organisations and government departments, not listed as formal project partners, have also collaborated on the project in Y2:

Nicaraguan government departments: The project aligns with national government strategies to increase food security and improve farm productivity, promote conservation, and encourage sustainable production and agroecology. FFI's agreed annual workplans with six key Nicaraguan government departments (signed in March 2020, March 2021 and April 2022) encompass the development of joint strategies and activities for biodiversity conservation and the promotion of agroecology on Ometepe. Key government departments for this project are: **MARENA** (Ministry of Environment and Natural Resources), **INTA** (Institute of Agricultural Technology), **INTUR** (Institute for Tourism), **INIFOM** (Institute for Municipal Development), and **MEFCCA** (Ministry of Family, Community, Cooperatives & Associative Economy). The agreed workplans with these departments for 2022 are provided in excel format (one spreadsheet per department, in a single Excel file) in Annex 4. During Y2, three meetings were held with INTA to plan the coordination between INTA and the project partners in supporting agroecological farmers. Relevant applications for permits for wildlife research and conservation activities on Ometepe (with emphasis on yellow-naped parrot and migratory birds) were submitted to MARENA and issued in October 2021 for the period October 2021 to October 2022 (see Annex 4).

Drinking Water Committees ('CAPs'): Communities located around the fringes of Ometepe's Maderas Volcano are supplied with drinking water from upstream natural water sources of the Maderas Volcano National Park through a network of aqueducts. Drinking Water Committees (nine 'CAPs' in total, one per community) are in charge of the drinking water system and are responsible for the administration and collection of tariffs, as well as maintenance and improvements to the supply network. However, the CAPs have not previously had the capacity to conduct adequate monitoring of water quality/flow. Through the project, FFI is helping the CAPs to develop and implement freshwater monitoring protocols, to inform improved management of upstream water catchments and to strengthen communities' understanding of upstream ecosystem services and benefits.

Antonio de Valdivieso International University (UNIAV): In September 2020, FFI entered an agreement with UNIAV to support collaborative scientific research and student placement projects linked to species and ecosystem conservation in the Ometepe Island Biosphere Reserve (a copy of the agreement was provided as a supporting document to our Y1 Annual Report).

Self Help International (SHI) is a US-registered non-profit organisation working to alleviate poverty and promote self-reliance by assisting the rural poor, small-scale farmers and related enterprises. In April 2020, FFI and SHI signed a 2-year Memorandum of Understanding focused upon our common goals to promote sustainable agriculture amongst Ometepe's farmers, contributing to the welfare of farming families, with a focus on those most vulnerable to the impacts of climate change. In Y2, SHI continued to train Biometepe extensionists and farmers on quality seed production and maize seed selection, and established three plots for the production of high genetic quality seed to benefit more Ometepe farmers.

We also acknowledge the contribution of **Brooke America Central** (international NGO, headquartered in the UK and registered in Nicaragua) who are collaborating with Biometepe and FFI to maximise our combined potential to contribute to biodiversity conservation, sustainable natural resource use, and the welfare of families and their working equines on Ometepe. In Y2, Brooke continued to collaborate, training Biometepe extensionists and farmers on the health and welfare of working animals.

3. Project progress

Project management: Two main project planning meetings were held in Y2 (in August and December 2021), to review work plans and priorities in accordance with the activities, indicators and schedule set out in the project logframe. These meetings involved key project staff and partners – i.e. four FFI staff members, four members of the lead partner Biometepe, plus representatives of RAPO and four representatives of the Ometepe Water Committees (CAPs). The smaller project Steering Committee also continues to oversee adaptive management of the project and coordination between project partners and with government and academic institutions and other project stakeholders.

3.1 Progress in carrying out project Activities

Output 1. Community-led forest protection and wildlife conservation strengthened

Activity 1.1 Strengthen and replicate existing community-led forest protection efforts on Ometepe, building protocols and incentives for groups, farmers and young people involved in community-led patrols.

Four “Community Commissions” for forest protection on Ometepe were established in Y1. During Y2, through the coordination of the **four Community Commissions** (composed of **30 members**, 45% women) carried out a total of 40 forest protection and fire prevention patrols per month for 6 months, **240 patrols in total**. In Y2, to strengthen forest protection, they increased the area patrolled by 200 ha and 2 new communities were added, reaching a total of **2,150 ha of forest under protection**, prioritising key sites for the conservation of the Critically Endangered yellow-naped parrot (YNP) population (Mérida/Santa Cruz, Balue/Madroñal, La Palma/Corozal, Peña Inculca, Las Cuchillas and Pull - the latter being the two new communities). In collaboration with local authorities (including representatives of the local police and MARENA), the interest in working in coordination was maintained during this Y2, highlighting within their records the contribution to a significant reduction in the rates of forest fires and illegal logging of timber trees compared to 2019 and 2020. It should be noted that analysis of monitoring data indicates a reduction in wildlife poaching levels of 62% in patrolled forest areas compared to 2020. The Commissions also participated in the annual YNP population census, led by FFI and Biometepe in July 2021.

Activity 1.2 Reforest four priority sites through propagation of seedlings in two community-run nurseries and planting of native forest/fruit trees (11 species /12 varieties).

The project has supported **three community-run agroforestry nurseries** for the propagation of native forest and fruit trees for reforestation. During Y2, **20 hectares** were reforested in the Peña Inculca Wildlife Refuge (**8,000** native forest trees and plants planted under the system of dispersed trees and natural regeneration, where the undergrowth is protected with wire fences to prevent damage from animals), in addition to the monitoring and management of previously planted plants. Also during Y2, the project supported private farmers to plant **17,794 native forest and fruit trees** in 38ha of their agroecological plots (NB. unfortunately during this period there was a 32% mortality rate of seedlings planted this year, mainly due to prolonged droughts during the planting season). In total so far in the project, 13,500 plants were planted in Y1 and 17,794 in Y2, for a total of **31,294** native forest and fruit trees across 58 ha, involving a total of **150 farmers**, of which 40% are women. Native forest tree species (including species of *Gmelina*, *Cedrela*, *Swietenia*, *Morus*) along with other forage plants and fruit tree species (e.g. citrus, avocado, mango, papaya) focusing on species of ecological importance to wildlife, including nesting and foraging parrots, have been planted in the different areas. Tree seedling survival rates are at 68% - at present, 21,415 plants are being monitored.

Activity 1.3 Strengthen the protection and ecological monitoring of the yellow-naped parrot population on Ometepe, through community patrols and incentives.

Ometepe hosts one of the largest and densest remaining populations of Critically Endangered yellow-naped parrots (YNP) in its range. FFI and Biometepe support community-led protection and monitoring of nests and habitat, as well as an annual census of the Ometepe YNP population.

Population census: In July 2021, FFI and Biometepe biological monitoring specialists conducted a technical refresher through training on monitoring techniques, data collection and data confidentiality for the YNP population census (28 local people trained). The design, methods and effort of the 2021 annual population census was consistent with that applied in Ometepe over the past three years.

The census was conducted in July 2021 and confirmed a count that recorded **862** individuals at the four sites conducted (three within the Maderas Volcano National Park and one in the Peña Inculca Wildlife Refuge). These data were thoroughly analysed with the previous counts as they show a slight decrease in the population in relation to 2020. 28 young people were involved in the census, 14 of whom are members of the community commissions, 30% of whom are women.

Nest monitoring: During Y2, FFI provided ongoing technical training to the Biometepe team in species conservation, ecology and behaviour, as well as associated monitoring and data analysis (recognising the role of Biometepe staff in multi-disciplinary data collection, statistically robust performance data sampling and analysis methods). YNP nest monitoring (2021-2022 nesting season runs from November to April) was conducted in line with the combined protocol for YNP and neotropical migratory bird monitoring developed in Y1. 100 nests were located and monitored - as a preliminary result we have **65 active nests** and **92 chicks protected**, with a percentage of poaching in the protected nests of 10%, which was an increase compared to 7.7% in the previous season (2020-21).

Nest/habitat protection: Biometepe continues to lead nest protection. Monitoring data, which includes the identification of trees with nesting activity, is used to inform the effort and location of community-led YNP protection patrols. Patrol teams are made up of four community members accompanied by three Biometepe field staff. The timing and locations of the patrol routes (~2 km per route) were designed to maximise proximate protection and deter illegal poaching activity at the four priority YNP nesting areas. FFI and Biometepe are also working with local farmers, farming communities and groups to protect parrot nesting sites on cultivated land (e.g. within shade coffee plantations). Work continues with **15 private farms**, as well as the indigenous community of Peña Inculca and the Carlos Díaz Cajina agricultural and rural tourism cooperative, located in Maderas Volcano National Park, to help them identify and protect roosting and nesting trees, both from the threat of poaching and to ensure that farm management (e.g. tree pruning) does not affect known nesting holes. The patrol teams monitor each nest until the nestlings are recorded as leaving the nest, and coordinate with the Altagracia municipal police to report any signs of illegal poaching activity. This activity involves **24 community members** of which 10 do not belong to the community commissions. It is planned to include two more communities in the nesting monitoring by the end of 2022.

Activity 1.4 Train three community members in MoSI protocols and conduct annual monitoring of overwintering neo-tropical migratory birds.

In Y1, protocols for community participation in monitoring overwintering survival of migratory birds (MoSI) on Ometepe were adapted from standard [methods](#). In November 2021, **MoSI stations** were established at Pena Inculca and Finca Magdalena. A refresher training workshop delivered on the use of the MoSI protocol and biosecurity of migratory birds (**8 community members trained**). Monitoring of migratory birds was carried out in November and December, with the participation of 22 local people (see photo in Annex 4). However, due to the current national context, the consignment of banding materials could not be obtained and the monitoring was suspended for the rest of the months in which migratory birds are in the area, so as not to generate stress on the birds which are not being banded. We will continue to monitor the migratory birds and to carry out spot counts, as long as banding material is allowed into the country.

Activity 1.5 Design protocols for farmer-led monitoring of birds, insects (including pollinators) and other wildlife, and support their implementation on farmers' cultivated and forested lands.

The project team, led by FFI's Biological Monitoring Specialist, made adjustments to the farmer-led bio-monitoring protocol so that it can be easily applied by farmers, even after the end of the project, as it will allow them to measure the health of their plots and make amendments to management practices as necessary (the updated monitoring protocol is attached in Annex 4).

Based a sample of 100 farmers, 44% found soil quality to be Good and 56% Fair ('Good' being considered when the soil has high levels of organic matter and nutrients and intense and diversified biological activity). The project team are planning a workshop for Y3, to share the types of species found in the soil that have improved soil health and quality, and to find out which variables farmers will continue to use and monitor from their perspective after the end of the project.

On-farm monitoring was carried out by farmers in 11 communities, with the **participation of 48 farmers**. An average of 16 monitoring sessions have been conducted per farmer to date, with a

total 768 monitoring records collated. The monitoring of beneficial insects and pollinators focused on bees, wasps, ants, flower flies, butterflies and beetles, and among the beneficial species found in the biodiversity of the farms were *Mantis religiosa*, *Sarantontón* (ladybird), and *Chrysopas* or lion aphid. In addition, 138 bird species (32 migratory species) have been recorded, with species such as *Sttacara strennus*, *Calocitta formosa*, *Pitangus sulfuratus*, *Columbina Inca*, *Myiarchus tyrannulus*, *Melanerpes Hoffmannii*, *Cathartes aura*, *Coragyps atratus* and *Amazona auropalliata* as good examples as indicators of good health of the ecosystems of the farms. An initial report is provided in Annex 4.

Activity 1.6 Strengthen community engagement in monitoring freshwater quality/flow, updating and implementing protocols in collaboration with existing network of Drinking Water Committees.

During Y2, FFI has been working on strengthening the capacities of the CAPs to implement the freshwater monitoring protocol, identify macroinvertebrate species, develop strategies to improve water catchment and play a leading role in engaging the wider community in the conservation of ecosystems and freshwater sources. This work is responding to the interests and priorities of the CAPs – that they understand more about the importance of environmental protection; that the monitoring protocol and technology is simple and easy for them to carry out; that the monitoring enables them to obtain information on water quality based on biological indicators; that it is easy to access, inexpensive and convenient in terms of time. In Y2, 12 members of the CAPs from 4 communities have been trained (nine of these were trained in Y1) and continue to collect information on the types of aquatic insects that are observed near and in the water catchment areas. Data is collected using the Survey 123 app, through which they take photos and geo-reference the sample sites. Data is collected once a month and by March 2022, 70 samples of macroinvertebrates had been taken and 22 invertebrate families had been identified. The second iteration of the catalogue of freshwater invertebrates for Ometepe is shared in Annex 4, as well as a technical lab ID analysis report of freshwater samples and a photo of CAP members conducting freshwater monitoring at one of the sites. At the end of the project, a simple manual for the identification of freshwater macroinvertebrates, and their value as biological indicators, is planned.

Activity 1.7 Create series of 6 targeted biodiversity conservation awareness messages for Ometepe, disseminate through talks at local schools, community events and other fora.

Following the creation in Y1 of 17 possible messages to raise environmental awareness about conservation of Ometepe, in Y2 these were tested and shortlisted down to six key messages: "*Our parrots, the pride of Ometepe*", "*Caring for our parrots is loving Ometepe*", "*Our parrots' home is the forest, not a cage*", "*Save our yellow-naped parrots, Ometepe place of many wonders*", "*Don't buy it, don't sell it*", "*If you love Ometepe don't buy parrots, Plant a tree*". Further testing via online digital platforms confirmed that the slogan "***Caring for our parrots is loving Ometepe***" was the most popular with 4,605 ratings, and is now the main slogan for awareness raising activities. This is being used alongside a seasonal message, which for the year 2022 will be: "*Caring for our Parrots is loving Ometepe; their home is in the forest not in a cage*". As well as being disseminated on social networks, these messages have been used in awareness-raising talks with schools, community theatres and a local expo fair held in conjunction with the Institute of Tourism (INTUR) and municipal authorities in October 2021, involving 334 adults and children (51% women).

Activity 1.8 Hold Ometepe contest in Youth Leadership in Conservation, to inspire and nurture future conservationists, and hold twelve youth fora using Arts and audio-visuals.

Building on the success of the Y1 contest calling on young people to create a 3-minute video highlighting the importance of yellow-naped parrots on Ometepe, which inspired many young people to participate and through Biometepe's digital platforms reached more than 10,000 reactions. This year, the project again promoted the use of digital platforms for environmental communication and held a competition aimed at young residents of the island between the ages of 16 and 35 years, inviting them to submit photographs of yellow-naped parrots which focused on the natural beauty of the species and promoted respect for their natural environment. [Entrants' photos](#) were linked to Biometepe's Facebook page and tagged with the hashtags *#ConcursoJuvenilPorLaConservacionDeLorosNucaAmarilla* and *#darwininitiative*. In total the submitted photographs were viewed more than 2,424 times, illustrating the reach of such initiatives.

During Y2, the project team also organised **two community theatre events** for young people, where the local play with a story focused on the conservation and welfare of the yellow-naped parrot is

performed. Approximately 120 people attended each event, totalling **240 participants** across the two events (~50% female).

Activity 1.9 Analyse changes in knowledge, attitudes and behaviours regarding biodiversity conservation on Ometepe amongst islanders.

Not scheduled for Y2. [REDACTED]

Output 2. Sustainable agroecological production adopted by Ometepe's farmers.

Activity 2.1 Deliver nine training modules for Biometepe's agroecological extensionist team on crop diversification, soil conservation, use of mycorrhizae, composting, agroforestry and biodiversity conservation.

During Y2, FFI continued to provide training to the Biometepe's agroecological team (two specialists, four extensionists). Training sessions have strengthened the team's knowledge on three new topics: **soil and water conservation practices for adaptation to climate change** - taught by FFI; **risk management for vulnerability to landslides**; and **use and interpretation of climate data** from Davis weather stations on the island of Ometepe, the latter two taught by the National Agrarian University in partnership with FFI. As a result of these trainings the team has developed more skills to transmit the acquired knowledge and strengthen the capacities of the farmers, putting into practice each of the knowledge in the different thematic areas. One way to measure the impact on knowledge has been the adoption by farmers of soil and water conservation practices for adaptation to climate change, as a result there is an improvement in production and productivity on the farms of the beneficiary producers, once the practices have been adopted.

Activity 2.2 Provide agroecological training and extension support to 200 farming households to improve productivity, competitiveness and ecological benefits, and reduce vulnerability to climate impacts.

Extension support: In Y2, **252 farming families have benefited** from the technical follow-up of the project's extensionists, with an average of **2 visits per month** to each producer, for a total of **504 visits per month**. The project is helping farmers to apply agro-ecological practices, including crop diversification, crop association, vermiculture, use of high-yielding varieties, crop rotation, agroforestry, incorporation of stubble, etc. The extensionist team also support farmers in the ongoing monitoring and adaptive management of the practices being applied.

As a result of the joint work plan with INTA, two meetings were held to plan activities and Biometepe participated in an agricultural fair where it exhibited its products and at the same time received advice from INTA on the introduction of high protein yielding varieties.

Training: To continue strengthening the knowledge of producers, **10 training workshops** were delivered to improve farmers' knowledge and skills on soil and water conservation practices for adaptation to climate change. These workshops were held in the months of February and March 2022, in 10 target communities, with the participation of a total of **172 producers** (120 men and 52 women). The main practices covered were: no burning, crop diversification, vermicomposting, use of high-yielding varieties adaptable to soil and climatic conditions, preparation of sulphocalcic broth, preparation of organic compost bins, and drawing of contour lines.

We are also supporting small-scale sustainable initiatives for the elaboration and commercialisation of bio-inputs, to reduce production costs, protect the environment and human health. At the same time, we are working to help farmers in the recording of production costs (inputs and sale prices) so that they are aware of the profit per item and can make better decisions when choosing crops to be cultivated, from both economic and environmental perspectives.

Activity 2.3 Provide beneficiary farmers with the tools, seeds and other resources necessary for the adoption of new biodiversity-friendly practices and technologies.

During Y2, support to farmers in the form of tools, seeds of improved varieties, and seedlings have been required and necessary for the adoption and improvement of production, in the context of the 'triple crisis' of Covid, the socio-political context and impacts of extreme weather events. We have worked in coordination with INTA to ensure that the seed varieties provided (for annual crops, as

well as fruit and forest plants/trees) are locally appropriate and recommended for Ometepe farmers - in terms of high nutritional value, ease of production, disease resistance and so on. This support, alongside training in the production of bio-inputs, forms part of FFI's joint workplans with INTA.

We have also acted to avoid farmer dependency on donated seed, by supporting local seed production by the farmers themselves. For example, one farmer who has engaged since the start of the project, is now offering high quality maize seed (a high protein variety certified by INTA and demonstrated to have good adaptability to different soil and climatic conditions) to 96 farmers in his area – his aim is to offer high quality seed at lower costs to his peers. By the end of the project there will be a **database of producers who have shared technologies, seeds and bio-inputs among their neighbours**.

Activity 2.4 Deliver fire awareness talks and training for farmers across at least ten communities on Ometepe.

During Y2, we continued to work together for the prevention of forest fires - as a collaboration between MARENA, FFI and Biometepe, a total of **4 awareness-raising talks** on the reduction of forest fires have been given to the beneficiary farmers of the project. More than 120 people (38% women) from 10 communities surrounding the Maderas Volcano National Park attended the talks. It is possible to appreciate the change in the behaviour amongst beneficiary farmers - 92% no longer burn to clear their land, thereby preventing the spread of fires.

A further **11 talks against forest fires** have been given in the wider community, in coordination with the authorities, 370 participants in total (35% women).

According to information provided by the authorities, no forest fires were reported or recorded this year (as was the case in Y1). However, the community-led patrols recorded one 10 ha site affected by agricultural burning. Field observations are being verified with remote sensing data from Global Forest Watch.

Activity 2.5 Support RAPO's bimonthly meetings and help Network members to design and deliver 6 training modules per year to encourage the adoption of agroecological practices.

The 'Network of Agroecological Producers of Ometepe' (RAPO) continues to be made up of 25 farming families, seven of them headed by women, from six farming communities on the island.

During Y2 FFI continued to support regular meetings of RAPO, and associated activities to strengthen knowledge and capacity of Network members and resilience of the organisation itself. A total of nine activities were carried out during the year, as a collaboration between RAPO, FFI and Biometepe. Key themes developed included:

- *Organisational strengthening*: support in the elaboration of a RAPO functions manual; support in the structuring of the RAPO operational plan; support in internal reorganisation processes (including election of a new board at its annual meeting in October 2021 – see meeting minutes in Annex 4); election of the commercialisation committee;
- *Market Systems*: survey of the agro-ecological production baseline; analysis of the market sub-sectors (e.g. for banana/cassava chips); analysis of process flows; elaboration of the costs; market analysis; market actors mapping (for banana);
- *Production and marketing of bio-inputs* (see Annex 4).

These RAPO meetings have provided important fora for farmers to share knowledge, experiences and lessons, especially as both the socio-political crisis and the pandemic have limited RAPO's potential for the marketing of its products (including to the tourism sector). Indeed, RAPO as a group is slightly demotivated, due to the crises they have faced. Discussions at these meetings have therefore focused on how to influence a market that has been severely affected by the crises, as well as how to support the Network's farmer members in developing plans for their farms and the application of agro-ecological practices, especially to increase food security and strengthen the local supply of fresh produce on the island.

Activity 2.6 Facilitate peer learning through farm open-days and exchange visits (>6 per year, including one visit to successful agroecological model in mainland Nicaragua).

During the period RAPO continued to assume its key role in the promotion of sustainable practices and the exchange of lessons between the members of the Network and other farmers in the surrounding area to adopt an agroecological approach. The committee and RAPO members

facilitated seven exchanges of experiences between farms in Ometepe and farms in the municipality of Tola in mainland Rivas (7 events, 210 participants, 35% women). These exchanges provide members with learning, lessons, share successes and challenges, address problems and find solutions among themselves.

Activity 2.7 Evaluate progress and impact through agricultural practices survey and participatory socioeconomic impact assessment of target households.

Whilst a full agricultural practices survey and socioeconomic impact assessment of target households was not scheduled for Y2 according to the project workplan, Biometepe (with the support of FFI) conducted a survey in Y2 of beneficiary farmers on their agricultural practices and to assess the socio-economic impact of the project on households. Through this survey, interviews with 40% of project beneficiaries were conducted (i.e. 100 out of 252 farm households) of which 30% were women. An English translation of the survey report is provided in Annex 4. The results highlight the following:

Farm plot size: All farms are small family farms, ranging in size from 0.35 ha to no more than 50 ha, with a typical area of 1.5 ha predominating in agroecological practices.

Land tenure: Currently 20% of farmers still rent additional land to meet their subsistence needs, as they do not have suitable soils, mainly for basic grains.

Implementation of practices and technologies: 90% of the farmers implement at least 3 agroecological practices on their plots of land. 95% of the farmers interviewed are aware of how agroecological practices allow them to maintain the biodiversity of their farms. 70% have been trained in at least 16 practices promoted by BIOMETEPE from the Agroecology programme. 86% of the 252 producers have reduced climate vulnerability by carrying out agroecological practices, by making changes in land use such as: No agricultural burning, incorporation of stubble and animal manure, crop diversification including reforestation with forest and fruit plants. Of beneficiary farmers surveyed: 92%, have stopped agricultural or forest burning, 90% employ crop rotation, 85% incorporate stubble, 77% have diversified their crops, 28% are vermicomposting, 74% are using companion planting; 54% are mulching to improve water retention of the soil. Agroforestry practices: 56% natural regeneration, 82% scattered trees, 2% forest plantations.

Area under different production systems: 55% of land on these farms is plantain or banana cultivation (up from 50% last year, especially in the communities of Altigracia - this could be due to greater demand for export of the banana crop to Central America). 21.5% is basic grains, vegetables and fruit (a reduction from 30% last year, perhaps due to the reduction in tourism, reducing the demand for and therefore trade in vegetables). 23.5% is forested (up from 20%).

Yields and profitability: In economic terms, during 2021, production yields were reduced due to: prolonged droughts, Covid pandemic, rising input prices. It is notable that the implementation of good agricultural practices helped producers to mitigate these effects and achieve production, reaching average profits on their farms of 65% in at least 55% of producers, 28% of producers have average profits of 70%, 10% have 40% profit and 7% have losses. The participation of women is more notable in the production of lombrilhumus and compost, as well as in the commercialisation of the products and the registration of costs, whether in their role as beneficiary or wife of the beneficiaries, it is observed that they have greater control in the management of the costs of production and sale of the products, although they do not keep formal records.

Output 3. Stronger, equitable relationships established between agroecological producers and market system actors.

Activity 3.1 Drawing on expertise within project team, review and select market sub-sectors on Ometepe that best meet economic and biodiversity criteria for 'Participatory Market Systems Development'.

Building on the 'market system selection' process facilitated by FFI in Y1 that identified possible market subsectors for 'Participatory Market Systems Development' (PMSD), during Y2 FFI's Specialist in Community Livelihoods facilitated a further four meetings with Biometepe and RAPO (25 participants; 9 women, 16 men) to review opportunities for developing market linkages for agroecological products on Ometepe. In the second of these meetings it was agreed to implement a deeper diagnosis that would allow the final selection of the market system to be focused on through this project. This diagnosis highlighted that bananas are the main crop grown by RAPO's farmers,

and that they also have significant potential for generation of added value production, in the form of banana chips, banana flour and vinegar. Banana production also generates economic wellbeing for the RAPO farmer families, as it is one of the products most in demand in the market. Therefore, in agreement with the Board of Directors of RAPO, the decision was taken to prioritize mapping the banana value chain (see Annex 4).

Activity 3.2 Deliver market literacy training, to include approaches for engaging key actors and empowering marginalised actors in the market chain.

Activity completed in Y1. However, through our continued support to RAPO, FFI is providing ongoing support and helping to empower marginalised actors through next stages of the PMSD process.

Activity 3.3 Facilitate participatory market mapping, capacity assessment and action planning workshops (3 days) for each market sub-sector.

In Y2 Q3, the project team began planning the participatory market mapping process for the banana market chain in collaboration with the RAPO Board. An initial mapping session identified the following actors in the market chain: small-scale banana growers, commercial banana producers, local restaurants and hotels, intermediaries that facilitate the export of bananas off the island and internationally (mainly to Honduras and El Salvador); intermediaries representing organic markets, representatives of large corporate buyers (e.g. Walmart, La Fritanguera), processing facilities (e.g. for frying banana chips, either at cottage or industrial scale), and state representatives (from MEFCCA, INTA, MARENA, INTUR and the municipality). Additional service providers were identified including: local community transport providers on Ometepe (mule loaders and local bus companies), micro-finance service providers (Financiera FDL), and agroecological input providers. This initial mapping will enable the project team to host a full participatory market mapping process in Y3, to map market chain actors, develop strategic alliances and synergies within the current and potential market chain, and inform collaborative decision-making to develop strategies for supply and demand.

Activity 3.4 Provide training in quality control, storage, handling and processing, alongside mentoring beneficiary producers in developing market relationships, meeting market demand and negotiating higher market prices.

During Y2, training and mentoring in post-harvest processing and production was provided to 12 beneficiary producers from RAPO to enable them to produce marketable plantain and cassava chips in 50g, 100g and 250g presentations. As a result, RAPO members are now better able to process bananas and cassava with the right techniques and equipment to be competitive in the market, to use appropriate packaging and weighing, and to calculate production costs and establish appropriate pricing structures for different products (see Annex 4).

Activity 3.5 Hold triannual monitoring meetings with market actors and facilitate visits for producers and traders to mainland markets to better understand value chains for their products.

Through Activity 3.3, market stakeholders will also be involved in the design of an action plan, and subsequently contribute time and resources for its implementation. FFI will provide follow-up to this plan, and in coordination with RAPO, accompaniment and monitoring visits will be made with market actors to facilitate market linkages and strengthen value chains.

Activity 3.6 Evaluate progress and impact through facilitation of annual evaluation workshop for beneficiary producers and market actors (alongside Activity 2.7).

This is now planned for Y3, due to the impact of the Covid pandemic, combined with the national context.

Output 4. Ometepe as a model of conservation and sustainable development is known by stakeholders in Nicaragua, bird specialists and agroecological communities.

Activity 4.1 Collate results from environmental monitoring, conservation actions, socioeconomic and KAP surveys.

FFI's Biological Monitoring Specialist has worked closely with Biometepe's field team (working on agroecology and bird monitoring), to ensure all data is recorded systematically in accordance with agreed protocols and that data is uploaded into centralised databases managed by the FFI and Biometepe. Depending on the dataset, these databases are held in Excel (e.g. on-farm monitoring) or Survey 123 (water quality monitoring). Where appropriate, data collection and analysis has been

sex-disaggregated, to enable assessment of gender-differentiated impacts. Some key results collated from the monitoring data so far include: 138 bird species recorded (including 32 migratory species); 22 families/sub-families of freshwater macroinvertebrates identified; community-led patrols have recorded two sites affected by agricultural burning, covering an area of ~40ha; 55% of farmers achieve an average farm profit of 65%, 28% make an average profit of 70%, 10% make a profit of 40% and 7% make a loss; 30% of farmers are women.

Activity 4.2 Disseminate findings, outputs and lessons learned amongst stakeholders, through national workshop, local meetings and distribution of materials

Although the main lesson sharing workshop is scheduled for Y3 (where project beneficiaries and stakeholders will share their experiences and lessons learned), two meetings and a webinar were held in Y2 to share project learning regarding community-led conservation on Ometepe:

The first meeting in August 2021 shared the Ometepe experience of community-led conservation with stakeholders in the municipality of Tola in mainland Nicaragua, which has recently been identified as supporting a small population of yellow naped parrots. The meeting was hosted by FFI and Biometepe, and brought together the municipal authorities from Ometepe (Moyogalpa and Altagracia) and mainland Tola, with the community conservation and agroecological cooperative Anahuac which works in Tola, with 25 community leaders from two municipalities, and INTA. The meeting enabled the sharing of experiences, on both agroecology and yellow naped parrot conservation, and planning of joint actions in such a way as to replicate the agroecology model amongst other stakeholders (40 participants in total, 25% women – see Annex 4 for meeting minutes).

The second meeting was held with government authorities to share project progress, with a focus on community-led conservation on Ometepe and the application of the agroecological approach to mitigate climate change (15 participants).

A live webinar was hosted by FFI and Biometepe in December 2021, entitled: “*Committed to the Conservation of Nicaragua’s Treasures*”. The event aimed to broaden dissemination of project experiences, increase awareness of the conservation benefits generated on Ometepe and how these lessons can be applied to other sites in Nicaragua. The webinar, hosted via Facebook Live, reached an audience of 770 people and received online 311 interactions.

Activity 4.3 Disseminate project outputs and lessons learned via FFI’s networks in the UK and globally

Scheduled for Year 3.

3.2 Progress towards project Outputs

Output 1. Community-led forest protection and wildlife conservation are strengthened, supported by greater public engagement and action.

- *Baseline condition:* Over the last decade, Biosphere Reserve status has raised local awareness of ecological dependencies and grassroots commitment to conserving Ometepe’s natural heritage is strong. However, there is limited capacity within formal governance structures or amongst Ometepe’s residents to directly protect and conserve the island’s natural resources and ecosystems.
- *Current condition:* Through active community involvement in environmental monitoring and conservation actions - including four Community Commissions (established in Y1, now with 30 members, 45% female) which conduct regular forest protection and fire prevention patrols - 2,150 hectares of forest are better protected (evidence from Commission patrol records) and a total of 58 hectares have been planted with 31,294 native forest and fruit trees (evidence from Biometepe extension support records). 101 islanders and 480 farmers better understand their ecological dependencies (evidence to be captured through KAP survey at EoP), which increases their capacity to influence local level resource management decisions.
- *Likelihood of achieving Output:* Highly likely (targets already exceeded).

Indicator 1.1 Area of forest and wetland habitat within core/buffer zones protected through community-led patrols (baseline 900 hectares; target 1,500 hectares at EoP).

- Weekly community-led patrols now protect **2,150 ha** of forest (600 ha in Mérida and Santa Cruz, 750 ha in Balgue and Madroñal, 400 ha in La Palma and Corozal, 200 ha in the Peña Inculca Wildlife Refuge, 125 ha in Pull and 75 ha in Las Cuchillas) – as evidenced by patrol reports, not provided in annexes.

Indicator 1.2 Area of land reforested or under agroforestry in the agricultural buffer zone and number of native forest and fruit trees planted (targets: 75 ha and 30,000 trees by EoP).

- **31,294** native forest and fruit trees planted (13,500 in Y1, 17,794 in Y2) across **58 ha** of agricultural buffer zone (20 ha in Y1, 38 ha in Y2). Monitoring and management of planted trees indicates 68% sapling survival rate to date – as evidenced by Biometepe reports, not provided as annexes to this report.

Indicator 1.3 Number of islanders (beneficiary farmers, school children, youth, wider community) engaged in ecological monitoring and associated conservation actions (targets: 100 in Y1, 200 in Y2, 250 by EoP, of which at least 40% female).

- **265** islanders actively engaged (43% female): **8** members of Biometepe; **30** members of the Community Commissions; **14** additional community members involved in YNP monitoring; **15** private landowners involved in YNP protection efforts; **22** community members involved in migratory bird monitoring; 150 farmers (40% female) involved reforestation efforts and 48 farmers involved in on-farm bio-monitoring (**164** farmers total, avoiding double counting); **12** CAP members involved in freshwater monitoring and conservation actions.

Indicator 1.4 Increase in number of islanders (of a proportional and gender balanced sample of beneficiary farmers, school children, youth, wider community) who are able to articulate the connections between conservation, the water cycle and their livelihoods, between project start and end.

- Y2 surveys show that 95% of beneficiary farmers understand the links between agroecological practices and biodiversity benefits (See Annex 4i). **101** islanders and **480** farmers better understand their ecological dependencies. In addition, at least 574 people attended an awareness raising event or participated in the YNP festival this year (~50% female).

Output 2. Sustainable agroecological production is adopted by Ometepe's farmers, generating livelihood and biodiversity benefits and strengthening local adaptation to climate change.

- *Baseline condition:* FFI-supported agroecological production (pre-project) produced measurable benefits for 75 farming families, in year-round production and resilience to local climate impacts (Mena, 2018). However, these benefits were insufficient to foster new social norms and promote widespread uptake of agroecological production across the island.
- *Current Condition:* Farmers from 252 farm households (HHs) have accessed agroecological extension support and have improved knowledge, skills and resources to sustainably improve their agricultural production (evidence from Biometepe extension support records). 25 farming households actively participate in the RAPO peer learning network, providing a basis to adapt and support each other in the short and long term (evidence from RAPO meeting minutes).
- *Likelihood of achieving Output:* Highly likely (some targets already exceeded).

Indicator 2.1 No. of female and male farmers trained in agroecological practices (baseline 26 women, 62 men; target 380 of those identified as most vulnerable and/or farming priority sites for conservation by EoP, of which at least 40% female).

- **450** farmers (30% female) across ten farming communities trained in agroecological practices, via 34 training sessions (24 in Y1; 10 in Y2). **~600** people from 252 farming HH have received on-farm agroecological support and training (~2 visits/month/HH); 30% of beneficiary farms are led by women.

Indicator 2.2 No. of farming households (HH) identified as most vulnerable and/or farming near forest/wetland areas who have adopted agroecological production (baseline: 40HH; target: 200HH, by EoP).

- **252** beneficiary farming HH have access to the necessary skills and resources to implement new agroecological practices to improve their yields. Y2 surveys show that 90% of beneficiary farmers are implementing at least three agroecological practices on their plots (e.g. 92% have stopped agricultural burning, 85% incorporate stubble, 28% are vermicomposting, 54% are mulching to improve water retention of the soil, 56% allowing natural forest regeneration).

Indicator 2.3 No. of hectares of existing agricultural land applying agroecological practices (baseline: 220 ha; target: 1,000 ha by EoP. Total agricultural land is ~10,400 ha).

- Y2 surveys show that, across the 252 beneficiary farms, agroecological practices are now being applied across **700 ha**.

Indicator 2.4 Reduction in no. of new incursions into forest by beneficiary farmers / in forest areas adjacent to beneficiary farmers' fields, between start of engagement with farmers to project end (baseline: 60 incursions observed in 2018; target: 30% year-on-year reduction).

- Data is being collated.

Indicator 2.5 No. of farmers actively sharing agroecological practices and experiences and promoting conservation to other farmers, through RAPO participation (baseline: 25; target: 60 by EoP, of which at least 35% female).

- **25** farming families actively participate in RAPO's peer-to-peer network, 7 of which are female-headed households. Following farmer-to-farmer learning exchange, **15** new farming families in the municipality of Tola in mainland Rivas are applying new agroecological practices.

Indicator 2.6 Percentage of beneficiary farmers reporting decreased vulnerability of their plots /crops to the local impacts of climate change (target: 80% by EoP, of which at least 50% female).

- In the Y2 agricultural practices survey: 44% of beneficiary farmers reported "good" soil quality with high levels of organic matter and nutrients, and intense and diversified biological activity as a result of agroecological practices; and no beneficiary farmers reported poor soils. Beneficiary farmers reported that the implementation of agroecological practices, diversification of crops and phased planting helped them to a) reduce crop losses due to the prolonged drought in 2021 – specifically they reported that agroecological practices mitigated the effects of drought such that they were able to harvest in spite of the drought, albeit with some reduction in yields, while those who did not apply these practices suffered losses; b) achieve better production and mitigate the effects of the Covid pandemic and rising input prices in 2021 - reaching average profits on their farms of 65% in at least 55% of producers, 28% of producers have average profits of 70%, 10% have 40% profit and 7% have losses.

Output 3. Stronger and more equitable relationships established between Ometepe's agroecological producers (farmers and primary processors) and other agricultural market system actors.

- *Baseline condition:* Agroecological production is not driven by the current or potential market. Knowledge of the market systems is limited, and agro-ecological farmers do not have equitable relationships with agricultural market actors.
- *Current condition:* Market sub-sectors for PMSD and key actors in the market chains identified, with a focus on the banana market chain. RAPO, as one of the more marginalised actors, has better understanding of market systems and PMSD process (evidence from RAPO meeting minutes; evidence of change at system level will come from better terms and pricing for agro-ecological products).
- *Likelihood of achieving Output:* Likely.

Indicator 3.1 Percentage of agroecological producers (farmers and primary processors) reporting improved relationships with other market actors (target: 40% by March 2020; 80% by EoP of which at least 30% female).

- In Y2 a survey of banana market chain actors (farmers, intermediaries, input service providers, mule loaders, organic markets and processing plants; 21 in total, 16% female)

provided a baseline for the current status of relationships between market actors, against which impact of project-supported PMSD can be measured.

Indicator 3.2. Percentage of agroecological producers reporting a net increase in income from agricultural produce (target: 40% by March 2020; 80% by EoP, of which at least 40% female).

- Y2 agricultural practices survey found that beneficiary farmers reported net increase in income (see Outcome Indicator 0.3). However, this is not yet attributable to activities under Output 3, beyond the work under Activity 3.4 which has supported producers to process and market higher value products.

Output 4. The case of Ometepe Island Biosphere Reserve as a model of conservation and sustainable development is widely known by key stakeholders in Nicaragua, migratory bird specialists and agroecological communities.

- *Baseline condition:* Pre-project, FFI's programme has helped stimulate national and international recognition of the island's natural, cultural and touristic values, resulting in Ometepe's designation as a UNESCO Biosphere Reserve in 2010 and expansion of its core protected areas. The project aligns with national government strategies (of MARENA, INTA, MEFCCA, Ministry of Agriculture and Institute of Forestry) to increase food security and improve productivity (of farms and kitchen gardens), promote conservation, and incentivise sustainable production and agroecology.
- *Current condition:* Project's approach to promote community-led conservation and reduce local vulnerability to climate change align with Nicaraguan government strategies and project activities are incorporated into agreed annual workplans with seven government departments. Research permits for YNP and migratory bird monitoring have been issued by MARENA. In Y2, two meetings and a webinar were held to share project learning nationally.
- *Likelihood of achieving Output:* Highly likely.

Indicator 4.1 No. of decision makers, influencers, NGO partners, donor agencies and other stakeholders in Nicaragua who have access to project outputs and lessons learned from Ometepe (target: 60 by end of Y2, 100 by EoP, of which at least 40% female).

- **60** participants attended two lesson sharing meetings in Y2 - from national government departments (INTA, MEFCCA, MARENA, INTUR, INIFOM), municipal authorities, NGOs (Anahuac, Biometepe) and community leaders. A further **770** people tuned in to a webinar sharing lessons from the project in December 2021.

Indicator 4.2 No. of people across FFI's global staff and partner networks who have accessed project outputs and lessons learned from Ometepe (target: 50 by end of Y2, 80 by EoP).

- **18** staff and partners have accessed project outputs and lessons (staff from FFI's Social Equity, Agriculture and Enterprise team, Climate & Nature Linkages team, Science team, Americas & Caribbean team, Communications team, and one partner in Belize) mainly through email correspondence and meetings. Wider dissemination is planned in Y3.

3.3 Progress towards the project Outcome

We consider the indicators below to be adequate for measuring the intended Outcome.

Outcome: Ometepe's forest and wetland habitats and wildlife, including globally important populations of resident and migratory birds, are protected by community-led conservation and sustainable livelihood practices.

- *Likelihood of achieving Outcome:* Highly likely.

Indicator 0.1 Reduction in number of hectares of habitat in core zones of the Biosphere Reserve lost to agricultural encroachment or affected by anthropogenic fire.

- *Baseline condition:* Average 58 hectares p.a. forest cover loss, with 150 ha affected by fire in 2019. End-of-project [EoP] target: 50% reduction.
- *Current condition and sources of evidence for change:* According to the authorities' official registry, no forest fires have occurred in Y1 or Y2. However, community-led patrols have recorded

three sites affected by agricultural burns, covering an area of ~40ha (two in Y1 covering ~30ha; one in Y2 covering ~10ha). None of the forest fires were in the four areas protected and patrolled by the Community Commissions supported by the project. Field observations to be verified by remote sensing data from Global Forest Watch.

Indicator 0.2 Indices of forest and wetland health and biodiversity, including populations of resident and migratory birds, stable or increasing by EoP compared to baseline.

- *Baseline condition:* Baseline bird surveys conducted in November 2020 and recorded 31,860 observations of 124 bird species (32 migratory species). Freshwater monitoring underway.
- *Current condition and sources of evidence for change:* Bird surveys conducted in November 2021 recorded 138 bird species (32 migratory species). Freshwater monitoring has identified 22 families/subfamilies of macroinvertebrates. Monitoring data shows a reduction in wildlife poaching levels of up to 62% in patrolled forest areas compared to 2020.

Indicator 0.3 Percentage of target household members reporting improvements in food, income security and community-defined indicators of wellbeing, and improved understanding of links between wellbeing and biodiversity protection (target: 80% by EoP, of which at least 50% female).

- *Baseline condition:* Baseline data collected from sample of 30% of target households (HH) in January 2021 on demographics, household income (recognising that, so far, only 50% of households maintain financial records), food security and wellbeing. 60% of HH reported a 20% profit in 2019, increasing to 40% in 2020.
- *Current condition and sources of evidence for change:* 88% of surveyed agroecological producers (37% female) reported a net increase in their income from agroecological products (raw material and processed products) in the period 2020-2021.

3.4 Monitoring of assumptions

Outcome Level Assumptions

Assumption O.1: The security situation in Nicaragua remains sufficiently stable for FFI to continue ongoing operations. *Comments: Assumption still holds true. Despite elections in 2021, the situation is currently stable. FFI complies with all government requirements, maintains positive relations with government departments and has secured annual permits and agreed workplans.*

Assumption O.2: No new major drivers of deforestation emerge during the project. *Comments: Assumption still holds true. The Covid pandemic has increased dependencies on natural resource extraction on Ometepe and more widely across Nicaragua. Meanwhile enforcement of environmental laws is was a lower priority in the 2021 election year.*

Assumption O.3: No major disruption to ecosystem function on Ometepe - through natural disasters, large-scale pollution or climate change - occur. *Comments: Assumption still holds true.*

Assumption O.4: Ometepe's populations of migratory birds do not suffer significant decline due to threats in their breeding grounds in North America or on their annual migration. *Comments: Assumption still holds true.*

Assumption O.5: The without-project scenario would likely see worsening of all outcome indicators, in line with national declines in socio-economic conditions and increasing pressures on natural resources. *Comments: Assumption still holds true.*

Assumption O.6: The concession to build a Nicaragua Inter-Oceanic Canal, whose route would cut through Lake Nicaragua, remains dormant and/or does not adversely affect conservation and sustainable development on Ometepe. *Comments: Assumption still holds true. Canal project remains on hold.*

Output Level Assumptions

Assumption 1.1: Island stakeholders continue willingness to cooperate on biodiversity conservation initiatives. *Comments: Assumption still holds true. Cooperation in both Y1 & Y2 has been high and there are no indications that this will change.*

Assumption 1.2: Farming families perceive positive cost-benefit of agroforestry and reforesting land within the agricultural buffer zone and are therefore willing to reforest. *Comments: Assumption still holds true. Engagement in reforestation efforts has been high in Y1 & Y2.*

Assumption 2.1: The current positive attitude, locally and nationally, to developing sustainable livelihoods and trialling new agricultural practices is maintained. *Comments: Assumption still holds true. Interest in / uptake of agroecological practices amongst new farmer families is high.*

Assumption 2.2: Both female and male members of farming households will attend training and network meetings (assumption based on previous experience). *Comments: Assumption still holds true. Attendance in trainings and meetings has been high in Y1 & Y2.*

Assumption 2.3: Improvements to resilience brought about by agroecological approaches are able to withstand even the most extreme weather events, such as, for example, a recurrence of Hurricane Mitch-force winds, rainfall and storm surge. *Comments: Assumption still holds true. 2017 study showed that agro-ecological methods conferred resilience (i.e. reduced loss of crops) to Tropical Storm Nate and anecdotal evidence following hurricanes Eta and Iota in November 2020 indicate the same.*

Assumption 3.1: Market actors are willing to work together to improve product quality, volume, diversity and timeliness. *Comments: Assumption still holds true. Discussions to date indicate sufficient willingness.*

Assumption 3.2: Market demand is not adversely affected by national economic/social instability. *Comments: Assumption still holds true. Covid has affected markets in Y1 & Y2.*

Assumption 4.1: Decision makers, partners and stakeholders are receptive to the learning generated by the project. *Comments: Assumption still holds true. Alignment of project activities, outputs and outcomes with government strategies and stakeholder interests should ensure receptivity, interest and collaboration.*

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

Impact: Ometepe Island Biosphere Reserve is successfully demonstrating how innovative, integrated approaches to biodiversity conservation and ecosystem-based landscape management can generate long-term environmental, economic and social benefits.

Biodiversity: The change expected by project end is that forest cover and biodiversity will be stable or increasing due to reduced agricultural encroachment (driven by multiple livelihood benefits derived by farmers applying agroecological approaches, reducing the need for additional agricultural land), reforestation, agroforestry, and community-led patrols deterring illegal deforestation and extraction of forest resources. Linked to this, resident and over-wintering neo-tropical migrant bird populations will be stable or increasing, whilst decreases in agricultural run-off and erosion will lead to improvements in freshwater quality in key watercourses.

In the longer term, Ometepe will be a functioning Biosphere Reserve, with healthy forest and wetland ecosystems providing valuable services and benefits. The threat of habitat degradation in pristine forest areas will reduce, resulting in measurable benefits for biodiversity.

To date, the project has engaged more than 265 islanders in the protection, monitoring and restoration of Ometepe's habitats and species (including the Endangered yellow-naped parrot), across 2,150 hectares (8%) of the island. Baseline data on indices of forest and wetland health and biodiversity, including populations of resident/migratory birds and freshwater quality, was collected in Y1. Ongoing monitoring indicates a reduction in wildlife poaching levels of up to 62% in patrolled forest areas compared to 2020 and no forest fires have been recorded across four patrolled sites. 480 people have a better understanding of the links between forest, soil and water conservation and their livelihoods.

Poverty: This Darwin project is contributing to a reduction in poverty (SDG1) by building the resilience of all of Ometepe's residents, either directly or as indirect beneficiaries of sustained ecosystem services, and reducing their vulnerability to climate-related extreme events and other economic,

social and environmental shocks. The project's Theory of Change incorporates: the scaling-up of climate-smart agroecological production to increase livelihood resilience and reduce demand for land (Output 2); and improving access to and equity of local agricultural markets to increase income and alleviate poverty (Output 3). Farmers in 252 households (HH) have improved knowledge, skills and resources to sustainably improve their agricultural production; applying methods compatible with forest, water and soil conservation. As a result of reduced input costs (e.g. through locally produced 'bio-inputs' and year-round harvests, more than half of beneficiary farmers are achieving profits of 65%. Project actions are also contributing to increased family integration – the agro-ecological model generates year-round work (and therefore income) on the farms, reducing migration pressures of young people from farming families to seek work elsewhere. Diversified and phased planting / harvesting cycles also serve to improve both the food security and diet of rural families. Beneficiary farmers' results are already providing a reference for other farms and producers in the area, both inside and outside Ometepe.

4. Project support to the Conventions, Treaties or Agreements

The project supports Nicaragua's fulfilment of its obligations under the CBD by supporting the conservation of biodiversity within Ometepe Biosphere Reserve and the sustainable use of natural resources by local people. The project directly supports CBD Strategic Goals: B: Reduce the direct pressures on biodiversity and promote sustainable use; C: Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity; and D: Enhance the benefits to all from biodiversity and ecosystem services, by working to reduce direct pressure on biodiversity caused by land clearing for agriculture by local communities. The project also supports CBD Article 8 In situ Conservation (by managing resources important for the conservation of biological diversity outside protected areas; and contributing to maintenance of viable populations of bird and mammal species in natural surroundings), and Article 10 Sustainable Use of Components of Biological Diversity (by supporting Ometepe's farmers to adopt measures to minimise adverse impacts on biological diversity, specifically by sustainable agroecological production).

FFI is in regular contact with the senior management of MARENA, led by Lic. Dinorah Chamorro, Nicaragua's CBD focal point within MARENA, most recently through meetings and communications regarding FFI and MARENA's joint workplans for 2022, which include activities under this Darwin project.

The project also contributes to the following Aichi Biodiversity Targets:

1. By raising awareness of multiple values of biodiversity, conservation and sustainable use;
4. Through engaging local stakeholders, including businesses, in sustainable production;
5. By addressing deforestation, habitat degradation and fragmentation;
7. Through sustainable, biodiversity-friendly agriculture;
8. By reducing use of agricultural chemicals and decreasing run-off from smallholder farms;
12. Through improving the status of threatened species, including the endangered yellow-naped parrot (*Amazona auropalliata*).
14. and 15. By helping to restore, safeguard and build the resilience of ecosystems that provide essential ecosystem goods and services to local communities, including traditionally marginalised groups such as indigenous people, women and the poor.

The project supports delivery of Nicaragua's National Biodiversity Strategy and Action Plan (2015-2020 *NB. this Action Plan has not been updated at time of writing) targets: 1. Increase conservation knowledge; 4. Conserve vulnerable ecosystems; 6. Improve food security through agroecology; and 12. Protect and regenerate ecosystems affected by deforestation.

Under the CCC, the project contributes to Article 7 of the Paris Agreement by increasing the ability of Ometepe's farmers to foster climate resilience.

Whilst project activities do not directly address CITES, data from monitoring of yellow-naped parrot populations will inform FFI's wider work on Ometepe, which is addressing illegal trade in this CITES Appendix I listed species.

Likewise, whilst Nicaragua is not a party to the CMS, Ometepe provides vital over-wintering habitat for over 50 neo-tropical migratory birds, making this project consistent with the overall aims of the CMS.

5. Project support to poverty reduction

Nicaragua is classified by the World Bank as a Lower Middle Income country, and rural poverty is high (UNDP, 2019). On Ometepe, the impacts of socio-economic instability (since 2018), the Covid pandemic (since 2020), and the associated collapse in tourism, has prompted many islanders to return to subsistence farming and has contributed to an uptick of illegal poaching of wildlife and natural resources (Urtecho, 2019). Worsening economic conditions, and livelihoods and food insecurity have been exacerbated in recent years by unpredictable weather patterns and Ometepe's vulnerability to increasingly frequent natural disasters (FAO, 2015; Herrera, et al. 2018).

This Darwin project is contributing to a reduction in poverty (SDG1) by building the resilience of all of Ometepe's residents, either directly or as indirect beneficiaries of sustained ecosystem services, and reducing their vulnerability to climate-related extreme events and other economic, social and environmental shocks. The project's Theory of Change incorporates: the scaling-up of climate-smart agroecological production to increase livelihood resilience and reduce demand for land (Output 2); and improving access to and equity of local agricultural markets to increase income and alleviate poverty (Output 3).

Direct project beneficiaries include Ometepe's small-scale farmers. The project has already met its target of ensuring that >10% of all Ometepe farming households (252 HH to date) have increased capacity to manage their land and natural resources in such a way that sustains and improves their livelihoods and resilience to climate change, whilst reducing biodiversity loss and land and ecosystem degradation (Altieri, 2019; Gaudin *et al.* 2015; Jose, 2009; Mena, 2019; Sistla, *et al.* 2016).

The project is also benefitting Ometepe residents who have strengthened capacity to directly protect and conserve the natural resources and ecosystems of the Biosphere Reserve. Through active involvement in environmental monitoring and conservation actions, the project has already met its target of >250 islanders having better understanding of their ecological dependencies (581 to date), enhancing their ability to influence local-level resource management decisions (as per Danielsen, et al., 2010, 2014). Community members are motivated to engage in forest and species protection through strengthened social norms (including the Community Commissions established in Y1), greater understanding of biodiversity values and livelihood benefits associated with healthy ecosystems, and incentives linked to agroecological support.

The project has exceeded its target of reaching at least 380 farmers (600 to date, from 252 farming HH; 30% female) - especially those known to be vulnerable and/or close to forest/wetland areas - who have accessed agroecological extension support and have the knowledge, skills and technologies to sustainably increase their agricultural production. These farmers will benefit from access to peer learning networks, providing a basis to adapt and support each other in the short and long terms. They are starting to benefit from new, stronger and more equitable relationships with market actors, which will be evidenced by better terms and pricing for their products by project end.

As a result, the project is likely to exceed its targets of improving food and income security and other community-defined indicators of wellbeing for c.960 people (target 200 farming HH, ≥50% female; to date 252 farming HH across ten communities, ≥30% female), due to increased crop diversity and quality, reduced input costs, year-round harvesting, and greater resilience to pests, disease and extreme weather (Altieri *et al.* 2015). Dissemination of learning is already facilitating the further uptake of agroecological approaches across Ometepe and in mainland Nicaragua.

6. Consideration of gender equality issues

FFI recognises that women and men interact with biodiversity and natural resources in different ways and therefore have different skills, knowledge and perspectives. In Ometepe, as elsewhere in rural Nicaragua, women tend to have more domestic responsibilities, fewer rights, more limited access to and control over productive resources and land, and less of a voice in decision-making than their male peers. Nicaraguan culture generally does not recognise women's important role in and

contribution to subsistence agriculture and cash crops. As a result, women are often excluded from access to agricultural extension services, including training, demonstration plots and farmer-to-farmer learning opportunities.

FFI strives to ensure gender equality in all its work. The project team builds on existing institutional policies and guidance, including FFI's position paper "Gender in Conservation" (FFI, 2019). Notable achievements during the Y1 and Y2 of the project include:

- This project seeks proportional representation of men and women whenever possible. This includes access to training, participation in KAP surveys, and planning and implementation at community and institutional levels. Women's inclusion is facilitated by considering the timing of meetings, location, facilitator, and using methods that do not only rely on reading and writing, where appropriate.
- On Ometepe, FFI has already seen that, when invited and included in activities alongside men, female members of farming households are active and willing participants, keen to put knowledge and skills gained into practice. Once they have learned, women are keen to pass on their learning to other members of their household. So far in the project, in terms of gender distribution of roles, we have multiple instances of women proposing that their husbands continue to work on the farm whilst they themselves participate in project activities and trainings.
- To assess the potentially gender-differentiated impacts of the project, data collection and monitoring for all relevant indicators is disaggregated by gender. This includes the number of women-headed farms, the number of women in decision-making role in the RAPO network, the number of women applying practices and technologies, the number of women engaged in conservation actions such as through the Community Commissions, etc.
- During Y2, the key role and contribution of women in conservation actions and market development activities has been notable. For example, women have played a more dominant role in the development and marketing of agroecology products and in the recording of production and sales costs, and – at the farm level - in the production of vermicompost and compost. During Y3 feedback surveys following project activities will deepen our understanding of project impact on learning and awareness amongst women.
- Crucially, our approach to empowering women also involves men in order to ensure that women can influence decisions over how their family farms are managed without exposing them to risk of gender-based violence as a result. As an example, we are witnessing women from farming families prioritizing their family diet and food security, convincing their husbands to diversify their crops, apply agro-ecological practices (to reduce pests and vulnerability to extreme climate events) and explore new market opportunities. Furthermore, as a result of strong participation of women in project activities, men from their households are actively encouraging them to become more aware of and lead the knowledge of their family in agroecological practices and conservation actions.

7. Monitoring and evaluation

The Steering Committee is responsible for monitoring and adaptive management, in line with project's Theory of Change. The project's M&E plan is designed to capture and provide evidence of change at key stages along the project's pathway of impact, based on project logframe and indicators. No significant changes have been made to the project's M&E plan, and associated data collection methods and tools. Staff from both FFI and Biometepe responsibilities for data collection and analysis.

In Y1 and Y2, detailed monitoring protocols have been developed to assess changes in habitat health and biodiversity over the duration of the project, including annual YNP population census, protocols for monitoring neo-tropical migratory birds, and locally-appropriate protocols for farmer-led monitoring on farm plots and for monitoring of water quality and flow in priority watercourses. Led by Biometepe, baseline data has been collected on agricultural practices, and knowledge, attitudes and perceptions, to evaluate changes from baseline to end-of-project.

All protocols and information generated are shared between project partners. This includes sharing of project information, monitoring methods and learning with government and other stakeholders, including those working in other agricultural landscapes in mainland Nicaragua.

8. Lessons learnt

☺ *Alignment with national priorities:* The project, and FFI's wider programme in Nicaragua, aligns well with the Nicaraguan government's philosophy and priority of building community level capacity for governance of natural resources, food security and resilience to climate change. Accordingly, the project, as well as FFI and our local partners, benefit from the support and endorsement of government departments and municipal authorities, without which we could not operate. All project activities are included in the annual workplans agreed with the government at the start of each calendar year.

☺ *Effective local partnerships and relationships:* The partnership between FFI and Biometepe is healthy and productive, providing an effective platform for project activities. Biometepe's technical team are knowledgeable and hardworking, and - with FFI support - deliver high quality fieldwork and conduct robust monitoring. Relationships with wider community stakeholders and project beneficiaries (through RAPO, CAPS and wider outreach) are also positive and overall community buy-in to project objectives continues to be strong. We believe community support for the project has not waived, because project development and design were based on substantial and extended engagement with local stakeholders.

☺ *Community-led forest protection:* The Community Commissions are proving an effective mechanism for forest protection, with two new community sites covered by the patrols in Y2. The Commissions are operating in collaboration with local authorities - including representatives of the local police and MARENA – enabling these units to have a role in monitoring illegal activities including illegal logging and wildlife poaching.

☺ *Uptake of agroecological production:* Interest amongst Ometepe's farmers in receiving agroecological support and adopting new practices is high. As a result of this interest, alongside Biometepe team's excellent extension support, the project has already exceeded its end-of-project targets in terms of numbers of farming HH benefitting from extension support and adopting agroecological practices on their plots of land. Furthermore, the project has been able to successfully share experiences through 7 events with farmers in mainland Nicaragua.

☺ *Development of a market systems approach:* The logistical and practical challenges placed on the project by the national socio-political context and Covid, have slowed the market systems development work under Output 3. It has made it more challenging to design the process, build market literacy and bring key stakeholders together. For this reason, the project is focusing on one, economically robust market system, for banana for the remainder of this project. In addition, FFI has identified the need for further follow-up and training in market literacy and the PMSD methodology - not only for RAPO and other market actors, but also for the in-country project team. In Y2 we connected FFI's Specialists in Enterprise Development and PMSD with the project team, but language constraints limited the support they could provide. We recommend investing more resources in training and securing external support to strengthen this component of the project.

☺ *Monitoring & Evaluation:* Government restrictions on conducting community surveys continue to affect some of the data we can collect, for example through KAP surveys, and may continue for the remainder of the project period. In response, the project team has set up an M&E sub-committee responsible for the design, coordination and implementation of surveys and case studies needed to measure project impacts. At baseline, survey methods and data collection techniques were adapted at baseline to be both 'Covid-compliant' and to comply with government requirements and the project team will continue to adapt methods accordingly.

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

In response to Reviewer feedback from Annual Report 1 Review:

1. *Role of Fundacion Entre Volcanes (FEV):* Since project inception, due to political tensions, FEV had not been playing the active role in the project as originally envisaged at project design. As reported to Darwin in our half-year report, local NGO and project partner FEV officially closed down as an organisation in August 2021. FFI submitted a Change Request to informing Darwin of the removal of FEV as a partner from the project in December 2021. FFI staff have absorbed FEV's

anticipated role in the project, leading coordination with the Drinking Water Committees (CAPs) and supporting post-harvest processing directly.

2. *Provide evidence of planned joint work with the government departments as listed in Section 2.* The agreed workplans for 2022 - with **MARENA** (Ministry of Environment and Natural Resources), **INTA** (Institute of Agricultural Technology), **INTUR** (Institute for Tourism), **INIFOM** (Institute for Municipal Development), and **MEFCCA** (Ministry of Family, Community, Cooperatives & Associative Economy) - for 2022 are provided in excel format (one spreadsheet per department, in a single Excel file) in Annex 4m.

4. *Confirm target number of trainees for Activity 1.6:* The target number of trainees for the freshwater monitoring is 12 (i.e. 3 leads from each of 4 communities). Our target for the simple manual for the identification of freshwater macroinvertebrates is to reach and be used by 24 people (i.e. 6 people in each of 4 communities).

5. *Provide details of identified market outputs for agroecological products, both within and outside Ometepe.* Markets for agroecological products have been affected hugely as a result of the national socioeconomic context and the Covid pandemic. The project's PMSD approach aims to systematically work with farmers and market actors to map out market opportunities and facilitate linkages that are not currently being developed. It is anticipated that a full report on this will be a product of the market systems development process and will be provided in due course.

10. Other comments on progress not covered elsewhere



11. Sustainability and legacy

Project actions are endorsed by relevant national government departments, as formalised through FFI's agreed joint workplans with MARENA, INTA, MEFCCA and INTUR for 2022 and 2021 (as described in Section 2). Project sustainability is boosted by the project's alignment with existing national government strategies to increase food security and improve farm productivity, promote conservation, and incentivise sustainable production and agroecology.

In line with the project's open access plan, project experiences and lessons are being shared with island stakeholders, decision makers and through relevant national and regional forums, via FFI's established relationships and networks on Ometepe and across Nicaragua. At the grassroots level, FFI is building capacity and sharing project experiences through Biometepe, RAPO and amongst beneficiary farmers, as well as through wider community events, and with NGOs working elsewhere in Nicaragua. In Y2, responding to the interest of municipal authorities in mainland Nicaragua in learning from project experiences and replicating the project approach, the project shared experiences through seven events and farming communities in this municipality are already replicating both agroecological practices and YNP conservation actions. In Y1, in coordination with INTA, FFI also participated in the Regional Commission for Agricultural Research and Innovation (CRRIA) for the Pacific region of Nicaragua – this Commission was established as a forum for government, private sector and NGO actors to share experiences and research into new agroecological practices and technologies and inform the development of further initiatives.

Any media produced in relation to capacity building and raising awareness is made available in appropriate formats, to facilitate knowledge sharing and access.

In terms of exit strategy, this project is part of a progressive approach - combining institutional capacity building and training of partners and beneficiaries, with the promotion of sustainable livelihood activities and associated benefits, and the strengthening of peer-networks. The sustainability of biodiversity benefits is underpinned by the project's focus on building conservation capacity, increasing awareness and reducing drivers of biodiversity loss. As such, the project's planned exit strategy is still valid. Indeed, project strategies to support sustainable livelihoods, generate systemic market-driven change and increase islanders' resilience, combined with actions to motivate community-led conservation, were made increasingly relevant and necessary in the context of the Covid pandemic (see Section 13). Accordingly, and as noted in the original project application, the "shock" of the Covid pandemic and associated threats/impacts (for example, continued suppression of tourism limiting opportunities for the local generation of funds for environmental conservation activities) may necessitate additional investment to continue the project's legacy to safeguard biodiversity and sustainable livelihoods on Ometepe over the coming years.

12. Darwin identity

This Darwin Initiative project forms part of FFI's integrated conservation programme on Ometepe, nevertheless the project has a clear identity amongst project partners and stakeholders. At project inception, the project theory of change, logframe and workplan were presented to local project partners, stakeholders and communities on Ometepe, and the support of the Darwin Initiative was acknowledged. In all meetings with government departments, including MARENA and INTA, the support of the Darwin Initiative and the UK government to shared priority activities have been highlighted and understood. Through these links we continue to build understanding of the aims and approach of the Darwin Initiative amongst project stakeholders in Nicaragua.

A dedicated page of the FFI website (<https://www.fauna-flora.org/projects/improving-sustainable-use-natural-resources-ometepe>) recognises the support of the Darwin Initiative and has been updated by the project team and is due to go live at time of writing. Neither the project, nor FFI Nicaragua, have dedicated social media channels, nevertheless dissemination of project activities (meetings, events, exchanges of experiences) and achievements are made through the [Ometepe Biosphere Reserve Facebook page](#) and via [Biometepe's Facebook page](#). On the Ometepe Biosphere Reserve Facebook page 124 posts about the project have been made with the hashtag [#DarwinInitiative](#), reaching a total audience of 36,870 people. Posts are also linked to FFI using the hashtag [@Fauna & Flora International](#). Where appropriate and possible, we explicitly publicise the Darwin Initiative and its support to this project, with Darwin Initiative and UK Government logos used on meeting/workshop invites, participant lists, and awareness materials and other publications resulting from the project.

13. Impact of COVID-19 on project delivery

The Covid-19 pandemic has exacerbated existing socio-economic vulnerabilities amongst rural communities across Nicaragua, resulting in increased dependencies on natural resource extraction, and Ometepe is no exception. Within this context, project strategies to support sustainable livelihoods and increase islanders' resilience, combined with actions to increase local understanding of the value of biodiversity and motivate community-led conservation, remain highly relevant and necessary.

FFI was able to maintain our operations in Nicaragua throughout the pandemic, remaining focused on our long-term objectives whilst mitigating against immediate risks and challenges. This included the application of appropriate Covid-19 protocols, incorporating use of PPE, social distancing measures and activity-specific risk assessments. In Y2, and following national vaccine roll out, the numbers of Covid cases reported in Nicaragua have dropped considerably and recorded cases of Covid-19 on the island have remained low.

The project's design, with many activities led by local partners and island stakeholders, reduces risk and has enabled us to continue to deliver project activities largely as planned. The project's local FFI/Biometepe team, have been able to continue operations and delivery of all essential field activities (including direct support to farmers where needed), in line with agreed Covid-19 protocols

and associated risk assessments. As in Y1, some project activities (such as training workshops and awareness activities) have needed to be adapted to involve fewer people.

Whilst no international travel was undertaken in Y2 (as originally planned) the project Steering Committee are optimistic that this will resume in Y3 as planned.

Project planning and Steering Committee meetings have continued to take place using Teams and WhatsApp, to augment the ad-hoc project team meetings which take place in person on the island. FFI and the project Steering Committee will continue to monitor the situation and apply an adaptive management process. We will keep the Darwin secretariat informed of any developments which may affect project activities, budget or implementation timetable.

14. Safeguarding

Please tick this box if any safeguarding or human rights violations have occurred during this financial year.

If you have ticked the box, please ensure these are reported to ODA.safeguarding@defra.gov.uk as indicated in the T&Cs.

FFI's Safeguarding Children and Adults at Risk Policy and Procedure was developed in December 2014 and last updated in March 2018. The policy applies to members of the Board and its sub-committees, FFI employees, temporary staff provided through agencies, volunteers and interns, contractors, consultants, service providers and any third party undertaking work on behalf of FFI, in partnership with FFI or in collaboration with FFI. The policy demonstrates the organisation's commitment to safeguarding children and adults at risk and to complying with the UN Convention on the Rights of the Child; confirms established arrangements and procedures for safeguarding 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 relating to 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 harassment policy was developed in March 2018. The policy applies to members of the Board and its sub-committees, FFI employees, temporary staff provided through agencies, volunteers and interns, contractors, consultants and any other third parties carrying out work on behalf of FFI. The stated aim of the policy is to ensure a safe, welcoming and inclusive working environment, free from bullying, threats, discrimination, harassment or intimidation; to clearly communicate 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 behaviour that are prohibited; to communicate the importance of reporting incidents of bullying and harassment; and to communicate the procedures in place for managing incidents of bullying and harassment. The policy expressly states that bullying or harassment of any kind against an individual or group of individuals, whether persistent or an isolated incident, will not be tolerated under any circumstances.

The FFI Whistleblowing Policy was developed in June 2013 and last updated in July 2021. The policy applies to employees of FFI. The stated aim of the policy is to encourage employees to report any suspected wrongdoing in the organisation as early as possible, knowing 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 such concerns and seeks to reassure employees that they can raise genuine concerns in good faith without fear of retaliation, even if they turn out to be wrong.

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

We monitor updates to Government and Charity Commission guidance and revise our policies and procedures accordingly.

On social safeguards, FFI has publicly available position papers on our approach to livelihoods and governance, free, prior and informed consent, gender in conservation, displacement and restrictions on access to resources and conservation, and rangers and human rights (links below). Our dedicated

Social Equity & Rights team (previously the Conservation, Livelihoods and Governance team) supports FFI regional staff and partners to adopt a holistic and people-centred approach to biodiversity conservation, and ensure that project activities are strongly aligned with these principles.

[FFI 2013 Position-and-approach-to-conservation-livelihoods-and-governance \(fauna-flora.org\)](#)

[FFI 2019 Position-on-free-prior-and-informed-consent-.pdf \(fauna-flora.org\)](#)

[FFI 2019 Position on gender in conservation.docx \(fauna-flora.org\)](#)

[FFI 2020 Position-on-rangers-and-human-rights.pdf \(fauna-flora.org\)](#)

[FFI 2016 Displacement-and-restrictions-on-access-to-resources \(fauna-flora.org\)](#)

15. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2021 – 31 March 2022)

Project spend (indicative) since last Annual Report	2021/22 Grant (£)	2021/22 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				N/A (As per approved Jan'22 Change Request)
Consultancy costs				N/A (As per approved Jan'22 Change Request)
Overhead Costs				N/A
Travel and subsistence				N/A
Operating Costs				N/A
Capital items (see below)				
Monitoring & Evaluation (M&E)				M&E costs were not separated out in original budget.
Others (see below)				
TOTAL				

16. OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum). This section may be used for publicity purposes

I agree for the Darwin Initiative Secretariat to publish the content of this section (please leave this line in to indicate your agreement to use any material you provide here).

This Darwin Initiative project is delivering best practice in terms of provision of agroecological training and extension support to farming households on the island of Ometepe. This agroecological approach is improving productivity, competitiveness and ecological benefits of beneficiary farms, and reducing their vulnerability to climate impacts. To date, over 250 farming households have access to the necessary skills and resources to implement new agroecological practices and 90% of beneficiary farmers are implementing at least three agroecological practices. On-farm bio-monitoring combined with monitoring of resident and migratory birds and forest health indicators is building the evidence base of the wider ecological benefits of the agroecological approach on the island. Interest amongst Ometepe's farmers in receiving agroecological support and adopting new practices is high and the project has been able to successfully share experiences through seven events with farmers in mainland Nicaragua.

Checklist for submission

	Check
Different reporting templates have different questions, and it is important you use the correct one. Have you checked you have used the correct template (checking fund, type of report (i.e. Annual or Final), and year) and deleted the blue guidance text before submission?	✓
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	✓
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	N/A
Have you included means of verification? You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	✓
Do you have hard copies of material you need to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	N/A
Have you involved your partners in preparation of the report and named the main contributors	✓
Have you completed the Project Expenditure table fully?	✓
Do not include claim forms or other communications with this report.	