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FAUNA & FLORA INTERNATIONAL

Arcadia Marine Initiative

Annual Report 2018

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Executive Summary

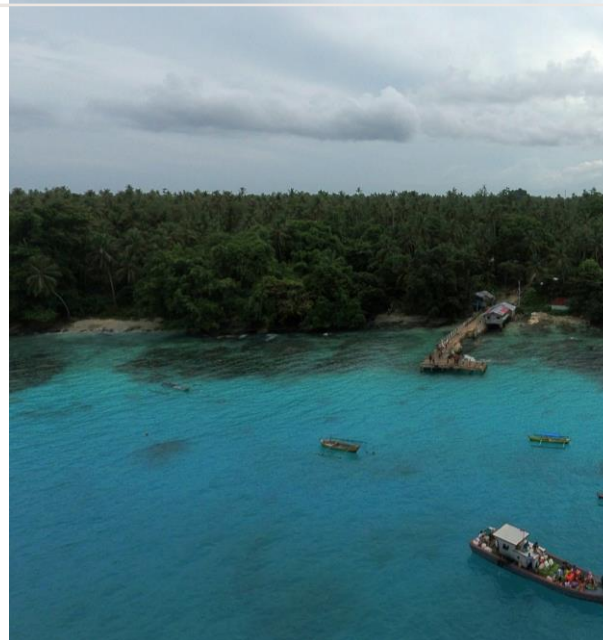


Marine ecosystems across the globe are among the most important natural systems on earth, supporting significant levels of biodiversity, playing a critical role in regulating the earth's atmosphere and climate, providing food and livelihoods to over one billion people, and sustaining local and national economies. Despite the importance of the ocean for every human life (in helping to drive the water cycle and to produce the oxygen that we breathe), marine ecosystems are also some of the most threatened on the planet. Past decades of neglect and over-exploitation have degraded many marine areas, putting biodiversity and human dependencies at risk.

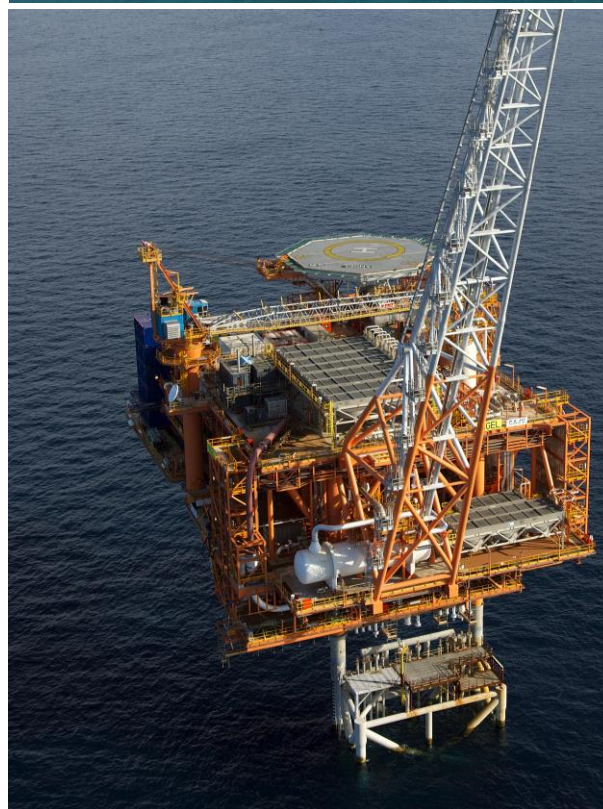
In response to these threats, Fauna & Flora International (FFI) developed an ambitious marine conservation programme in 2010. Over this period, we have engaged with a wider network of 201 partners in 17 countries (providing specific institutional support to 58 partners), supporting a total of 34¹ initiatives. We have continued to collate information on our achievements across the programme since 2010 and are pleased to be reporting some key outcomes, including:

- The establishment of 20 new Marine Protected Areas² in nine countries;
- Improved management of a further 35 Marine Protected Areas (previously established);
- The establishment of 68 strictly protected zones (across our sites in eight countries) as refuges for species and habitats;
- Destructive fishing and/or poaching reduced in 48% of all 56 of our sites (up from 45% in 2017):
- Changes in government approaches to marine management in 15 countries;
- 29 new policies enacted to guide better marine management at local and national levels;
- Corporate behaviour impacting on the marine environment influenced in the fisheries, plastics and oil and gas sectors; and
- Enhanced operational capacity of 50 partner organisations.

While we would expect biodiversity impacts from these outcomes to take a number of years to become apparent; we are already able to demonstrate positive biological responses following a reduction of illegal fishing and poaching threats at 21 sites³. We continue to be able to report positive signs of recovery in 17 key species groups including reef fish, sea turtles, sharks, seals and seahorses as well as across coral reef, rocky reef, mangrove and seagrass habitats.



Credit: FFI



Credit: FFI



Credit: Tanguy Nicholas/FFI



During the most recent phase (2016-2018) we have reinforced and extended our successful engagement at both the site, and policy level, across our whole marine programme. The emphasis of our plans during this period have been to:

- consolidate achievements at our existing sites;
- where appropriate, building on these to scale-up impact through replication at neighbouring sites or other important marine areas within the same country;
- develop initiatives in a select number of new geographies;
- increase the attention we give to threatened species within our marine portfolio, focusing on species where there is a need for direct targeted measures to ensure their conservation (new initiatives launched to safeguard sharks, rays and seahorses);
- work towards targeted policy reform in key countries of operation, particularly on some of the most damaging fishing methods such as bottom trawling;
- engage with the corporate sector to reduce their impact on the marine environment, building especially on the leadership we have established on the issue of microplastic pollution;
- build the capacity of our partners, including the development of marine conservation champions.

An additional specific focus for this phase has been to strengthen the evidence base around outcomes and impacts for both biodiversity and local communities within the projects in our marine portfolio. We have been making good progress in this regard and see the ability to demonstrate these impacts as a central part of ensuring the ongoing commitment from communities and governments towards improving marine management, and to the wider up-take and replication of marine management models.

2018 has continued to herald an unprecedented level of public and political interest in ocean conservation issues, creating an exciting (and rapidly moving) landscape for marine conservation. FFI's own marine work has become increasingly visible at the international level this year, particularly in relation to our work around marine plastic pollution and Marine Protected Areas, which has been represented in high level events such as the Commonwealth Heads of Government meeting (UK) and the Our Oceans Conference (Bali); which in turn has opened new opportunities for partnerships and joint action.

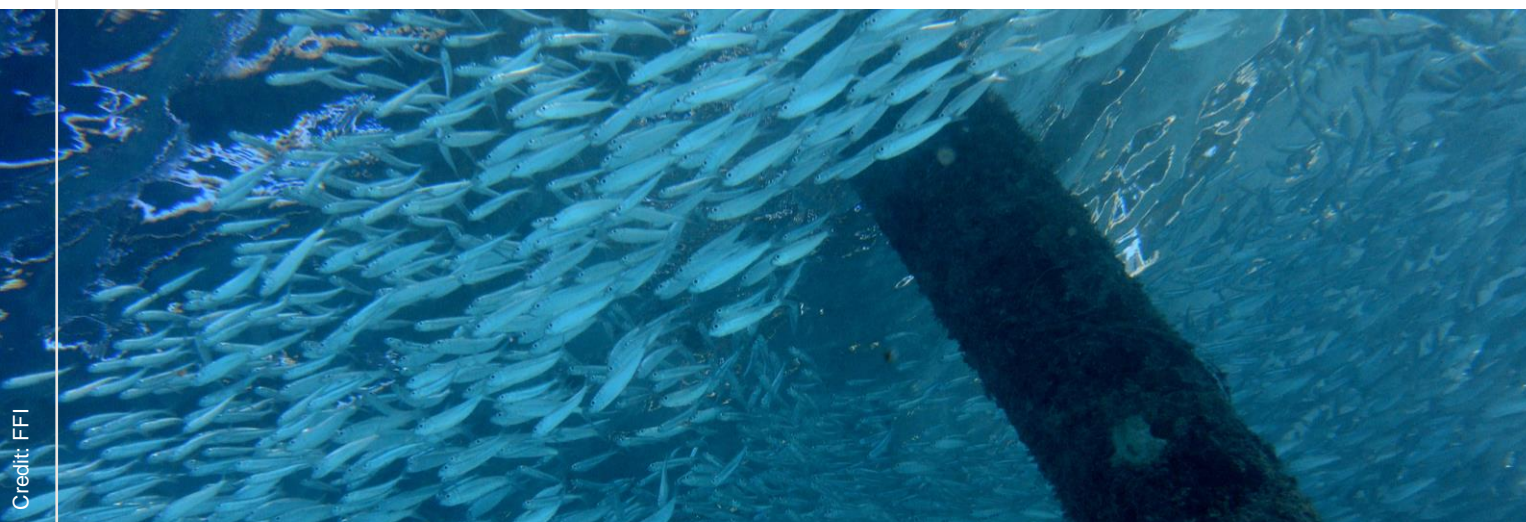
We have continued to make solid progress across the marine programme this year, with projects becoming increasingly sophisticated in terms of the approaches applied, complexity of partnerships, and potential for influence. A number of our projects are now influencing (or are set to influence) conservation outcomes across larger seascapes – including in Honduras, Turkey, Nicaragua, and looking ahead - in São Tomé and Príncipe via a new initiative that will come online in 2019⁴. We have significantly increased our engagement at the political level on marine plastic pollution (particularly in the UK), and have kick started the development of a suite of new projects to tackle the threat of plastic pollution in key sites across our portfolio, including in Kenya, Honduras and Cambodia. We have reinvigorated work in Aceh, positioning FFI as a key partner in achieving the Government of Aceh's own strategic vision for effective marine management across the Province, and supported strategic planning to refocus our efforts in northern Kenya for greatest impact. We have developed new streams of work to protect vulnerable sharks and rays in Myanmar and Pemba and are exploring opportunities for Antillean manatee conservation in Honduras, while also expanding our capacity building support to new partners (in Cape Verde and Anguilla) to drive forward marine conservation efforts.

FFI's global marine programme in 2018 consists of 34 projects (of which 17 are currently active), and through support to programmatic marine expertise has a catalytic impact for marine conservation across FFI. A total of 12 new awards have been made to projects this year.

Some highlights from the programme in 2018 include:

- Two new no-take-zones established within the boundaries of the Bay Islands Marine National Park in Honduras, bringing strict protection to 600 hectares of rich inshore waters in order to restore local fish populations;
- Expansion of local management in Tanintharyi, Myanmar, with a zonation and boundary plan drafted for the country's fourth LMMA (building on the success of last year's initial three designations) to increase community-based protection to nearly 13,000ha;
- The biomass of reef fish in community-protected areas shown to be nearly three times higher than in the surrounding fished areas of the PISISI MPA in Aceh;
- Biodiversity gains reported from community managed zones in Cambodia, including greater seagrass cover, higher numbers of predatory groupers (indicative of a healthy balance of fish on the reef), and persistence of live coral cover;
- Dramatic reduction in the use of fishing nets with small mesh sizes (which unduly capture juvenile fish) (by 74%) as a result of targeted patrolling in Cuero-y-salado Wildlife Refuge in Honduras;
- Commercial long-line fishing fleets required to use by-catch reducing hooks in Nicaragua to minimise fishery impacts on turtle populations following approval of new national policy;
- New partnership launched with the Endangered Landscapes Programme to scale successful community-led management approaches for protecting seagrass and reef habitats along a 500km stretch of the Mediterranean coast in Turkey;
- Successful breeding of endangered Mediterranean Monk Seals confirmed in two caves within Gökova Bay, leading to strict legal protection for these locations to minimise disturbance;
- 100% of all leatherback nests and more than 90% of all Eastern Pacific hawksbill nests were protected from poaching during the 2017/2018 nesting season in Nicaragua, resulting in the release of 137 leatherback and 8,751 hawksbill hatchlings to the sea;
- FFI positioned as a lead NGO partner in the Commonwealth Clean Oceans Alliance – launched in London in April 2018 – which seeks to unite the 53 countries of the Commonwealth in ambitious action to tackle plastic pollution in the world's ocean;
- New initiatives launched in Cambodia and Kenya, and in development in Honduras to reduce the threat of plastic pollution in our focal marine geographies;
- Continued growth of the Scottish Coastal Communities Network gives voice to thirteen community groups on key issues relating to the management of inshore waters;
- FFI's ongoing support to Scottish partner SIFT helped to ensure their active political lobbying around the proposed mechanical dredging of kelp (a critical coastal habitat) on Scotland's west coast, amplifying the message of the grass-roots "Help the Kelp" campaign to influential Scottish politicians and enshrining protection of kelp into national law;
- Conservation Leadership Programme investments into young conservationists enables the first satellite tagging of thresher sharks in Alor, Indonesia (gathering vital data to inform their management).

FFI's marine programme and its achievements since 2010 would not have been possible without the generous support of Arcadia – a charitable fund of Lisbet Rausing and Peter Baldwin.





BACKGROUND

The world's oceans and coasts are host to some of the most productive ecosystems on earth, providing food and livelihoods for one billion people living in local communities and sustaining local and national economies. However, the threats to our oceans and coastlines are severe and increasing. Past decades of neglect and over-exploitation have proved that the marine environment is not only vulnerable but becoming increasingly and rapidly degraded. The unprecedented rate of change and the scale of the threats necessitate urgent and coordinated global action. In response, FFI is committed to increasing our conservation impact on marine and coastal habitats.

STRATEGIC OBJECTIVES

The strategic objectives of FFI's marine strategy⁵ are to:

- deliver effective site-based marine management (MPAs, fisheries and species focused conservation at focal sites);
- improve policy and practices in order to address wider-scale threats to species and habitats (national fisheries reforms, responsible business practices);
- develop the capacity of in-country organisations to enhance their operations and help them to deliver effective marine conservation;
- build a strong evidence base for dissemination and further replication of successful approaches.

The projects featured within this report have been arranged under objectives i-iii of the programme for ease of presentation, but these are illustrative groupings, and many of our projects deliver outcomes across more than one of these objectives. The table below lists the projects within our current global marine portfolio, and which of these objectives that they have been designed to respond to.

Project	Securing marine sites	Policy and practice	Strengthening partners
Gökova Bay, Turkey			
Cambodia's first MPA			
Seahorse conservation, Cambodia			
Maio Island, Cape Verde			
Myeik Archipelago, Myanmar			
Conservation of threatened sharks and rays, Myanmar			
Expanding marine conservation, Nicaragua			
Atlántida, Honduras			
Co-management of marine resources, Tanzania			
Protecting coral reefs in Aceh, Indonesia			
Nicaragua turtles			
Conserving Georgia's Black Sea coast			
Galera San Francisco, Ecuador			
Turneffe Atoll, Belize			
Lake Piso, Liberia			
Reducing the extent and impact of destructive shrimp trawling practices			
Towards new national policy on illegal and damaging fishing in Costa Rica			
Supporting Scotland's first Demonstration and Research MPA, Fair Isle			
Improving policy and practice to reduce plastic pollution			
Developing a portfolio of regional marine plastic pollution projects			
Marine Stewardship Initiative			
Impact investment, Aceh, Indonesia			
Sustainability rating for the fisheries sector			
Documenting the impacts of No-Take Zones on Fisheries, Firth of Clyde, UK			
Community Institutions in the Firth of Clyde, UK			
Improving capacity for effective MPA designation and management in Scotland, UK			
Marine conservation in Pate Island, Kenya			
Conservation Leadership Programme			
Community Conserved Areas, south Kenya coast			
Marine conservation in Central America			
Marine conservation in the Philippines			
Blue Marine Foundation			



Securing Marine Sites for Conservation



OUR APPROACH

Marine Protected Areas (MPAs) are among the most effective tools for tackling many of the threats and pressures on the marine and coastal environment and its resources. Evidence suggests that when combined with other management strategies (such as integrated coastal management and ecosystem-based fisheries management), appropriately placed and well managed MPAs can restore the health of marine life inside their boundaries and have lasting economic benefits for human societies.

FFI believes that increasing the area of the oceans under effective protection needs to be a central part of international efforts; however, equally important is the need to tackle the recognised limitations that many existing MPAs face around governance, enforcement, funding security, effective community development programmes, infrastructure and maintenance, and communication.

Through a suite of site-based projects at local and sub-national scale we are showcasing approaches to effective governance of marine and coastal resources, crafted to suit the local situation. These projects are delivering multiple benefits and are supported by enabling policies and interconnected structures. Effective demonstration of marine management models is a critical step in building the resilience of natural ecosystems, and in shifting the balance in favour of conservation. Our work is proving to be particularly catalytic in demonstrating the relevance and benefits of management in challenging coastal areas, where people rely most heavily on biodiversity, and where the threats to biodiversity are the highest. We have also leant out weight this year to the campaigns of others, working to encourage the establishment of effectively implemented large-scale MPAs (e.g. Great British Oceans Blue Belt Charter).

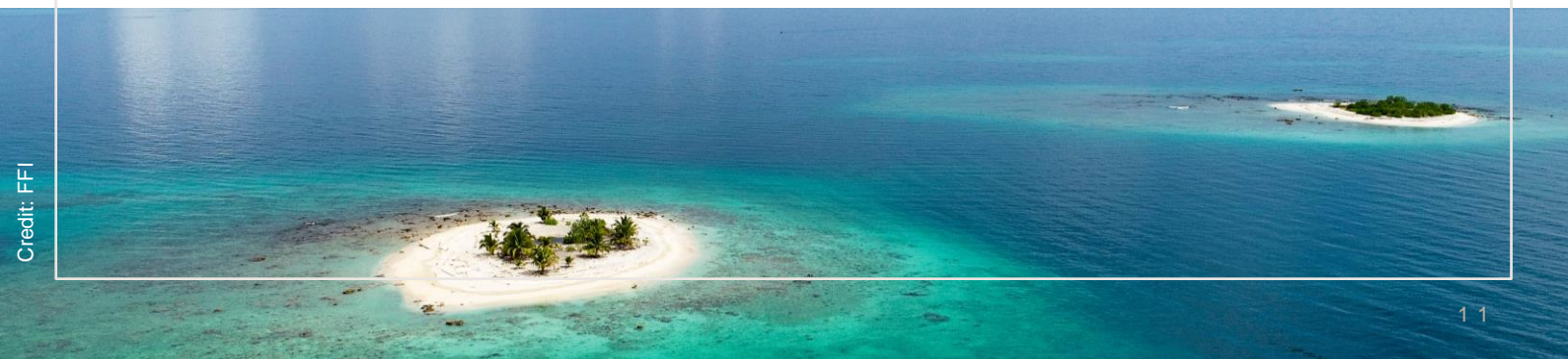
Over the past seven years, we have worked at 56 sites to secure better protection and management for marine resources (and provided indirect input to a further 24 sites)⁶. With this current phase of the programme, we are consolidating our work with existing partners at current sites, ensuring they can develop appropriate and effective management systems and the capacity they need to continue their work when our support ends. One element of

this is the development of financial sustainability, so establishing models of sustainable financing for marine management is an important part of several of our current site-based projects (e.g. Turkey, Cambodia, Cape Verde and Nicaragua). Positively, there seems to be increasing recognition internationally of the need not only for the establishment of more MPAs, but also for parallel investments in the systems and capacity needed to make these work over the long term, with a number of new large-scale funding mechanisms in development to enable this work (e.g. from the World Bank).

Where appropriate, we are also seeking to scale-up our impact through replication of our approach at neighbouring sites or other areas in existing countries of operation. In a number of our projects (e.g. Tanzania, Turkey, Honduras, Myanmar, Nicaragua), we are working to link adjacent communities, increasing social connectivity to support better protection for ecologically connected areas.

We are also exploring new site-based initiatives in a limited number of new geographies. This year we have advanced activities in new areas in Turkey and Cambodia, and have undertaken initial scoping of new opportunities in Cape Verde, while also securing funds for future efforts in São Tomé and Príncipe.

Recognising that some particularly 'at risk' marine species need targeted interventions to ensure their protection and recovery, we are increasing our focus on the needs of specific vulnerable and iconic marine species, including turtles, seahorses, sharks and rays. We have identified and initiated specific measures to address threats to such species (for example in Cambodia, Myanmar, and Tanzania). Highlighting the value of so-called 'flagship species' and their conservation not only delivers direct conservation benefit to these species, but can also be an important way to communicate broader messages about marine conservation to target audiences. Where species are of particular cultural value to communities, this can be an effective way of building local support for conservation measures.



ACTIVE PROJECT OUTLINES

Gökova Bay Marine Protected Area, Turkey

SECURING MARINE SITES

The Gökova Bay Marine Protected Area (MPA) is located in a biodiversity hotspot and was established to offer protection to globally important seagrass beds, commercially important fishing grounds and nursery habitats for Critically Endangered sharks. Insufficient capacity within the management authorities, however, has meant that efforts to uphold the MPA restrictions have been ineffective, allowing overfishing and illegal fishing to continue unabated, damaging sensitive habitats and species.

In 2011 FFI established key partnerships and identify opportunities for strategic intervention in this location to better manage illegal fishing activities and halt the decline of fisheries resources and associated biodiversity impacts. In 2012 FFI started a new project with a local partner – Akdeniz Koruma Derneği (AKD) – to develop a community-based model for management of Turkey's first network of strictly protected No-Take Zones (NTZs) at Gökova Bay, comprising six NTZs.

This programme has since enabled the design and adoption of a community-led patrolling and enforcement system, and provided training and equipment for local fishers to take responsibility for the management of their natural resources.

Daily patrols of priority NTZs by community rangers, supported by the Coastguard, were initiated in 2013. Regular surveillance and patrols are now in place for all six sites, including the extended boundaries of the NTZ network (agreed in 2016 to offer protection to important coralline

POLICY & PRACTICE

STRENGTHENING PARTNERS

and rocky reef habitats and extensive seagrass meadows). Over 200kg of discarded fishing gear has been cleared from the newly extended areas, and bottom dwelling marine life is recovering.

In 2018 an additional ranger station was established in one of the NTZs to enable increased patrolling, and random night patrolling was initiated. The patrols continue to deter illegal fishing activities, with incidents reduced significantly in the four years from 2014 to 2018 (from 118 in 2014 to 49 in 2017, then 24 in 2018 – although it should be noted that patrolling effort has been highly changeable over this time period)⁷ and the majority of incidents involve amateur or recreational fishers (rather than commercial trawling or purse seining operations which are now banned from the bay). A new electronic system of recording the data collected by patrols (known as SMART) was introduced in 2017 to help monitor the impact of the patrol effort, and data for 2018 are currently being analysed.

To understand the impacts of the NTZs, we have been monitoring fish populations within and outside the areas since 2008. This has shown that fish biomass in the NTZs is up to six times higher than in unprotected sites, with numbers of apex predators and commercially important groupers also significantly greater. The causes of this rapid increase within the NTZs are not yet fully understood and are likely to be attributable to a complex range of factors (which will form part of our ongoing investigations as the project progresses).

FOCAL SITES



- Gökova Bay Marine Protected Area
- Fethiye-Göcek MPA

AREA OF IMPACT

**307,000
hectares**

IMPACT

Flagship fish recovery – Threefold increase in top predator fish over 5 years

The project has also monitored fisher income, which has increased almost four-fold since the project started, boosting community support for the management measures. The use of mobile technology by the local fisheries cooperative, introduced in 2016, is helping to improve monitoring of fish landings, and generating important information to inform the design of responsive management actions.

There have been other very encouraging signs of ecosystem recovery. In 2014-15, Endangered juvenile sandbar sharks *Carcharhinus plumbeus*, loggerhead turtles *Caretta caretta* and wild Critically Endangered Mediterranean monk seals *Monachus manachus* were observed in the bay for the first time for many years. The new ranger station established this year has enabled more regular patrolling of the area most used by sandbar sharks (including for breeding), which has revealed (contrary to previous belief) that at least some sharks stay in the area year-round. This year, camera-traps installed within caves identified as potential breeding sites for the Mediterranean monk seal showed successful breeding in two caves and these sites are now under strict legal protection.

The project is also exploring opportunities to generate sustainable financing for the management of the MPA - an issue highlighted as a priority. It has become apparent that the original idea of gaining revenue from chargeable moorings for yachts in a popular part of the bay is unlikely to be viable, not least because public access to this area is now highly restricted as the Turkish President has developed a summer residence there. New options, including the government contracting the patrolling service and a small levy on certain products sold through the fisheries cooperative, are now being considered.

Impressed by the results from the NTZs in Gökova

Bay, the Turkish Government invited AKD to propose further sites for protection, and five additional sites for new NTZs along the Turkish Mediterranean coast were put forward in 2016 (in light of security concerns and continuing political uncertainty, no new activities on the Turkish Black Sea coast are being pursued at this time). Detailed consultations have been held this year with relevant stakeholders including fishing communities at Fethiye Bay – one of the proposed sites to the south of Gökova Bay – and general agreement was reached about the introduction of NTZs and areas to be closed to purse seining and trawling. The project has started supporting local fishing communities in one area of Fethiye Bay with infrastructure and capacity building, and proposals for the NTZs will be submitted to government shortly.

This project continues to thrive. The success of the local management effort at Gökova Bay has positioned AKD as a key player and this year the project received awards for the model of fisheries co-management that has been developed at Gökova Bay from the Sabanci Foundation (one of the most prestigious civil society foundations in Turkey), and from the UN Food and Agricultural Organisation (FAO). AKD is also gaining increasing international profile for their work; they have been invited to speak at the UN Oceans Conference in New York in 2017, and Gökova Bay is featured in a book⁸ as one of the 16 best MPA projects globally. Looking ahead, the continuation and significant scaling of this successful approach along the Mediterranean coastline of Turkey will now be possible through generous support from Arcadia's Endangered Landscapes Programme. FFI and AKD will continue to work in close partnership in the coming years to realise a network of ecologically connected, and effectively managed NTZs to protect critical seagrass and reef habitats along this important coastline.





Underpinning the design and management of Cambodia's first MPA

SECURING MARINE SITES **POLICY & PRACTICE** **STRENGTHENING PARTNERS**

In April 2012, we started a project to support local partners in the planning and establishment of Cambodia's first Marine Fisheries Management Area (MFMA) around the Koh Rong Archipelago. The aim was to reduce the degradation of critical biodiversity (such as coral reefs and seagrasses) by improving the sustainability of fishing practices, reducing fishing pressure by involving local communities in resource conservation, and limiting impacts from emerging tourism developments through partnership with coastal concession holders.

From 2012-2016, priority areas for conservation and management were identified within the proposed MFMA, and a zoning plan was designed in participation with local communities, which includes strictly protected No-Take Zones. These were informed by comprehensive surveys of coral reefs and the generation of updated distribution maps for mangroves and seagrass. Important biological and socio-economic baselines and monitoring indicators were also identified to help measure the impact of the MFMA, once designated. The project has also provided opportunities for student research at the site to not only help increase local capacity for marine science, but also to increase capacity for marine management within the Government Fisheries Administration.

Throughout the project, we have worked closely with communities, specifically three Community Fishery Institutions (CFIs), helping them to play an active role in the delivery of the MFMA. Each of the CFIs now has a legally recognised local management plan for specific areas within the MFMA, including No-Take Zones and fish refuges. The CFIs lead the monitoring, surveillance and enforcement of their local areas and conduct regular patrols; they are supported by the Fisheries Administration to issue warnings and fines, confiscate illegal fishing gear, and prosecute offenders. Patrols also collect information on fishing activity using the Spatial Monitoring and Reporting Tool (SMART) system, and this is used by the Fisheries Administration to track fishing activity (including illegal fishing) within the MFMA. This information allows patrols and the Fisheries Administration to focus enforcement effort on areas where the threat of illegal fishing is highest.

In June 2016, the MFMA was officially designated by the Ministry of Agriculture, Forestry and Fisheries. The 40,369 hectares area is established as a multiple use marine protected area, the first of its kind in the country. This designation is a direct outcome of five years of support from FFI to the Fisheries Administration and other stakeholders.

FOCAL SITES



- Koh Rong Marine Fisheries Management Area
- Koh Sdach Community Fishery Area

AREA OF IMPACT

40,369 hectares

Flagship fish recovery – 65% increase in groupers in all sites

Awareness of the MFMA boundary has been widely promoted (including through a poster distributed along the coast and jetty signage boards installed in 2017) and anecdotal reports suggest that fishing boats from outside are refraining from entering the area. The number of illegal incidents observed by each enforcement patrol is gradually declining (~30% reduction since 2014), which may be attributed to the deterrent effect of the patrols or a trend towards greater awareness and therefore compliance with the MFMA rules.

A monitoring plan is in place to evaluate the impact of the improved management on reef and fish recovery, relative to a 2013 baseline. Recent analysis of data from target reef sites has confirmed positive trends for keystone reef species in key protected zones of the MFMA: the maintenance of live coral cover, stable numbers of grazing parrotfish (known to keep algal growth in check and support reef recovery), and an increase in predatory groupers (indicative of a healthy balance of fish on the reef). Results from seagrass bed monitoring in 2017 also indicate an increase in seagrass cover and habitat recovery within the three sites managed by communities, with an increase of 44% in cover recorded in one site between 2014 and 2017. Further monitoring planned for 2019 will be used to corroborate these findings.

In 2018, our in-water surveys led to the discovery of super-sized and incredibly rare Neptune's Cup Sponge within the boundaries of the Koh Rong MFMA. This benthic sponge was previously thought to be extinct within Cambodia's waters and its discovery, alongside sightings of individuals within FFI's second focal site (Koh Sdach), suggests that the sponge's sandy bottom habitat and the marine life found there have the potential to thrive when protected from commercial trawling. DNA testing is now underway to help determine the genetic similarity between the specimens, and Cambodia may yet prove to hold the world's largest known population of the species.

The impact of the MFMA on local livelihoods is also being monitored through socio-economic surveys; a survey in 2017 revealed very high awareness of the MFMA designation among

communities across the archipelago. Positively, interviewees also reported perceived increases in fish stocks, and a reduction in illegal fishing over previous years (particularly by non-local fishers).

Information on how people perceive illegal activity across the islands has been used this year to complement data from the patrol teams and to help to identify weaknesses in management systems, in order to target enforcement patrols to areas most likely to suffer from illegal fishing activity. The findings from this innovative work have been published within the Cambodian Journal of Natural History on an open-access platform⁹.

Developing sustainable financing for management of the MFMA is critical for its long-term success. In collaboration with a range of stakeholders, FFI has supported an assessment of potential financing options, and the development of an action plan to diversify and expand funding sources for the CFIs and the wider MFMA. A new mechanism for collecting revenue from visiting tourists has been trialled through the installation of 10 voluntary donation boxes - which this year has leveraged some modest finance to underpin the costs of CFI management activities. We have also significantly ramped up our support to the Fisheries Administration this year to help them evaluate and engage with new investment models and impact investment funding streams for the Koh Rong context, and are exploring new partnerships in this regard.

Despite the positive start for this site since its establishment in 2016, significant changes within the Cambodian Government and a lack of coordination between ministries has presented challenges for the effective implementation of the MFMA this year. A new Marine National Reserve designation was issued for the Koh Rong archipelago in early 2018, superseding the legal basis for the MFMA and moving responsibility for delivery from the Fisheries Administration (who have been a key partner and recipient of training and capacity building support) to the Ministry of Environment.

FFI staff have facilitated bilateral meetings between the ministries and strongly advocated to maintain the existing zonation and community-based patrol activities, to ensure that the systems that are already working so well at this site were not replaced or undermined. With the signing in June 2018 of a joint agreement between the two government ministries, we feel confident that this situation can now be positively resolved and that this wider collaboration will aid effective long term MPA implementation.

On a national scale, we continue to be involved in a Taskforce focused on reducing Illegal, Unreported and Unregulated (IUU) fishing and the refining of a National Action Plan on IUU, drafted in 2016. The pressure to address this issue has already resulted in some positive changes; in 2016 it was announced that foreign-owned ships would no longer be able to fly the Cambodian flag as a “flag of convenience”. Moves are also underway to register the Cambodian national fishing fleet, a priority action identified in the draft National Action Plan. This year we have established a new partnership with OceanMind - a not-for-profit organisation which applies technology to assess fisheries sustainability, compliance and illegal fishing activities – to conduct a landmark assessment of fishing activities (legal and illegal) both across the Cambodian EEZ and within FFI

project sites. This study responds to a critical evidence gap and will generate important information for the Fisheries Administration and other national government bodies to inform their efforts to reduce illegal fishing. The results of the study are anticipated shortly.

While our support will continue to be needed in Koh Rong in the short term, we anticipate that, as sustainable financing options are realised, the increased capacity of our partners will enable them to independently manage the site effectively. We have continued to build on our positive marine conservation profile in the country this year to expand the scope of our work. In our new focal site on the archipelago of Koh Sdach (where we started working in 2017), a new CFI committee was elected in 2018, a patrol team has been created and the first patrol training has taken place, using lessons from implementing similar systems in Koh Rong to speed up implementation. We are examining more closely the specific needs of targeted species groups (see pg.14), and will continue to assess opportunities to expand our efforts to other priority areas in order to facilitate the eventual establishment of a network of MPAs along the Cambodian coastline.





Community-led seahorse conservation in the Koh Rong archipelago, Cambodia

SECURING MARINE SITES

Seahorses are vital components of shallow-water marine ecosystems, occurring in seagrass beds, mangroves, reefs and estuaries in temperate and tropical waters, where they prey on bottom-dwelling organisms. They are a chronically under-researched group: 12 species are listed as threatened by IUCN, but 27 of the 48 currently recognised species are listed as Data Deficient (insufficient evidence to make an assessment). It is clear, however, that they are highly vulnerable to the destruction of coastal habitats, and large numbers are caught as by-catch in trawl nets. There is also a known global trade in seahorses for traditional medicine, aquariums, souvenirs and tonic foods - each year, an estimated 15-20 million seahorses are caught and traded around the world.

The Koh Rong Archipelago in Cambodia, with its sand and mud flats, seagrass beds and coral reef habitats, is thought to be a hot-spot for seahorses, with six species recorded. In 2016 we initiated work within the Koh Rong Marine Fisheries Management Area (MFMA) (see pg.14) to better understand the status of, and threats to, seahorse populations (including from the local seahorse trade), in order to inform locally relevant conservation solutions.

In 2017, market surveys to assess the level and volume of seahorse trade were completed across three coastal provinces (Kep, Kampot and Preah Sihanouk), confirming the presence of seven species of seahorse along the Cambodia coastline, and improving knowledge on species ranges, and local trading patterns. This led to some encouraging action from the Fisheries Administration, who reported a specific instance of preventing the transit of seahorse products through the country in October 2017. Further market tracking took place in 2018, which revealed the international scale of the trade, with dried seahorse specimens ultimately destined for China, Thailand and Vietnam. Crucially, we have learned that the species is almost always caught as incidental bycatch rather than specifically targeted by fishers. This means that interventions to prevent the sale of these species (which we anticipate that our government partner, the Fisheries Administration will increase in 2019, with this new intelligence) will not unduly impact the livelihoods of local fishers and therefore may be more easily accommodated. The confiscation and release of 28 live seahorses caught by fishers using mosquito nets in October 2018 is a positive first step.

FOCAL SITES



- **Koh Rong Marine Fisheries Management Area**
- **Koh Sdach Community Fishery Area**

IMPACT

Seahorse sightings – More seahorses recorded in 2018 than in past years

In-water surveys (using the globally recognised iSeahorse methodology) have been conducted in Koh Rong to assess the impact of the MFMA zoning and enforcement on seahorses and their habitats. 2018 surveys found the highest density of seahorses ever recorded in three years of monitoring at this site, with 27 seahorses observed and two species positively identified (Hedgehog seahorse *Hippocampus spinosissimus* and Tigertail seahorse *Hippocampus comes*). This increased density, as well as the fact that the overwhelming majority were also juveniles, suggests a level of population health that may be a sign that threats are reducing (although this needs further repeat monitoring to confirm it is not simply a seasonal fluctuation).

Technical training has been provided for local staff and partners in seahorse identification and survey methodologies, and an identification guide has been developed and translated into Khmer and approved by the Fisheries Administration. This will ensure consistency in the use of common names of seahorses for future data collection; 200 such guides were distributed in 2018 and have been directly used by the Fisheries Administration in apprehending illegally caught seahorses. We anticipate further developing this work in 2019, and will continue to engage in awareness raising, and exploring the potential of seahorses as a local flagship species to generate support and pride in the new MFMA.





Participatory research and action for conservation on Maio Island, Cape Verde

SECURING MARINE SITES **POLICY & PRACTICE** **STRENGTHENING PARTNERS**

The archipelago nation of Cape Verde is a marine biodiversity hotspot, supporting a wealth of globally important and endemic marine species, including 17 species of whales and dolphins, more than 60 species of sharks and rays, and five species of marine turtle (including one of the three largest nesting populations of loggerhead turtles in the world). As the closest island to the capital Santiago, Maio Island is under increasing pressure from tourism, coastal habitat destruction, and unsustainable and illegal fishing. However, there is a lack of basic data on the occurrence and distribution of species, poor awareness of the importance of these species to ecosystems, and limited local capacity to develop strategies and to address conservation needs.

In 2013, FFI initiated a series of small-scale activities to support local partners to plan the first effective protection measures for species and habitats on Maio Island. These included contributing to consultations with local stakeholders to inform the development of a management and zoning plan for an island-wide protected areas network (which would see existing terrestrial protected areas expanded and connected, and new protection measures developed for important marine habitats) and helping partners to consider research data and local community perceptions in the design of management measures.

Although a network of seven marine and terrestrial protected areas exists, covering a marine area

larger than the island itself, much of the area was only gazetted in 2014 and a five-year management plan for the sites submitted to the Government in 2014 has not yet been approved by the National Assembly. In 2016, the project led the development of a monitoring plan for the MPA sites (to help assess their ecological and social impacts), but this too is awaiting government approval. To help unblock this process, FFI and our partner in Cape Verde, Maio Biodiversity Foundation (FMB), have engaged various high-level government ministries this year to understand barriers and to develop a revised plan to push forward the approval of the protected area management plan, which we expect to advance in the coming months.

Despite the lack of formal government approval for these key documents, the project has been working to stimulate improved patrolling and enforcement in the protected areas. During 2018, all five protected areas with marine components have been regularly patrolled from the coast by government agencies and FMB rangers, and fish inspectors have been inspecting local ports; both these activities have been supported logistically by FMB. As would be expected, this increased enforcement effort has led to an increase in detection of illegal activities, notably illegal sand extraction, but we anticipate incidences will decrease as the enforcement becomes a deterrent.

FOCAL SITES



- Parque Natural do Norte da Ilha do Maio MPA
- Reserva Marinha das Casas Velhas MPA
- Reserva Natural de Praia do Morro MPA
- Reserva Natural da Lagoa Cimidor MPA
- Paisagem Protegida das Salinas do Porto Ingles MPA
- Brava Island

AREA OF IMPACT

28,487
hectares

IMPACT

Reduced threats – sightings of damaging fishing declined by 78%

Although the police received a vessel for maritime patrols in December 2017, a lack of personnel trained in boat handling and navigation delayed its use for at-sea patrols until April 2018 and has limited patrol frequency to 1-2 per month. A recruitment process is underway for further trained police officers and we hope to have them in place shortly. Meanwhile, the “Guardians of the Sea” initiative, involving local fishers in monitoring their inshore fishing grounds for illegal activities and megafauna species has continued to gain momentum, with 17 fishers now involved and reporting incidents, although it appears some participants may be reluctant to report all the incidents they see, due perhaps to the involvement of individuals known to them.

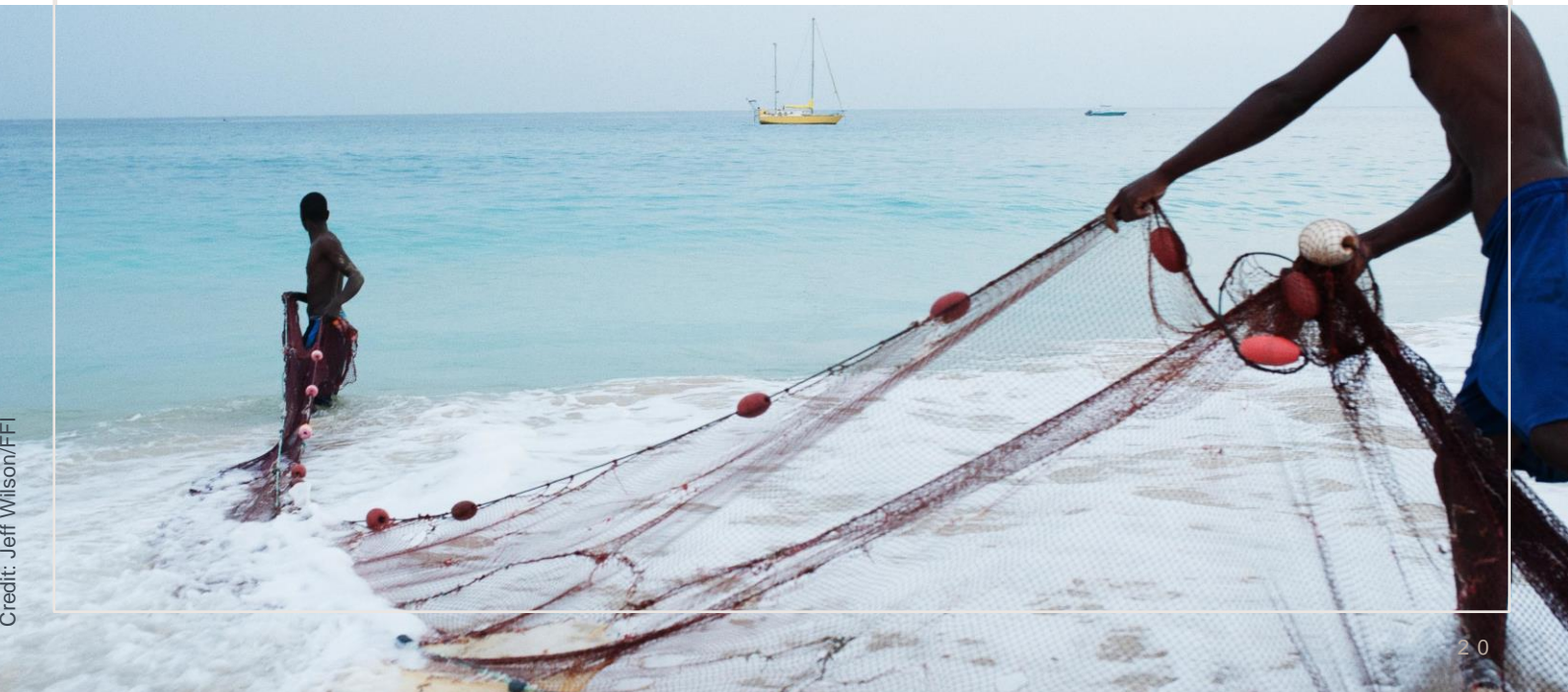
In parallel, the project is identifying, and where relevant supporting, coastal communities to diversify their income. A homestay programme launched in 2017 generated over \$19,000 this year in income for local communities, linked to the MPAs. Social surveys were conducted in 2017 in order to monitor attitudes towards conservation management and the impact of increased enforcement. This demonstrated a high level of awareness and support for MPAs (e.g. 90% of respondents believed that the protection of MPAs could increase job opportunities). These will be repeated at the end of 2018.

In 2014, surveys confirmed the presence of nursery sites and breeding grounds for sharks in the area, and highlighted the threats posed by local fishing activity (sharks comprise 72% of non-target catch). A code of conduct for the safe

handling and release of sharks was developed for use by sport and recreational fishers, and 129 fishers have been trained in shark monitoring and safe release techniques (with 48 fishers pledging to stop catching sharks and rays in 2015).

Protection of nesting turtles is a priority for FMB and efforts have continued this year, with over 38 km of beaches around the island patrolled by 70 guards and volunteers during the nesting season. This year has seen extremely high numbers of turtle nests, with 11,010 nests recorded by early September; the number is expected to reach about 13,000 nests by the end of the season. The rate of turtle poaching has fallen over the last seven years, and low poaching rates were maintained in 2018, despite the increased numbers of turtles nesting. This local effort will be further supported by a new legal framework for the protection and conservation of marine turtles, introduced nationally this year.

We have continued to support FMB to build the foundations for protected area and marine resource management, providing training for community representatives, partner and government staff in a range of management and survey skills and including English language training in 2018. FFI’s extensive institutional and financial support to FMB over the past six years has been critical to the continued existence of the organisation, including through a period of instability and significant staff turnover. Training provided has covered financial management, strategic planning and fundraising.



In 2016 we supported the recruitment of key staff to the organisation, including a new Director. In 2017, FMB received a substantial three-year grant (with potential for a further three years) from an independent donor, who stated that FFI's ongoing strategic guidance to the organisation was a key factor in their decision to make the award.

In 2018, FMB entered a new partnership with the University of Barcelona to gather data on the White-faced storm petrel, a seabird that nests on the island. This year, three FMB staff are participating in the MAVA conservation leader training, while six staff have received training in bird, shark and cetacean monitoring and conservation. In recognition of their growing expertise, FMB have been asked to train staff from the Ministry of Environment and Agriculture in monitoring protected areas, and a workshop will be held before the end of 2018.

There are several signs suggesting that the Government of Cape Verde is serious about improving management and conservation, linked to more sustainable tourism. Two islands, Maio and Fogo, are being put forward for UNESCO Man and Biosphere Reserve status, and the Government

has secured a six-year GEF-funded project focused on conservation and tourism for four islands (including Maio), although the start of this project has been substantially delayed.

We anticipate a continued partnership with FMB in the coming years, but as the organisation continues to mature and strengthen, we have been able to adopt a more hands-off role, allowing us to explore opportunities to replicate this successful approach on another island. This year we have engaged with a new partner Biflores, a small NGO on the highly biodiverse Brava Island, where a significant need for support and capacity building to improve marine management has been identified. Biflores have been supported to establish a functioning office and to recruit a marine staff member (who has previously worked for FMB). Extensive data is being collected to help identify marine conservation needs and provide a baseline against which future change can be measured; two applications for funding to support the development of marine conservation on the island have already been submitted to donors. We look forward to continuing to build and develop this new programme in 2019.

Collaborative marine conservation in the Myeik archipelago, Myanmar

SECURING MARINE SITES

POLICY & PRACTICE

STRENGTHENING PARTNERS

Myanmar's 2,278 kilometre coastline hosts a considerable diversity of coastal wetland habitats, including regionally significant mangrove forests. The coral reefs of the Myeik Archipelago in Tanintharyi region have been highlighted as a priority for coral conservation in the Bay of Bengal.

However, when we started our engagement, the technical and institutional capacity of the Myanmar Government and local civil society to deliver marine conservation was critically low. In addition, information on Myanmar's marine ecosystems was very scarce, constituting a significant regional

knowledge gap. Thus, alongside development of a framework for MPAs around the Myeik Archipelago and the introduction of the Locally Managed Marine Areas (LMMAs) concept to Myanmar, FFI has needed to invest in both baseline data collection and basic training to underpin any further conservation management gains.

FFI's regional team undertook valuable scoping activities in 2010, developing our understanding of the local context for marine conservation and the country's technical needs and priorities.

FOCAL SITES



- Langann Locally Managed Marine Area
- Don Pale Aw Locally Managed Marine Area
- Ling Long-Parawah Locally Managed Marine Area
- Meinmahla Kyun Wetland of International Importance

AREA OF IMPACT

24,165
hectares

IMPACT

Innovative protection – Community-led management operational for first time

As a result, we are now leading a ground-breaking marine project in the country to (i) build in-country knowledge and technical skills, (ii) design appropriate governance and management models in the Myeik Archipelago and the Meinmahla Kyun Wildlife Sanctuary and (iii) support replication of these models to meet wider marine conservation targets.

To provide vital information needed to underpin marine management, we have undertaken comprehensive biodiversity assessments of the Myeik Archipelago, training government and civil society representatives in key survey and data analysis skills as we go. A series of research cruises has brought leading experts to Myanmar and the data generated has further highlighted the conservation value of the Tanintharyi coast and the imperative for effective management of the area. Results from 2018 coral reef monitoring have, for example, shown that the proportion of healthy, living coral across the archipelago is nearly 60% (across 140 surveyed sites), with much of the biologically rich habitat now either legally protected or proposed for protection. Work has also commenced, in collaboration with the Smithsonian Institute, to identify the major inshore fishing grounds and catch type within them, to inform national marine management and fisheries planning.

Parliamentary approvals were received in 2017, leading to the establishment of the first three LMMAs, covering over 105km² of ocean, with 6% under complete “no take” protection. A further two LMMAs, covering an additional 24km², have been proposed this year following requests from local communities for similar action. The designation of these community managed areas, the first in the country, is a significant milestone: it paves the way for local groups to become active stewards of their environment, and provides a model that allows the relevant authorities - who at this stage remain chronically under-resourced - to use devolved management structures to help them support a wider range of sites more efficiently.

The communities within the existing LMMAs have maintained active patrolling of their local waters

since 2017 (facilitated by the provision of a boat and training to each community through the project) with support from the Department of Fisheries and the Navy. In 2018, the first effects of this community-led enforcement were felt as patrols issued warnings to 13 trawling vessels illegally entering the sites, leading to a reported reduction in conflicts with these vessels. Illegal entry into these locally-led sites remains an issue (especially at night) and will be the focus of renewed efforts in 2019. Management plans for each of the LMMA sites – which guide the specific rules and uses in each site - have been drafted, in consultation with the communities, and submitted to the authorities for approval. A new initiative to record information on the size and species caught by fishers within the LMMA sites was launched in 2017 and will generate important data to monitor the effectiveness of these areas.

Recognising that limited economic opportunities for coastal communities often drives poor compliance with regulations and motivates the use of damaging fishing practices, the project has provided support for small-scale livelihood initiatives, and has helped finance local artisanal fishers transitioning to less damaging fishing gear. In 2018, we have been working to increase community understanding of markets for fisheries products with a view to improving local incomes and catalysing market-based incentives that reward sustainable fishing practices. We are also helping the Department of Fisheries to develop the skills needed to oversee these new community co-management arrangements. These skills will be vital to support the future expansion of community-led marine management areas throughout the archipelago (ten further communities have already expressed interest in this model of management for their marine areas). Government officials at the highest level have welcomed the co-management approach, and the Department of Fisheries has confirmed that the model created by the pilot LMMAs is helping to shape the new fisheries law, ensuring greater civil society involvement in sustainable resource use.

In parallel to the initiatives in the Myeik Archipelago, the project has also supported community approaches to management at the Meinmahla Kyun Wildlife Sanctuary. The project established the first systematic and regular patrol system for the Sanctuary, creating opportunities for community members to engage in Sanctuary management through joint patrols with forest rangers. Information from FFI-led biodiversity surveys informed a successful proposal to designate the Meinmahla Kyun estuary as a wetland of international importance (granted in 2017) which affords critical protection to this site – the last remaining important mangrove area in the Irrawaddy delta – underpinning fisheries, shore birds and Myanmar’s largest population of saltwater crocodile *Crocodylus porosus*. In 2018, we have continued to work with partners at the Sanctuary (through co-finance) to identify ongoing management needs in support of the new designation.

These models of marine management, together with the improved information on marine resources in the Myeik Archipelago, are now providing the impetus for development of a wider MPA network in the archipelago (within which the LMMAs would be nested). In 2018, we continued to work with representatives from government, universities, the fishing industry and local communities to support the identification and planning of MPAs in priority sites across the archipelago, as well as providing on-the-job training for staff in facilitating and documenting these consultation processes. Plans for three new MPAs – covering around 2,000km² and therefore increasing legal protection in the archipelago by nearly 20 times – have been prepared and are widely supported by local

communities and industry alike. Considering government interests to include protection for the terrestrial habitats of any islands falling within the proposed MPA boundaries, we are now revisiting consultations with key island communities to sensitise this idea. We will seek inputs on land-use and the protection of island watersheds and forests, as a compliment to the marine conservation strategies proposed, before these plans are submitted for consideration. We continue to drive the development of a new national policy for MPA establishment in Myanmar and will host a national workshop around policy creation before the end of the year.

We have continued to develop the wider strategy for our marine work in Myanmar this year, in order to scale our scope for impact across the country; for example, contributing information on conservation priorities and ecosystem sensitivities to inform a national tourism development plan. To ensure that future MPA designations take into account known habitats and threats facing important species (from fisheries, tourism, and other developments), we have supported the formation of a Marine Turtle Working group, and convened training events on turtle biology and survey methodologies for local practitioners. In 2018, concerns raised by FFI to the Department of Fisheries over the potential impacts of trawling on marine turtles has motivated the passing of a new law in Myanmar which requires the fishing sector to use bycatch reducing devices on drag nets, trawl nets and large stow nets. In addition, we have also developed and secured funding for a new strand of work launched in 2018 that will safeguard vulnerable shark and ray populations across the Myeik archipelago (p.27).





Building capacity for long-term shark conservation in Myanmar

SECURING MARINE SITES

POLICY & PRACTICE

STRENGTHENING PARTNERS

While information on shark species population status and critical habitats in Myanmar is very limited, records show that Myanmar may be home to as many as 58 shark and 71 ray species (including Critically Endangered (2), Endangered (2) and Vulnerable (18) shark species). Despite a nationwide ban on shark fishing, an active fishery for sharks and rays persists, raising concerns around the impacts of high levels of exploitation on the health of shark and ray populations.

In response to these concerns, we have initiated a new programme this year in collaboration with government partners, NGOs, local and international universities and research institutions, to support the Government of Myanmar to realise their ambitions to ensure the conservation and management of sharks and rays. Through investments into science, advocacy, and capacity building, this project will further shark conservation

in Myanmar by building the capabilities of government and civil society partners to lead and sustain conservation measures, deter and reduce illegal landings of sharks and mobulid rays, increase adoption of measures to reduce shark by-catch, and increase protection of critical habitats used by sharks and rays in the Myeik archipelago.

In this first year of the project, we have led on the development of the country's first National Plan of Action for Sharks. When approved, this plan will act as a catalyst for better legal protection of sharks and we expect this to be also accompanied by similar policy measures for rays. We have also led the push for more direct measures to reduce threats to sharks and rays, including the investigation of potential adaptations to Myanmar's large-scale fishing vessels to reduce the incidental capture of these species.

FOCAL SITES



- Myeik archipelago

KEY IMPACTS

New policy - National Plan of Action for Sharks and Rays drafted



Expanding marine conservation on the Pacific Coast of Nicaragua

SECURING MARINE SITES **POLICY & PRACTICE**

The foundations laid by the multi-country project in Central America (see pg.67) enabled FFI and local partners to secure funding for a complementary project over a larger geographic area in Nicaragua, focusing on excluding harmful fishing practices (notably blast fishing with explosives and bottom trawling for shrimp) through the development of collaborative marine management approaches and regulatory reforms.

Through this ambitious project, FFI is working with local partners, the Government, the tourism industry and coastal communities, in an 80-kilometre-long marine management area known as the ‘Coral Corridor’. The project is helping to improve the effectiveness of two existing Marine Protected Areas (MPAs), is in the process of establishing a third MPA, and plans to introduce new fishery management tools, notably No-Take Zones (NTZs) and fisheries restrictions; as of 2018, collaborative committees had been formed in each MPA, the first of their kind in the country. Linking with, and building upon, our existing work to conserve sea turtles in Nicaragua (see pg.33), this project is seeking, in particular, to address the threats posed to turtles from fishing practices in nearshore waters, through gear exchange programmes, improved gear design, and the prohibition of harmful fishing methods in areas frequented by turtles. The project combines awareness campaigns, increased enforcement, livelihood support and legal measures to move towards this goal.

Although work to eliminate harmful fishing practices has been progressing well, civil unrest within the country in 2018 has posed numerous challenges for project delivery. Having gained formal support from two municipalities to work collaboratively to eliminate blast fishing in 2016, innovative joint enforcement patrols – involving communities, the navy and local NGO partners – were set up in all three sites and contributed to a dramatic decline in the use of explosives to fish across the entirety of the Pacific Coast; whilst the 2018 unrest has not entirely derailed this momentum, blast fishing does now appear to have returned in some northern areas due to the slowing of government-led enforcement efforts.

Improved compliance with fisheries regulations is being promoted through support and training to municipal authorities, the fisheries authority (INPESCA) and fishers. Fishers are being registered, which helps to provide valuable information to manage the fishing activities of local fishers and those from other areas. To address the significant issue of turtle by-catch, a hook exchange programme is underway and its impact will be assessed by on-board observers on fishing boats. So far, over 102,400 by-catch reducing hooks have been supplied to 512 fishers across five focal communities through this initiative, with 100% of longline fishers interviewed now reportedly using these hooks. In 2018, the fisheries authority mandated the use of these hooks for all longline fishing methods in national law, partly in response to the success of the exchange programme.

FOCAL SITES



- Río Escalante Chacocente Wildlife Refuge
- La Flor Wildlife Refuge
- Gigante Marine Life & Development Zone

AREA OF IMPACT

118,451 hectares

IMPACT

Threats reduced – Over 500 fishers switch to using bycatch-reducing hooks

As well as tackling blast fishing and turtle by-catch, the project is also working to ban bottom trawling along the Pacific Coast of Nicaragua. Although the most important fishing industry body in Nicaragua, Cámara de la Pesca de Nicaragua (CAPENIC) is convinced of the case for phasing out this damaging practice, the current political climate and the widespread inactivity of many government institutions in 2018 has meant the ban currently appears to be unfeasible; the team has however, continued to maintain the groundwork for policy change, collecting information on public opinions towards trawling, the vast majority of whom understand the effect this practice can have on marine ecosystems.

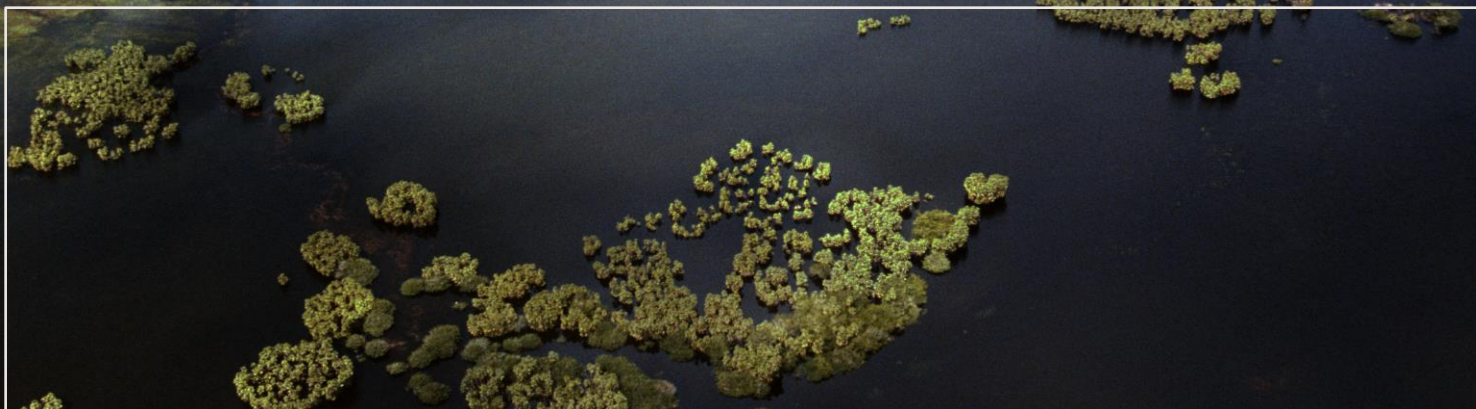
A key objective of the project is the designation of a new MPA. A proposal for a community-based conservation area at Gigante was approved in 2017 by local authorities, but is still awaiting final government approval. This proposal, produced in collaboration with fishers and with regulations and zoning set by the fishers themselves, is a completely novel initiative for Nicaragua. The project is helping to generate social and political support for this initiative, and a neighbouring community has already expressed interest in developing a similar proposal for their area.

As of 2018, it is clear that this approval must come from Presidential-level and, while the formal designation therefore appears to be on hold, FFI continues to work with communities and municipal authorities to improve fishing practices within the undesignated MPA.

In order to generate critical knowledge on the status and threats to marine life in the Coral Corridor, biannual dive surveys are being conducted; this also provides on-the-job training for local staff, improving their skills in data collection, analysis and interpretation. The information generated has been provided to the National Fisheries Authority and has been used for the project stakeholders and communities in management decisions such as zoning and determination of no-take areas.

Whilst the project is already gaining traction to tackle key issues within the Coral Corridor, the possible development of the Nicaragua Canal remains a future threat to the project and the whole coastline. At present this mega infrastructural development is on hold due to the continuing civil unrest and uncertainties around the financing of the project, but we will continue to track any change in the status of this major threat.





Connecting coastal communities for integrated seascape management in Atlántida, Honduras

SECURING MARINE SITES

POLICY & PRACTICE

STRENGTHENING PARTNERS

The Atlántida coast of Honduras encompasses highly biodiverse coastal wetlands, well preserved mangrove forests and a patchwork of islands at the southern tip of the Mesoamerican Barrier Reef. This rich tapestry of coastal and marine habitats is home to Critically Endangered Hawksbill turtle *Eretmochelys imbricata*, Endangered Antillean manatee *Trichechus manatus* and Critically Endangered Utila Spiny-Tailed iguana *Ctenosaura bakeri*, as well as thriving coral reefs and populations of commercially important fish species.

Building on previous work at the Cuero-y-Salado Wildlife Refuge through the Central Americas regional marine project (see pg.67), FFI and five Honduran partners are working to improve the effectiveness of this Refuge and to link it with two other (ecologically connected) Marine Protected Areas - the Cayos Cochinos Marine National Monument, and (part of) the Bay Islands Marine National Park - to establish an integrated management system that conserves critical habitat and species, and enables fishing communities to improve their livelihoods while taking increasing responsibilities for management. By increasing the dialogue and partnerships between stakeholders in the three areas, this seascape-level project aims to ensure cooperative management for this ecologically connected marine system.

In 2017, the Seascape Community Roundtable – the newly created body which co-ordinates actions across these three protected sites – met for the first time to agree on an ambitious programme of conservation measures, ranging from elimination of bottom trawling across all sites to widespread mangrove restoration. In 2018, the Seascape Community co-ordinated its first national forum, presenting their collaborative work to restore focal species and tackle pervasive biodiversity threats; the attendance of the President of the national fisheries authority at this event represented a major endorsement of the Seascape approach as a novel model to deliver effective Honduran marine management.

The emerging network has catalysed increased participation (for example, the number of people involved in monitoring of threatened manatees, turtles and iguanas increased from 130 people to nearly 250) as well as new opportunities to engage with the Honduran Navy on issues of enforcement and tackling illegal fishing. Surveys and mapping of key habitat features are also being undertaken, to help provide a seascape-wide evidence base to inform management of the inter-connected habitats, key species and fisheries.

FOCAL SITES



- Bay Islands Marine National Park
- Cayos Cochinos Marine National Monument
- Cuero y Salado Wildlife Refuge

AREA OF IMPACT

180,313
hectares

IMPACT

Strict protection – 6 km² of new no-take-zones protect inshore waters in Utila

Building on effective early results in seascape-wide mangrove protection and restoration (10 hectares restored and a further 6,500 hectares better protected across all sites), this co-ordinated seascape effort is already showing evidence of making individual MPAs more effective and demonstrating early signs of biodiversity recovery:

- Cuero-y-Salado Wildlife Refuge: Damaging fishing practice, especially the use of nets with small mesh sizes (which captures juvenile fish), has reduced dramatically from 34 incidents in 2017 to only 9 in 2018, thanks to better, more targeted patrolling. In addition, the Refuge's small manatee population (~30-40 individuals) has suffered no mortalities this year, compared to two killed in 2016 through the greater capacity of an informal local "resource guard".
- Cayos Cochinos Marine National Monument: Only one instance of damaging bottom trawling was recorded in 2018, compared to over five per year in previous years. Hawksbill turtle poaching (or specifically uncovering of nests) reduced from 18 incidents in 2017 to only 10 this year, with several former poachers now

helping to patrol beaches and to help co-ordinate celebratory Turtle Festivals on the islands.

- Bay Islands Marine National Park: Project partners worked together to designate two new No-Take Zones (referred to locally as "Fish recuperation zones") which prohibit all fishing across nearly 6km² of rich inshore waters around Utila island.

In 2019, we expect these positive results and opportunities across the three MPAs and between the network of implementing partner organisations to continue to grow; a new collaborative focus on plastic pollution (see p.51), for example, promises to harness the collective ability of the seascape forum to drive policy change as well as on-the-ground action on this pervasive issue. We are also exploring opportunities for new, targeted interventions to increase protection for the endangered Antillean manatee which relies on the seagrass and mangrove habitats of this area, but which links to partners and conservation efforts across the Mesoamerican Barrier Reef.



Co-management of marine resources in Tanzania

SECURING MARINE SITES

POLICY & PRACTICE

STRENGTHENING PARTNERS

The Pemba Channel Conservation Area (PECCA) in Zanzibar was declared in 2005 to protect the unique biodiversity and critical habitats of the area, including deep water coral communities, seagrass beds and concentrations of sailfish, black marlin and tuna. Through our partnership with a local NGO, FFI identified an opportunity to strengthen the management of this important site. The project seeks to establish and equip village level associations (known as Shehia Fishers Committees) to play an active role in the management of their marine resources, with a particular focus on improving the sustainability of artisanal fishing practices within PECCA, and reducing illegal and destructive fishing practices.

Following initial scoping and in-country consultations in early 2015, we worked with local partners Mwambao Coastal Community Network and the community of Kisiwa Panza to support the establishment and monitoring of the first temporary No-Take Zone within PECCA, restricting fishing for octopus – an important resource for local consumption and trade - in response to declining catches. The pilot closure, conducted over a small area for a period of three and a half months, was successful, with local fishers reporting increases in the size, weight and value of octopus catches following the re-opening of the area to fishing.

During 2016, the project expanded work to a second community – Kuuu. Temporary octopus closures were put in place for both sites and once again the communities reported significantly higher octopus catches after the closure. Preliminary analysis of the data gathered locally confirms that catches during the short open season are on average 2.7 times greater compared to before the closures. Locally agreed regulations (by-laws) and support to community Fisher Committees has helped to ensure that the closures could be effectively implemented. Although designed to maximise benefits to the octopus fishery, the effect of the closure, which prohibits any human entry,

has delivered benefits for other species in these areas, with anecdotal observations of greater abundance and size of other locally valuable fish species (including emperors, snappers and parrotfish).

This year we have continued to work with our two focal communities. In Kisiwa Panza we have supported meetings and workshops for the Fisher Committee and wider community to establish how temporary octopus closures will be restarted and managed. A revenue sharing mechanism is in development to ensure that a portion of the income generated from octopus catches is shared with the Fisher Committee (to cover their operating costs), the patrol team and a community fund to support community projects that benefit the wider community.

Kuuu have continued to successfully implement and manage their octopus closures and a permanent, strictly protected No-Take Zone. Daily patrols have revealed a reduction of more than 80% in the number of breaches of by-laws. In addition, the results of participatory in-water monitoring indicate that ongoing management, in particular the designation of the core No-Take Zone, are having positive impacts on the health of reefs demonstrated by higher densities of urchin-controlling fish species (e.g. parrotfish and goatfish), macroinvertebrates (e.g. sea cucumbers which are easily overharvested) and schools of juvenile fish within the closed areas compared to control sites.

Whilst the communities we are working with have some capacity to enforce their local by-laws, it was identified in 2017 that there is a need for both further support from other relevant agencies involved in marine management, as well as greater clarity on the roles and responsibilities of different players in ensuring its effectiveness. To meet this need, a series of training sessions were organised in 2018 for the Fishers Executive Committee, the Department of Fisheries and PECCA staff.

FOCAL SITES



- Kisiwa Panza Fishing Grounds
- Kuuu Fishing Grounds
- Makongwe Fishing Grounds

AREA OF IMPACT

5,993
hectares

IMPACT

High fish numbers – Two times more parrotfish found in area permanently closed to fishing

This project is breaking new ground in terms of applying existing legislation to enable community participation in marine management, and therefore clarifying the process and standards to be followed is an essential component of work.

As part of efforts to develop the sustainability of the Fisher Committees to allow them to implement management measures over the long-term, we supported local partners and communities in 2017 to better understand the market system for octopus. This has included bringing together all actors in the market chain (including fishers, buyers, traders) to agree how the market could be improved (for example, minimum size limits and consistent pricing across communities, including a levy to ensure revenue sharing), and to develop the business case for sustainable octopus management.

The proposed market improvements have been trialled in both Kisiwa Panza and Kuuu this year and have succeeded in demonstrating the collective benefit of octopus closures to communities. A subsequent workshop gathering the relevant market actors enabled the Fisher Committees to develop a protocol for their engagement with buyers, ensuring maximum benefits for both parties and wider community members. The team also had promising initial conversations with a major octopus exporter who expressed interest in the community-led management model and the possibility of premium prices for larger octopus.

Last year saw the exploration of a community credit scheme, and this year it has been made accessible to community members in Kuuu in exchange for compliance to management

measures and/or partaking in the implementation of the local management plan. If the scheme proves successful, there are plans to implement it in further communities in 2019. Fines from infringements are also being used to support enforcement patrols, but more substantial and reliable revenue streams will be needed. Other options for sustainable income, such as the committees taking on management of fish landing sites, and direct contributions from tourist revenues where tourism businesses benefit from improved marine management, are also being explored.

The successes realised within these two communities has generated wider interest and significant scope for replication. This year, we led scoping visits to six communities neighbouring Kisiwa Panza and Kuuu, to determine which would be best to engage in the management of their inshore waters. Makoongwe was selected as the first community to receive project team support as the community proved very willing to initiate closures, and they are based on an island with numerous fishing grounds and diverse marine resource uses. So far training has been provided to build the capacity of the Fisher Committee and they have performed participatory resource mapping. The project team plans to identify appropriate closure options and implement a closure by the end of 2018. The overarching ambition of this project is to bring better management across the full extent of the PECCA; therefore, we will continue to empower more communities and develop government capacity to support co-management. Ultimately, we believe this will lead to improved marine management and more secure, sustainable livelihoods, in this very important area.



Protecting and preserving the coral reefs and traditional fishing of Aceh, Indonesia

SECURING MARINE SITES

POLICY & PRACTICE

STRENGTHENING PARTNERS

The coral reefs and waters off Aceh, northern Sumatra, support rich and abundant marine life, and provide important breeding grounds for fish species. Even before the devastating tsunami in 2004, parts of this rich reef system were being destroyed by unregulated and destructive fishing practices (including the use of dynamite and cyanide).

In 2006, FFI started work with communities on the most north-westerly island of Indonesia, Pulau Weh, to re-establish traditional village-based fisheries management systems, build the capacity of communities to reduce destructive fishing threats, and to diversify their livelihoods away from damaging fishing practices through a micro-credit scheme.

FFI stepped up this initiative in 2010 in order to begin replicating the local management success from Pulau Weh on two more islands, Pulau Simeulue and Pulau Banyak, and to support the establishment of a series of new community-managed areas, known as Locally Managed Marine Areas (LMMAs).

Over the eight years since it started, the project has strengthened and empowered customary institutions and has given communities greater confidence to participate in managing their resources. In Pulau Weh, the LMMA established under this project now operates independently. Fishers actively patrol their own waters to encourage compliance with local regulations, and through collaborative partnerships with the Navy and fisheries authorities, have significantly reduced illegal fishing threats and improved the timeliness and effectiveness of responses to illegal fishing violations.

In Pulau Simeulue and Pulau Banyak, traditional community leaders from target communities have improved their understanding of local and national regulations, and organised themselves to undertake patrols and to intercept, document and report illegal fishing incidences within their customary areas. The LMMAs on Pulau Simeulue fall within a larger-scale Marine Protected Area (MPA), and our support has helped ensure that traditional leaders and communities are represented on the MPA management council, with local stakeholder interests adequately represented in the newly-developed provincial MPA management plan.

The community-led patrolling of the MPA – first introduced in 2015 – has led to fewer incidents of illegal and damaging incidents being detected per patrol (a 93% decline in observations of compressor fishing was recorded in one LMMA between 2015 and 2018) and as well as direct improvement in coral reef health, with 2018 biological surveys finding nearly three times higher reef fish biomass in community-protected areas compared to other non-managed areas of the MPA. In addition, we are increasingly trying to characterise and understand the lack of alternatives driving damaging fishing practices in order to better respond to their prevalence; a 2018 social survey, for example, revealed that, as a result of compressor diving, 15 people on Simeulue have been seriously affected by decompression sickness and a further seven were reported to have died within the last three years.

FOCAL SITES



- Pulau Pinang, Siemat dan Simanaha (PiSiSi) MPA
- Pulau Banyan MPA
- Pulau Weh MPA [legacy]

AREA OF IMPACT

414,789 hectares

IMPACT

Flagship fish recovery – Three times more reef fish in community managed zones

The project has played an important role in building awareness and appreciation for the LMMA approach at both a regional and national level in Indonesia. At the provincial level, FFI's technical support to the Aceh Marine and Fisheries Agency has led to an increase in the total marine area under protection through the adoption of a revised provincial level spatial plan - which includes measures for additional protected sites and has catalysed LMMA activity in eight districts. As of 2018, our local team has a vital role to play in transforming these newly declared sites from lines on maps into functioning protected spaces through involvement in a newly created MPA Taskforce; the taskforce was given fresh impetus in October 2018 when FFI and the Aceh Marine and Fisheries Agency publicly reaffirmed their partnership and shared commitment to better manage the province's marine biodiversity at the international Our Ocean Conference in Bali.

Following our internal review of this project in 2016, we have refocused and reinvigorated this work. In 2018, we expanded our engagement from

two to five LMMAs on Simeulue, conducting critical in-water surveys to assess the impacts of management activities (the first on the islands since 2012) and continuing to document and share learning around the effectiveness of community-led approaches across the province. Looking ahead into 2019, we anticipate better protection within existing LMMAs for keystone coral reef fish spawning aggregations (several of these aggregations have been identified by fishing communities, including for two Endangered grouper species), expansion of the participatory model on Simeulue to a total of ten fishing communities, as well as focussing on increasing benefits for fishers from biodiversity protection through the development of more participatory market options for their catch. FFI is now well positioned as a key partner to support the Government of Aceh to deliver on their vision for effective management across the Province, with a particular emphasis on the role and engagement of coastal communities in achieving conservation success.





Conserving Turtles On Nicaragua's Pacific Coast

SECURING MARINE SITES

POLICY & PRACTICE

STRENGTHENING PARTNERS

Nicaragua's coastal and marine ecosystems are recognised as some of the most important sea turtle habitats in the Americas. The Pacific Coast is home to globally important nesting beaches for Eastern Pacific hawksbill *Eretmochelys imbricata* and leatherback *Dermochelys coriacea* turtles (which are both listed as Critically Endangered on the IUCN Red List), as well as two of only nine mass nesting beaches known globally for olive ridley *Lepidochelys olivacea* turtles. These sea turtles face multiple threats including poaching of their eggs from nesting beaches, direct capture (for their meat and shells), accidental snaring in fishing nets, ingestion of marine debris and other pollutants, and damage to their coastal nesting habitats and foraging grounds. FFI has been working alongside partners to safeguard sea turtles in Nicaragua since 2002, through capacity building, strategic planning, public awareness campaigns, monitoring and scientific data collection.

Poaching of nests for local consumption of eggs is one of the most significant threats to turtles in this project. Local capacity to monitor, protect and patrol nesting sites has been developed at five key

locations. This has significantly reduced the threats posed to nesting turtles from poaching, and resulted in the effective protection of over 90% of all leatherbacks nesting in Nicaragua and 50% of the known nesting population of Eastern Pacific hawksbills.

Protection efforts continued during the 2017/18 nesting seasons and into the 2018/19 season, with beach patrols involving park rangers and Government staff preventing poaching of adults or eggs. During the 2017/18 season 100% (9) of all leatherback nests and more than 90% (287) of all Eastern Pacific hawksbill nests were protected from poaching, resulting in the release of 137 leatherback and 8,751 hawksbill hatchlings to sea, whereas 100% of all nests were poached prior to this project starting.

Over the last 12 months this work has been reinforced through ongoing training in protection and monitoring protocols, a significant portion of which is carried out by locally recruited community patrol teams, and through international exchange visits to strengthen regional coordination and share local best practices.

FOCAL SITES



- Asseradores beach
- Estero Padre Ramos Natural Reserve
- Salamina beach
- Río Escalante Chacocente Wildlife Refuge

AREA OF IMPACT

**62,338
hectares**

IMPACT

Turtle restoration – 155,475 hawksbill turtle hatchlings released over eight years

In parallel, we have continued to work with communities to develop economic alternatives to the harvesting of turtle eggs. During 2017 as part of efforts to strengthen the long-term sustainability of this work, and to generate revenue to underpin the ongoing costs of community patrols, a fully-costed business plan was developed for a volunteer tourism initiative at one of our primary nesting sites, which will be managed as an environmental and social enterprise. Over 250 visitors including both national and international volunteers were a part of this initiative and a small profit has been made and is being reinvested into ongoing conservation and the local community.

This year we have also started helping community patrollers to gain additional skills useful for developing off-season livelihood opportunities, such as birding tours.

More broadly the project has continued its national awareness campaign to reduce demand for turtle eggs, as well as communicating scientific findings and engaging with policy makers and relevant regional initiatives to advocate for the improved management and protection of these species.

This year has also seen ongoing efforts to improve turtle protection at sea, this has included work to understand the impacts of blast fishing and other fishing methods on turtles and to support people to adopt fishing gears and practices that minimise negative impacts on these species.

While it is still too early to be able to determine the impact of this work for turtle population recovery, we are seeing positive trends for olive ridley turtles. Unfortunately, however, the regional population of leatherbacks continues to decline. Our engagement in the Eastern Pacific Leatherback Conservation Network and the Eastern Pacific Hawksbill Initiative allows us to understand our turtle data from Nicaragua in the wider regional context, and to collaborate with other groups to strengthen protection for the species throughout the Eastern Pacific. Our work within Nicaragua's Coral Corridor (see pg. 25) reinforces our turtle conservation strategy and will help tackle the wider threats faced by turtles from fishing activity in their nearshore feeding and breeding grounds.

Following the widespread civil unrest that broke out across Nicaragua in April 2018 and the political instability that ensued, efforts to support the Nicaraguan authorities to protect and monitor the nesting beaches have suffered. Unfortunately, this has resulted in the withdrawal of army personnel from their duties of protecting the olive ridley mass nesting beach where we work, leading to increased poaching of olive ridleys during the mass nesting season. However, the remaining level of protection means that poaching is lower than that observed in neighbouring regions. Nonetheless, the volatility of the situation means that the sustainability of conservation activities at this site is not yet secure.





Mobilising partnerships for effective Marine Protected Area governance in the Caribbean

The Caribbean islands support intricate networks of coral reefs, seagrass beds and mangrove forests, and contain regionally significant biodiversity. Despite a strong political interest to create Marine Protected Areas (MPAs), the financial support needed to set up effective institutional frameworks (e.g. management and regulatory bodies) for MPA management and to ensure they have adequate budgets is often weak. Development funding in 2010 helped to identify the added value that FFI might bring to existing efforts in the region in issues such as MPA governance, capacity building and sustainable financing. It also enabled the development of an options paper for advancing MPAs in Antigua and Barbuda.

Drawing on our network of contacts, FFI explored opportunities to mobilise the necessary large-scale finance to support local partners in the Lesser Antilles to increase the area of marine habitat under active and effective protection. It has become increasingly clear that the scale of the current conservation response is insufficient to meet the array of threats facing Caribbean marine ecosystems, at least in regards to effective MPAs. There are many organisations working on this challenge in this region. However, few national organisations are enthusiastic about pursuing the radical reforms in governance and management that are required. For example, our engagement in Anguilla, Montserrat and Saint Lucia has generated

interest, but has not resulted in a clear path to the level of Government commitment needed to bring about real change.

We have continued to communicate with partners in the region in 2018 to identify emerging opportunities. This includes exploring the potential for the establishment of a new large MPA around the island of Redonda in Antigua, and seeking funds from other sources to fill knowledge gaps relating to the status and threats to important habitats and species around the island to inform any future protection. In 2018, we began an exciting project to turn two existing Marine Parks in Anguilla – around the Parks of remote Prickly Pear and Sombrero islands – into functional, effective MPAs, with a likely initial focus on controlling populations of invasive lionfish and the establishment of mooring buoys to reduce anchor damage.

Having worked with our partners across the Caribbean to recover from the devastating impacts of Hurricane Irma in 2017 (through sharing equipment and helping to prioritise local assistance for environmental organisations), we continue to help to ensure critical natural ecosystems are conserved, protected and restored, to mitigate storm surges, flooding and the impacts of future hurricanes.



FOCAL SITES

- Anguilla
- Antigua
- Barbados
- Barbuda
- Montserrat
- Saint Lucia



Marine conservation on Georgia's Black Sea coast

SECURING MARINE SITES

POLICY & PRACTICE

STRENGTHENING PARTNERS

The Black Sea is threatened by over-fishing, pollution and hydro-power dam development, and its marine fauna (which includes six Endangered and Critically Endangered sturgeon species and three cetacean species) is under grave pressure. FFI has been working in Georgia since 2004, primarily focusing on terrestrial issues. However, in 2015 a scoping visit was undertaken to assess the need for marine conservation in the country, and opportunities requiring FFI support. While various needs were identified (including appetite to improve marine management on the Georgian Black Sea coast and potentially to establish new Marine Protected Areas), we have decided to focus

our energies initially on the opportunities to inform and influence the conservation and trade of the common sturgeon (a Critically Endangered species that moves between freshwater and marine habitats). In 2018, we conclusively proved that several sturgeon species spawn in the focal river in our project site and this has catalysed further discussion about how to better protect these species, across both the freshwater and marine stages of their lifecycles. While this has not yet led to any specific focus on improved marine protection, our team continue to be well-placed to respond to any such proposals and we hope to have a clearer picture of this opportunity in 2019.



FOCAL SITES

- Georgia

LEGACY PROJECT OUTLINES

The following site-based projects are considered “Legacy” projects in which FFI maintains an active interest, but does not currently play an operational role.

Galera San Francisco Marine Reserve, Ecuador

SECURING MARINE SITES

Galera San Francisco is an area of international biodiversity importance off the coast of Ecuador. This site boasts a species inventory larger than the Galapagos Marine Reserve and is understandably listed as a priority national site for conservation. Species present include snapper, dorado, goliath grouper, manta ray, whale shark and seahorse, and the area is a feeding ground for turtles and cetaceans. However, with limited capacity for management, the Reserve and its biodiversity are threatened by illegal, destructive fishing, clearance of mangroves and other coastal habitats, and pollution.

In 2010, FFI began to build strong partnerships with local NGOs and communities around the Reserve, to use these as a platform to develop an improved management plan for the site, and to build public and political support for the plan’s implementation. Following significant delays, the management plan for the Reserve was approved in 2014, including pioneering provisions (the first of their kind in mainland Ecuador), for the establishment of strictly protected areas (No-Take Zones), and preferential access rights for artisanal fishers (which paved the way for fishing resources to be locally managed for the first time). Efforts have since focused on demonstrating how the long-term implementation of the Reserve can be improved through the effective engagement of invested local communities, including enhanced participation in the agreed management and governance structures.

In 2016, FFI and its partners supported community engagement with, and understanding of, the new

POLICY & PRACTICE

STRENGTHENING PARTNERS

management plan, and the development of a new participatory management committee (which includes representatives from ten local organisations and six government bodies). Although fishing control measures within the Reserve remain inadequate, there are indications of greater acceptance of the need to regulate fishing among local communities, with the issues of responsible fishing practices, control, access and resource management being discussed by the management committee. In addition, 2016 saw improved responses to illegal activity (including incidences of piracy) within the Reserve, as a result of better information exchange between the maritime authorities, environment agencies, and communities. As of 2017, a dedicated team of community Marine Reserve rangers is now in place and, whereas previous co-ordinated enforcement was limited to expelling vessels not authorised to fish in the site, this team has been able to focus on more targeted initiatives, such as the seizure of illegal fishing gear being used with the site.

Baseline ecological information on the Reserve continues to be compiled by partners through a programme of biodiversity and fisheries monitoring, involving community participation in data collection, to help inform sustainable management of key fisheries within the Reserve (notably octopus and sea cucumber fisheries).

We are not currently investing in this work, but continue to maintain connection with local partners with a view to exploring how lessons from this site, particularly related to participatory community-led enforcement can inform marine management efforts more widely in the region.



FOCAL SITES

- Galera San Francisco Marine Reserve, Ecuador

AREA OF IMPACT

54,600 hectares



Turneffe Atoll, Belize: Conserving the Mesoamerican Barrier Reef

SECURING MARINE SITES

POLICY & PRACTICE

STRENGTHENING PARTNERS

Turneffe Atoll is the largest and most biologically diverse coral atoll in the Western Hemisphere, encompassing deep-ocean, fringing reefs, sea grasses, mangroves, littoral forest and lagoon ecosystems. Until 2012, Turneffe Atoll was the largest unprotected section of the Mesoamerican Barrier Reef, facing threats from unregulated development, mangrove conversion, and over-exploitation of fishery resources.

FFI worked alongside the Blue Marine Foundation, the Belizean Government and the NGO and donor community to catalyse the establishment of a new Multiple Use Marine Reserve on Turneffe Atoll, and to leverage support for its long-term management and enforcement. The area was formally designated in November 2012 by the Government

of Belize, and a local NGO was appointed as co-manager of the Reserve. FFI provided further technical and capacity building support to local partners during 2013-14, and supported the Ministry of Fisheries, Forestry and Sustainable Development with capacity building and advice on media relations to help the communication of protected area policies, including those related to Turneffe.

Following a review of the project with partners at the end of 2014, in light of the capacity built within the local management NGO, and direct funding availability, it was agreed that there was no longer a need for FFI to directly support work in the Reserve and as such we no longer have any direct engagement at this site.



FOCAL SITES

- Turneffe Atoll

AREA OF IMPACT

131,690
hectares



Community management of mangrove ecosystems in Lake Piso, Liberia

SECURING MARINE SITES

POLICY & PRACTICE

STRENGTHENING PARTNERS

Liberia's mangroves have been extensively degraded, which in turn has affected the productivity of coastal fisheries and undermined coastal water quality and shoreline stability. The Lake Piso Multiple Use Reserve in Liberia hosts important mangrove ecosystems that directly adjoin Liberia's coastal waters. FFI and local partners worked together at this site to improve understanding of the role that mangroves play for local ecosystems and economies, identified threats that drive their degradation, and worked to improve the capacity of Liberian civil society to engage in conservation and management activities for mangroves.

The project included participatory mapping of mangroves within the Reserve as well as an assessment of the threats driving mangrove degradation. Consultations and engagement across 34 communities improved the project's understanding of the importance of mangroves for local livelihoods, and increased communities' participation in management activities, particularly among youth groups. A management plan to guide the use and conservation of mangroves within the

Reserve was put in place (a first in Liberia), and the implementation of the plan and the management of infractions is now led by local communities, offering scope for long-term sustainable use.

There is anecdotal evidence to suggest a decline in the harvesting of mangrove wood, and a shift away from wood as the preferred building material for houses and for use in traditional fish smoking. Increases were also previously reported in the height of the mangrove canopy and area coverage, as well as the presence of associated animals such as crabs, mudskippers and migratory birds. A self-imposed moratorium on the destruction of mangroves remains in place across 14 communities within the Lake Piso Multiple Use Reserve (ordained by local community authorities), which is attributed to a greater awareness of the role of mangroves in underpinning coastal fisheries, and perceived increases in fish production as a result of reduced mangrove degradation.



FOCAL SITES

- Lake Piso, Liberia

AREA OF IMPACT

6,361 hectares

Improving policy and practice





Credit: Kate Hogg

OUR APPROACH

Whilst Marine Protected Areas (MPAs) are vital as refuges for biodiversity, they will not, on their own, achieve sustainable ocean management. Currently an estimated 7% of our seas and oceans fall within the boundaries of proposed or designated MPAs (with varying levels of protection and management effectiveness), yet the threats are global and damage occurring outside these protected areas affects the marine biome as a whole. There is therefore a need for approaches that address the connected nature of ecosystems and the cumulative impacts of human uses. The trend on land is towards broader partnerships between governments, businesses and interest groups, and towards significant policy shifts that can drive real change in the enabling environment for conservation and incentivise protection and sustainable use.

We have already begun to influence national fisheries policies and management in some of our countries of operation, based on existing governmental relationships and the experiences we bring from site-level operations. Building on our success in incentivising and influencing local reforms that reduce damaging fishing practices or overfishing, we have expanded these engagements, with a particular focus on reducing damaging fishing practices (such as bottom trawling for shrimp) and strengthening regulatory mechanisms to tackle illegal fishing in domestic waters. In particular, we see the provision of well targeted and highly credible information as a key role for FFI in the policy arena. We have also supported local NGOs to lobby for improved

policies, and have collaborated with local and international partners with expertise in policy issues, lending our voice to issues of strategic relevance to our overall marine aspirations.

Many business sectors have serious impacts on the coastal and marine areas where FFI is working to conserve biodiversity. In view of the growing evidence that sustainability makes good sense for both businesses and the environment, we have identified leverage points to influence corporate marine responsibility in three sectors: fishing, oil and gas, and plastics. In particular, over the past seven years, we have become a leading player in the campaign to reduce microplastic pollution (in the UK and beyond), with a reputation for providing well-researched and credible data and non-confrontational, constructive engagement with industry. We have achieved significant traction on our focal microplastic issues – microbeads, plastic pellets and microfibres - to date, which has offered a platform to expand our focus to other aspects of the marine plastics pollution problem in line with the momentum around tackling this threat (see pg.46). We have significantly strengthened our relationships with UK policy makers this year around the plastics issue, and have also provided support to various government agencies on wider marine issues, for example informing the development of the UK's strategy on international ocean issues and participating in the Bright Blue think tank on ocean conservation.

ACTIVE PROJECT OUTLINES

Reducing the extent and impact of destructive shrimp trawling practices

SECURING MARINE SITES

POLICY & PRACTICE

STRENGTHENING PARTNERS

Bottom trawling for shrimp and prawn is a critical issue within the wider problem of unsustainable industrial fishing, due to high levels of by-catch, physical impact on habitats, and conflicts between the industry and artisanal fishers. These impacts are widespread, and are recognised and reported by all regional teams within FFI.

In light of the impacts, a number of countries have implemented or are considering a partial or total ban on bottom trawling. These measures have been applied with varying levels of success, depending on the national context. In 2011 FFI compiled lessons learnt and recommendations from these global experiences as part of efforts to inform countries and help them avoid, and plan for, common pitfalls. Building on this work, FFI has been working to support local governments, NGOs and community partners in Costa Rica (and previously Ecuador) to implement restrictions or bans on shrimp trawling activities, while also ensuring there are effective monitoring protocols established to document the benefits of these measures for local biodiversity and ecosystem recovery.

A trial no-trawling zone in the coastal fishing ground of Tarcoles was established by this project in Costa Rica in 2011, and extended indefinitely by the Government in 2013, as a direct result of efforts by our local partner to measure and communicate the recovery of biodiversity in this area following the cessation of trawling activity. Work with artisanal fishers to trial limited shrimp catching using sustainable methods (nets) has helped to establish the initiative as a visible flagship for the argument that prohibitions on bottom trawling can both foster sustainable development, as well as restoring marine ecosystems (only one trawler has accessed the Tarcoles closed zone in six years and was swiftly alerted of the closure and forced to leave).

This work put FFI and partners in a position to facilitate cross-sectoral discussions around a wider ban on bottom trawling and to support policy and regulatory reforms at a national level, which was advanced through a separate initiative (see pg.43).

In Ecuador, national policy changes have paved the way for the elimination of bottom trawling for shrimp, with the exception of one localised fishery.

This project has provided critical support to government partners to understand and document the socio-economic and biodiversity impacts associated with the implementation of the ban. It has resulted in closer collaboration between fisheries and MPA authorities, the participation of government representatives in monitoring, and the sharing of experiences between Costa Rica and Ecuador.

Data gathered previously from two MPA sites in Ecuador where the ban is in place indicated higher abundances of two commercially important species that have been studied (starry grouper *Epinephelus labriformis* and yellow snapper *Lutjanus argentiventris*), following the cessation of bottom trawling in 2012, pointing to initial ecosystem recovery. Anecdotal evidence gathered in 2015 from artisanal shrimp fishers in both countries indicated improved shrimp catches, and initial results from a socio-economic survey produced in 2016 suggested few perceived negative impacts of the Ecuador ban; however, there is a risk of artisanal fishers capitalising on the prohibition of large-scale trawlers and starting to use trawling methods from small boats, an issue which would require further regulation. Although we have not invested directly in this work this year, we continue to monitor this situation through our ongoing relationships with local partners, with a view to informing further debate on management improvements for this fishery as required (see pg. 43).

FOCAL SITES

- Tarcoles, Costa Rica
- Machalilia National Park, Ecuador
- Reserva de Producción Faunística Marino Costero Puntilla Santa Elena, Ecuador



AREA OF IMPACT

154,610
hectares



Towards new national policy on illegal and damaging fishing in Costa Rica

POLICY & PRACTICE

STRENGTHENING PARTNERS

In spite of its demonstrable leadership on terrestrial conservation, Costa Rica has only recently begun to focus on protecting its globally significant marine biodiversity. Bottom trawling for shrimp is the most damaging fishing technique used in the country, posing a critical threat to biodiversity through physical damage to seabed habitats, and to species (particularly turtles, rays, sharks, lobsters) caught as incidental/discarded by-catch. In a landmark decision in 2014, the Constitutional Court in Costa Rica ruled that bottom trawling was considered to be 'unconstitutional', and prohibited the issuing of any new fishing licenses unless and until trawlers could change their methods to avoid impacts to habitats and species. This prompted wider discussions to identify how the fishing industry might be better organised and managed to avoid impacts, with a view to generating a new national policy.

The foundations laid by the initial project in Costa Rica (see pg. 42) put FFI and local partners in a strong position to facilitate and inform the reform process, and led the Government to request our support to ensure that future decisions about the regulation of destructive shrimp trawling practices could be informed by strong ecological,

social and economic evidence, and based on effective consultation.

In 2015 our project partner CoopeSoliDar RL facilitated a government-led process, aimed at producing a new regulatory framework for sustainable shrimp fisheries. Hundreds of stakeholders representing fishing, tourism, conservation and academic sectors met regularly to discuss and propose elements of the policy and its guiding principles. A new *National Policy for Sustainable Use of Shrimp, Generation of Employment and Fight against Poverty* was adopted in May 2017, which through the zoning of fishing activities, places much of Costa Rica's inshore waters (between 3-5 miles) under protection from shrimp trawling. In addition, this legislative reform requires all semi industrial shrimp-trawling vessels to be fitted with Vessel Monitoring Systems (VMS) to aid the effective monitoring of commercial fishing vessel activity. Although sectoral divisions still dominate marine conservation discussions in Costa Rica, this process was clearly informed by a greater availability of ecological and socio-economic data than it would have been without FFI's intervention and has given a voice in this debate to previously marginalised small-scale fishers.



FOCAL SITES

- Costa Rica inshore waters

In parallel, the project helped partners to undertake studies to address knowledge gaps, generating critical information on the socio-economic impacts of the bottom trawling industry. This included gathering locally relevant evidence from community managed areas to assess the impacts of fisheries management measures, which were provided as an input to the policy process and used in strategic communications with legislators and the media, arguably leading to greater awareness of the issues among the Government, legislators and the general public. Through this project FFI has provided advice, raised questions and commented on draft documents, thereby helping to shape the reform of national policy while respecting the national leadership.

The implementation and roll out of this landmark legislation has suffered some setbacks this year, in part due to insufficient support being provided to those fishers most affected by the ban to transition to the new regulations without significant impacts on their livelihoods, which has fuelled opposition to the measures. The incoming President Carlos Alvarado seems determined to find common ground on this issue between competing fishing sectors, conservationists and government bodies, and FFI will continue to engage with partners in this process as appropriate in 2019 to encourage the best possible outcome.

We continue to foster a strong relationship with the fisheries authority, who are keen to receive our ongoing inputs to other aspects of national fisheries policy and management. Most recently, we provided support to resolve issues around artisanal fisher licensing, creating a clear process

and roadmap by which these fishers can obtain a license. The “illegal” status of many these low-impact coastal fishers is a major barrier to building successful community-led marine protection initiatives - it is estimated that Costa Rica has around 15,000 artisanal fishermen, of which only 10% have licenses.

As a linked initiative that has grown from this process, we are continuing to work with the national fisheries agency, and the progressive fisheries cooperative (CoopeTárcoles) at the Tárcoles Marine Area for Responsible Fishing (which was closed to trawling in 2013), to implement and make full use of an innovative electronic monitoring and traceability system. This system was initiated as a trial to generate information on the local effects of the cessation of bottom trawling, and to channel these findings into national decisions and policies. To date this has been well received by the authorities and local community, in light of the potential of this system to generate useful information for the fishers which will allow them to better monitor their catches, improve the marketing of their fisheries products (and thus business potential), and track trends in their marine resources to enable more responsive management. We will continue to support the testing and adaptation of this system to respond to the specific local needs in 2019, and will seek to capture the learning from this pilot to help determine the potential and relevance of this tool for replication at other sites and within specific national fishing fleets. In particular, the system may form a crucial part of overcoming the need for greater documentation of fishing activity as a barrier to artisanal fishers obtaining a licence and therefore participating in marine management.



Supporting Scotland's first Demonstration and Research MPA, Fair Isle

SECURING MARINE SITES

POLICY & PRACTICE

STRENGTHENING PARTNERS

Scotland has the longest coastline in the UK, and this harbours some remarkable cold-water biodiversity, as well as being home to globally significant populations of seabirds. Scotland's waters have been significantly affected by the use of bottom trawling and dredging in vulnerable inshore habitats, damaging the very habitats that are vital as nurseries for juvenile fish, and which also harbour species of European importance.

The mobile fishing sector has traditionally been very politically strong in Scotland, with few other voices providing the Government with an alternative message. Our support to Sustainable Inshore Fisheries Trust (SIFT), Community of Arran Seabed Trust (COAST) (see pg.58) and emerging community groups (see pg.60) is part of a wider programme of work attempting to rebalance the messages that the Government receives about the values placed on inshore waters, and thus the range of management options that should be considered.

However, political change over the last eight years has led to a policy opportunity with the Scottish Government, with community empowerment being prioritised as part of its platform for reform. This is coupled with a growing recognition of the shortfalls in current fisheries management practice, after years of lobbying by a range of different environmental organisations. Over the last eight years, Scotland has been through a process to define and plan a network of Marine Protected Areas (MPAs) in Scottish waters in line with EU obligations, including sites proposed by third parties such as NGOs and community groups.

Scottish legislation includes a provision – which had not been tested until recently - for third parties to propose sites that do not necessarily meet the strict requirements of the national network as Demonstration and Research MPAs, where progressive marine management approaches can be tested. Through our ongoing programme of work in Scotland (see pg. 60), FFI has worked with the Fair Isle Marine Environment and Tourism Initiative (FIMETI), a community group who have

been campaigning for an MPA for their waters for over 20 years. FFI helped FIMETI develop and advance their proposal to meet the criteria of a Demonstration and Research MPA, and led the process to develop consensus support for the proposal from other stakeholders (including Government and fishers). The proposal aims to improve marine management practices within a 14,500 hectare area around the island to safeguard the seabird populations that are critical to the island's tourism-based economy. The Fair Isle MPA finally came into force in November 2016, following an announcement in October in which the Scottish Environment Minister formally recognised FFI's role in the MPA's development. This Demonstration and Research MPA is the first of its kind in Scotland, and the first site to devolve MPA management responsibilities to a non-fishing community group, through a formal co-management agreement.

The designation of this site should facilitate more holistic and locally-responsive management of Fair Isle's inshore waters including, for example, the legal basis for implementing a Fair Isle shellfish management plan. We have continued to closely support the Fair Isle community this year following the MPA designation. In particular, we have been working with FIMETI to support their organisational development of FIMETI, to help this informal organisation transition to a registered charity - the Fair Isle Marine Research Organisation (FIMRO) – and in response to key capacity needs we are supporting FIMRO to employ a dedicated MPA Implementation Officer for a year, to drive forward the active management of the MPA and to lead further fundraising to sustain the longer term implementation of the site.

Fair Isle is providing a ground-breaking model for community-led and managed MPAs in Scotland, which can be used for replication at other sites. It is also strengthening the recognised role and contribution of FFI in supporting wider processes of marine conservation planning and fisheries reform in Scotland.

FOCAL SITES

- Fair Isle, Scotland



AREA OF IMPACT

14,500 hectares



Improving policy and practice to reduce plastic pollution

POLICY & PRACTICE

STRENGTHENING PARTNERS

The threats posed to marine ecosystems from plastic pollution and developed a strategy to address the issue of microplastic particles directly entering the oceans.

Following the recruitment of a dedicated staff member, a clear action plan was developed setting out how FFI could bring about change on this issue and specifically reduce the volume of microplastics from avoidable (industry-linked) sources finding its way into the sea.

From these beginnings, FFI has established a leading role as the first biodiversity-focused organisation in the UK to identify the risk to marine life and the food chain from microplastic pollution. Research has since proved that microplastics concentrate persistent organic pollutants on their surfaces, and can be directly ingested by marine life, including by organisms at the base of the food chain (including plankton and other filter feeders).

Early outputs from this work included the development and launch of the Good Scrub Guide¹⁰ and collaboration on the Beat the Microbead campaign¹¹ to focus attention on the issue of unnecessary use of plastic microbeads in cosmetics and personal care products. These plastic beads are designed to be washed down the drain but many pass directly through sewage treatment works into the marine environment. In

addition, FFI worked to engage with the plastic production industry to improve uptake of good practice guidelines for handling raw plastic pellets, a frequently reported pollutant that reaches the sea through poor industry practice.

FFI's strategy on microbeads initially focused on eliciting voluntary commitments from cosmetic brands to eliminate microbeads from their products. Over a three-year period, the issue grew in prominence, culminating in a high-profile advocacy campaign led by a coalition of four NGOs (FFI, Greenpeace UK, Marine Conservation Society and Environmental Investigation Agency) for a UK-wide microbead ban, based on FFI's credible and well-researched evidence. Following an enquiry by Parliament's Environmental Audit Committee (at which FFI presented oral evidence) and intense media pressure, the UK Government announced a ban on microbeads in cosmetics and personal care products in September 2016, which came into force in January 2018. This world-leading ban covers all plastic ingredients and avoids potential loopholes seen in legislation elsewhere.

This is a major victory which, over time, will have a significant impact on plastic pollution in UK waters, and could provide a legislative framework that may help other governments take similar measures. FFI undoubtedly played a crucial part in this, with the report from the Audit Committee specifically recommending that any ban on microbeads “should follow the principles set out by Fauna & Flora International around universality and consistency”¹². The project team has since been monitoring the implementation of the ban, identifying potential issues of non-compliance, examining problem products, and sharing this information with appropriate government agencies. We are also engaging with the Hazardous Substances Advisory Committee about potential sources of microplastic ingredient pollution not covered in the current ban (mainly applying to “leave-on” cosmetics and household cleaning products), and have been exploring the need for EU-wide microbeads legislation. We have continued to work with international brands on their voluntary commitments on microbead use outside the UK, to start to reduce this damaging pollution in other areas of the world.

Our work to prevent the loss of raw plastic pellets to the ocean has also developed significantly, with widespread support raised for a supply chain approach to tackling pellet loss as an immediate industry-led solution and a solid basis for regulation. This approach ensures transparency and compliance by requiring all companies throughout the plastic ‘supply chain’ commit to following specific guidelines that prevent pellet loss, and to report and be audited on how successfully they are implementing these guidelines. FFI convened a new coalition of NGOs working on this issue across Europe to increase collaboration and achieve greater traction and impact. Work with industry leaders and trade associations (including the British Plastics Federation and Plastics Europe) led to 58 UK-based plastic producers and users and 29 multi-national companies signing up to best management practices to reduce plastic pellet pollution in 2017. For example, Plastics Europe has shown initiative in their engagement with new companies (including one of the first haulage firms to sign up to the best management practices).

Over the last year FFI has had positive engagements on pellet management with around 20 companies, and with government agencies/politicians. For example, we have been given the opportunity to test the supply chain approach with a major UK retailer, and are exploring larger scale trials of this approach with the Scottish Government and OSPAR (the Convention for the north-east Atlantic marine

environment). The team also helped to influence the inclusion of text on pellet loss and the importance of taking a supply chain approach to tackle this, in key policy documents such as the EU Plastic Strategy, the G7’s Plastic Charter, and the global packaging standard ‘British Retail Consortium Global Standard’, which is used by more than 4,000 companies worldwide. This is a significant step towards mainstreaming pellet management as normal operating practice across supply chains. We have also formed a successful partnership providing technical support to the Danish NGO ‘Plastic Change’, who have located pellet loss hotspots along their coastlines, identified compulsory environmental audits within Danish legislation that may prevent pellet loss to the environment, and plan to launch a national pellet loss campaign.

There is growing recognition that plastic fibres (like acrylic and nylon from synthetic textiles and fishing gear) are the most significant contributor of microplastic pollution in the ocean. This year we have launched new work on these fibres, having established positive relationships with a range of textile retailers, NGOs and scientists working on this issue and produced a summary document on potential solutions. Our aim is to garner cross-industry collaboration and, following discussions with the Scottish government, we are exploring opportunities for them to host a cross-industry, solutions-focused workshop in spring 2019.

This year we have significantly widened the scope of our marine plastics work, looking at how we can share the experience we have gained in driving changes in policy and practice for microplastics to catalyse similar changes in other countries around the world, while also expanding our focus beyond microplastics to help partners address the challenges posed by all types of non-essential plastic that enter and pollute the marine environment. FFI’s call for ‘sensible’ plastic use has been well received by industry and decision makers alike. This year we have achieved a much more significant level of engagement with the UK government, particularly Defra, including an invitation to meet the Treasury Minister to discuss the opportunities of taxes and levies on plastic production and use to address the pollution issue. FFI is now positioned as a lead NGO partner in the Commonwealth Clean Oceans Alliance – which was launched in London in April 2018 – which seeks to unite the 53 countries of the Commonwealth in ambitious action to tackle plastic pollution in the world’s ocean.



Developing a portfolio of regional marine plastic pollution projects

SECURING MARINE SITES

FFI's work on marine plastics has grown rapidly in recent years and we now have a well-established reputation for constructive and solutions-focused engagement on marine plastic pollution issues, are recognised for our excellent in-house technical expertise and are engaged in a range of international bodies and processes relating specifically to marine plastics.

In 2018, we fulfilled a long-term strategic ambition to embed our marine plastics work within our regional marine programmes and have begun the development of a suite of projects aimed at solving the root causes of plastic pollution, principally grounded in the countries or sites where we are already actively implementing marine work. Where relevant, these projects will respond to a clear biodiversity need for reduced plastic pollution, develop locally appropriate solutions and/or link work on the ground back to national policy and international movements on plastics.

The most advanced opportunities to implement this approach have come in Cambodia, Kenya and Honduras, with constructive conversations ongoing in Indonesia, Myanmar, Tanzania and Belize. In Southeast Asia, our emerging work on plastics is focused around highly biodiverse coastal/island sites (Koh Sdach in Cambodia and potentially

POLICY & PRACTICE

Rambut Island in Indonesia) where plastics are known to pose a direct biodiversity risk to, for example, coral reef health, turtles and wetland birds. In these site-based approaches, we are focussing on the most prevalent items of plastic litter (identified through systematic beach monitoring) and addressing how the loss to the environment of these specific items can be minimised (for example, through exploring the use of drinking water filters instead of single-use plastic bottles in Cambodia). In contrast, developing work in Central America and Africa has focused on policy change, driving a National Marine Litter Action Plan in Kenya and helping a coastal municipality become a "single-use plastic pollution free" city in Honduras.

Looking ahead to 2019, we hope to scale-up our activities in these locations to engage with community, civil society, development, government and industry partners as a basis for step-wise, informed and practical action that will bring about the systems changes needed to stop the accidental flow of plastics into our ocean. Given the appetite from our partners for FFI support and engagement on this issue, we also expect to continue to scope opportunities in other geographies with a view to developing a demonstrable portfolio of projects that are tackling marine plastic pollution.



Marine Stewardship Initiative

POLICY & PRACTICE

To meet the world's increasing demand for energy and resources, offshore and deep-sea fossil fuel extraction is growing, posing serious threat to marine wildlife and ecosystem health. FFI's Business and Biodiversity team has developed new approaches and methodologies to assess risk and apply global best practice principles of avoidance, minimisation, mitigation, and offsetting of potential impacts within marine environments. Through engagements with corporate design, engineering, and construction teams, there has been the opportunity to integrate marine biodiversity considerations into their operations, ensuring a more sustainable approach to working in sensitive marine habitats. These approaches have been applied to operations in offshore coral reef and deep water habitats in northern Mozambique; Bentuni Bay; Indonesia; Gabon; and Congo Brazzaville.

In response to a recognised gap by the industry, finance sector and conservation organisations alike, FFI has developed specific guidance and recommendations for oil and gas companies on how to identify and mitigate the impacts of their operations on marine biodiversity and ecosystem services. This guidance has been developed in

close collaboration with partners and was reviewed by a number of leading oil and gas companies to ensure its relevance, and to build appetite for its use.

The Good Practice Guidance for Oil and Gas Operations in Marine Environments was launched in September 2016 at a workshop at the World Conservation Congress and generated considerable interest from the industry, conservation, and finance sectors. In 2017 it was published, launched on FFI's website, and shared widely with relevant groups, including the International Petroleum Industry Environmental Conservation Association's members. In 2018, it was presented at the international Association for Impact Assessment in South Africa, and as one of the only marine biodiversity focused sessions at the event, it was acknowledged that more attention needs to be given to marine biodiversity within the impact assessment forum.

The guidelines have the potential to influence both corporate policy and operational practice relating to marine biodiversity and ecosystem services, in time reducing the threats posed to marine habitats and species globally from this sector.

The Good Practice Guidance has been fundamental in enabling FFIs engagement in a marine mining risk assessment project that seeks to highlight the risks posed to marine biodiversity and ecosystem services from mining operations in coastal and deep water areas, ahead of the anticipated development of a new industry for deep water mining. The guidance will also form the basis of two projects (expected to be operationalised in the near future) that will involve adapting the guidance to be relevant within African contexts. One project aims to adapt the guidance based on available information on megafauna and habitat features in Senegal, Mauritania, Guinea-Bissau and Sierra Leone, creating a useful tool for future industry engagements in West Africa; whereas the other aims to adapt the guidance based on Mozambique's priority biodiversity and sustainable development goals, so that it is relevant to the Northern Mozambique Channel context and can be used to ensure adoption of environmental and social best practices by the oil and gas sector in this area. The development of these projects suggests that there is growing interest in the tool in various regions, therefore we expect its future influence to be widespread.

As part of our ongoing wider engagement with the oil and gas sector, FFI helped to characterise

critical habitats for sea turtles in Ghana, and the threats posed by planned oil and gas exploration and development activities. This led the company to support the production of a new national Biodiversity Action Plan to protect sea turtles in Ghana in collaboration with local stakeholders and as a result, take a number of steps to ensure that the timing and nature of their construction is sympathetic to turtles¹³. Engagement with another company, operating in Cape Verde, resulted in the company going beyond international best practices on two occasions to close down their seismic testing activities to allow for the passing of cetaceans (sighted beyond 500m away).

Engagement with international financial institutions (which fund a large proportion of oil and gas operations globally) has been ongoing since 2016, with the aim of encouraging them to use the guidelines to guide capital investments into more responsible marine oil and gas projects. For example, FFI brought about a change in lender standards in relation to turtles, so that all companies that are looking for investment in projects that overlap with turtle ranges anywhere in the world will need to consider how they mitigate the impact of their work on these species.



LEGACY PROJECT OUTLINES

The following policy/practice projects are considered “Legacy” projects in which FFI maintains an active interest, but does not currently play an operational role.

Credit: Rakmat Digantara



Impact investing for marine conservation in Aceh, Indonesia

SECURING MARINE SITES

POLICY & PRACTICE

Global marine conservation and management efforts are critically limited by uncertain or inconsistent funding prospects, and there is a need to improve the diversity and longevity of funding sources underpinning conservation initiatives. FFI is exploring opportunities to catalyse increased investment in conservation by the private sector by developing and testing innovative financing mechanisms, in particular through impact investment - a form of socially responsible investment made into a company or organisation with the intention of generating measurable social or environmental benefits alongside a financial return.

In 2014, FFI started a new pilot project to test the potential of an impact investment approach to incentivise more sustainable practices in fishery-based businesses in Simeulue Island, Aceh, by driving capital into businesses that take steps to minimise their impacts on biodiversity. This work was intended to build on and reinforce FFI’s work with partners on Marine Protected Areas (MPAs) and Locally Managed Marine Areas (LMMAs) in the area (see pg.31).



FOCAL SITES

- Aceh, Indonesia



The experimental project developed a good understanding of the fisheries sector and markets in Simeulue, and how impact investment could reduce the impacts of LMMAs on local businesses. However, a detailed assessment of 74 local business operations revealed that none had the accounting or governance capacity (termed 'readiness') that would allow them to manage an impact investment loan to the required standard, and significant further investment would be needed to develop this capacity before impact investment could become a viable tool in this location.

The project provided initial capacity to improve the fisheries sector in Simeulue, including targeted awareness-raising on sustainable fishing practices and training in business skills such as financial reporting and cash flow management, and has stimulated greater coordination at the local level (e.g. engagement between businesses, local government and fisheries cooperatives). However, the decision was made not to proceed

further given the real constraints to mobilising impact investment funding where baseline capacity is so low.

No further investment has been made into this work in 2018, but we are using the lessons learned from this project to inform our wider programme of work in Aceh (see pg.31) and our work around conservation finance and enterprise. In 2017, the learning from the pilot project was used to make the first attempt to document the economic importance of sustainably harvested octopus, fish and sea cucumber on Simeulue and we anticipate that this information will be important for informing how small-scale community fishing organisations can gain access to fairer markets for their catch; a priority issue of concern as recently articulated by the Government of Aceh in their vision for effective marine management across the Province.



Credit: Jeremy Holden/FFI

Sustainability rating for the fisheries sector

POLICY & PRACTICE

Despite the significant threat posed to marine ecosystems by over-fishing, efforts to achieve change within the fisheries industry have had limited success to date. In 2012, FFI and partners - the North Sea Foundation, Synnervate, and Gaia Values – launched an innovative pilot project to harness the power of the financial sector as a means to improve the sustainability of operations of the fishing industry at scale. Through this project, the team developed and launched the Sustainable Seafood Finance (SSF) tool, providing financiers with the information they need to evaluate sustainability performance and catalyse improvements in the fishing companies in which they invest.

Using market research into the 50 largest seafood companies and their financiers, FFI engaged with financial institutions in 2015 and 2016 (particularly in Asia, and notably in 2016 with UBS Hong Kong and Aviva Investors), to improve their understanding of how the seafood sector operates and the risks they are exposed to by financing unsustainable seafood production. FFI has also discussed the SSF tool with the UN Principles for Responsible Investment unit and has continued to raise awareness of the risks associated with unsustainable seafood investment through a webinar, presentation of SSF at an Aviva Investors

event, and publication of an article in responsible investment platform *ESG Magazine*.

The first stage of the SSF tool (focused on improving transparency) was piloted in 2017, and while the tool was deemed useful for financial institutions to assess their risk exposure within their seafood portfolio, it did not generate appetite to pilot the second stage of the toolkit (focused on performance improvement). Demand is likely to remain restricted at present, as a result of the limited material risk posed by unsustainable fisheries to most financial institutions due to the small size of their seafood portfolios. It does however seem as though leading investment institutions, such as Rabobank and Aviva Investors, are increasingly recognising the need to understand emerging risks, and several other finance and seafood focused initiatives have emerged, such as Fish Tracker and Index Initiative, meaning the issue may gain more traction with the investment community. FFI remains committed to the concept of the SSF and to raising awareness amongst financial institutions on the risks of unsustainable fishing, therefore we will continue to track these discussions and feed our experiences into relevant fora, promoting the tool as a way to reduce investor risk and use private sector finance to leverage change.



Documenting the impacts of No-Take Zones on Fisheries, Firth of Clyde, UK

SECURING MARINE SITES

POLICY & PRACTICE

STRENGTHENING PARTNERS

Extractive fisheries have caused significant declines in native marine biodiversity and habitats in Scotland, resulting in the collapse of key white fish fisheries (which are no longer commercially viable), and a reliance on species much lower in the food chain, which are gathered using destructive fishing practices. One area where this impact has been felt most keenly is the Firth of Clyde, where the Community of Arran Seabed Trust (COAST) worked for over a decade to campaign for the establishment of a No-Take Zone (NTZ) at Lamlash Bay.

Between 2011 and 2014 FFI supported the University of York to undertake a multi-year monitoring programme in the Lamlash Bay NTZ – the first and only fully protected marine reserve in Scotland, and the only marine reserve in the UK that was originally proposed by a local community and which bans all extractive uses. The research sought to establish the rate, trajectory and recovery of commercially important marine species following the cessation of all forms of fishing.



FOCAL SITES

- Firth of Clyde, Scotland, UK

AREA OF IMPACT

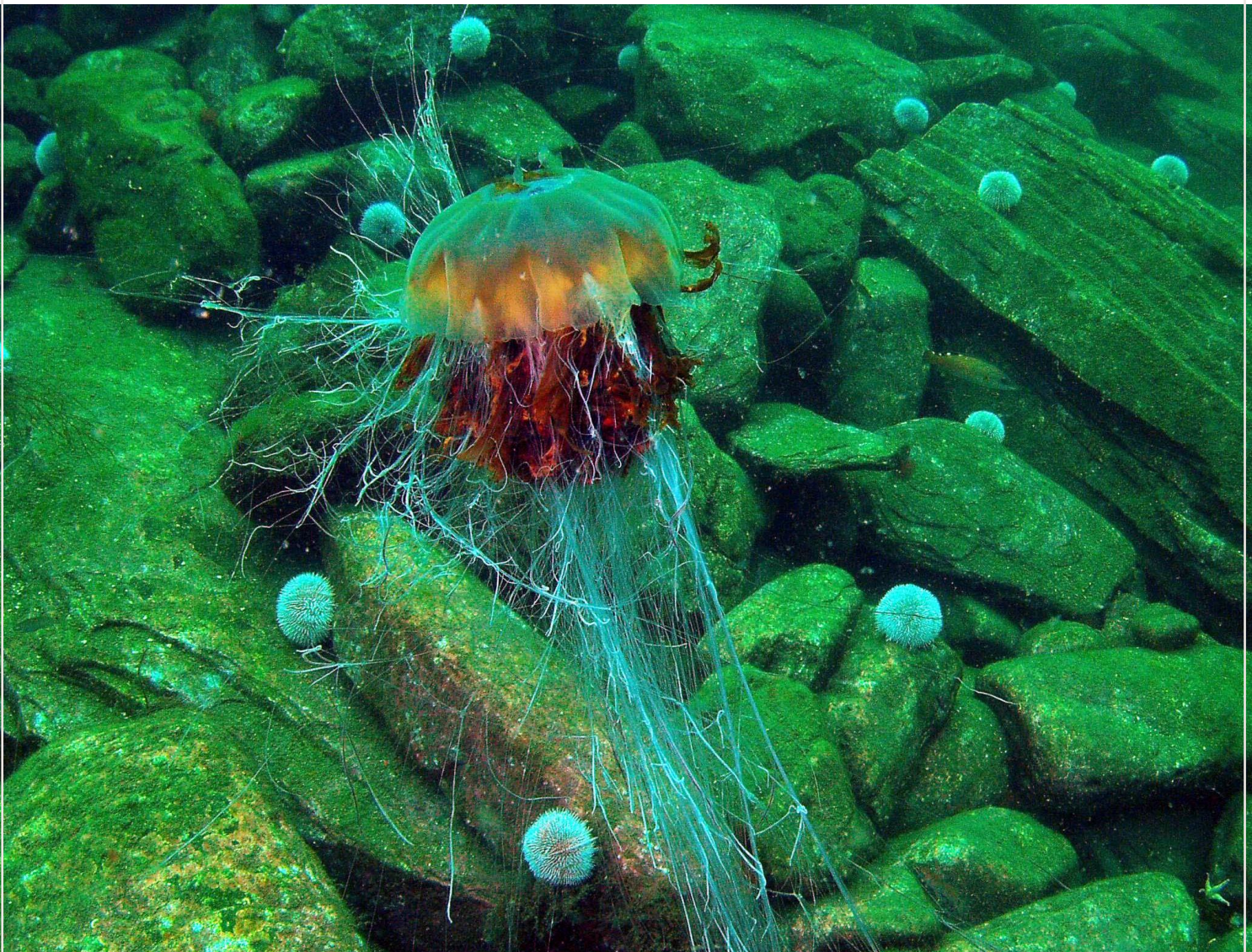
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Dive survey data and underwater video footage collected over a four-year period has generated critical evidence of ecosystem recovery, with the number of species, number of individuals and overall biodiversity observed inside the NTZ greater than the surrounding area. This includes commercially important species such as cod and haddock, which are considered largely absent from the Firth of Clyde due to overfishing. Habitats inside the NTZ are noticeably more complex than the surrounding fishing grounds, hosting abundant populations of maerl, sponges, feather stars and seaweeds.

The evidence gathered through this work shows the applicability of closing areas to fishing as a crucial management tool to provide both biodiversity conservation and fisheries benefits. The study directly informed the successful campaign by COAST to establish a new South Arran Marine Protected Area (MPA) (one of 30 sites designated in July 2014), informed their arguments for more effective management of this site (approved February 2016), and has provided the basis for ongoing ecological monitoring within the NTZ. Strategic communication of the study results through five peer reviewed publications and

via mainstream media channels is encouraging consideration of the costs and benefits of protection in future management decision making. The monitoring of inshore marine resources by local communities is a growing theme both at grass roots level and within Scottish government agencies (who are keen to explore the role that local actors might play), drawing in part on the experiences of NTZ monitoring at Lamlash Bay. This work has also catalysed our wider programme of ongoing work to support coastal communities in Scotland to engage with marine protection (see pg. 60).

To coincide with the 10th anniversary of the establishment of the NTZ in September 2018, FFI helped to create an online [StoryMap](#)¹⁴ – a visual case study detailing COAST's journey to achieve the first community designation of this kind in Scotland. The anniversary was also promoted through the Coastal Community Network website and via FFI's social media channels and FFI's Marine Community Support Officer participated in an opening event for COAST's new marine education centre (the Octopus centre) which took place a few days later.



Strengthening partner capacity





OUR APPROACH

Many of the highest biodiversity marine areas lie within developing countries that have limited technical, human and financial resources to contribute to their effective management. Despite this, the most effective and long-term solutions for safeguarding species and habitats lie in local hands; strong and effective local, national and international institutions are the key to successful conservation. We believe that authentic conservation leadership from within coastal communities has a vital role to play in driving change for the ocean, and in inspiring others to take action for sustainable and productive seas.

FFI is committed to identifying organisations within our regions of operation that can have the greatest impact for marine conservation and assisting them to reach their full potential. We support a diverse range of partners (government agencies, NGOs, academic institutions and community-based organisations) to access the technical and financial resources they need to deliver conservation.

Targeted training and capacity building support has been provided to 31 in-country partners over the last year, including government institutions (e.g. in Aceh, Cambodia and Myanmar), civil society organisations (e.g. in Turkey, Cambodia, Tanzania, Kenya, Honduras and Cape Verde) and community groups (e.g. in Aceh, Tanzania and Scotland). We have also started to test how we might support emerging local champions for marine conservation - individuals who can spearhead future initiatives in their own countries. We are increasingly able to show evidence that our partners are becoming more effective as a result of this support, for example, government partners in Cambodia independently collecting, analysing and acting on MPA enforcement data to community groups in Scotland recruiting dedicated staff to lead on the MPA implementation.

We have also continued to build our own internal capacity for marine conservation, through training, learning from partners, exchange and mentoring across the global learning network.



ACTIVE PROJECT OUTLINES

Strengthening Community Institutions in the Firth of Clyde, UK

SECURING MARINE SITES

STRENGTHENING PARTNERS

As part of FFI's work in the Firth of Clyde, we support two local institutions to deliver and advance effective marine conservation in the locality: COAST and SIFT.

COMMUNITY OF ARRAN SEABED TRUST (COAST)

The local community group Community of Arran Seabed Trust (COAST) campaigned for the establishment of the No-Take Zone at Lamlash Bay on the Isle of Arran in Scotland (see pg.60) and are involved in the enforcement of this site. FFI has supported COAST in developing their institutional strategy and governance systems in order to advance their ambitions to establish a wider Marine Protected Area (MPA) around the south of Arran, and to help other local communities replicate similar approaches to the management of their seas.

In July 2014, COAST's proposal for the South Arran MPA was approved by the Scottish Parliament and the site was formally designated. Further consultations and efforts by COAST in 2015 to promote the effective management of the new MPA, led to the approval of comprehensive Marine Conservation Orders¹⁵ that prohibit dredging and limit trawling activities within the MPA. These progressive and ground-breaking measures, which represent a significant revision from those originally proposed by the authorities for this site, were upheld by the Scottish Government's Committee for Rural Affairs despite strong lobbying efforts by the fishing industry. This is a significant achievement, indicating that the concerns of a wider group of stakeholders are being acknowledged within marine management

debates in Scotland. In addition, COAST received valuable public recognition when its Chairman Howard Wood was awarded the prestigious Goldman Environmental Prize in 2015, following FFI's nomination.

FFI's partnership with COAST continues to evolve as the organisation strengthens. During 2017, we provided responsive organisational mentoring and advice, as required, which has included supporting COAST in the recruitment of a new Director for the organisation. The work of COAST demonstrates how pragmatic community or NGO approaches can achieve gains that complement wider governmental processes. This is resulting in a growing awareness of community rights in marine conservation, and an increased engagement from this sector in marine management. COAST was a key player in the community workshop we organised in May 2016, sharing their experiences and providing inspiration for other groups seeking to embark on a similar journey. This has since paved the way for the expansion of our joint marine work in Scotland and catalysed positive engagements with other grass roots groups through the Coastal Communities Network (see pg.54). This year, we have continued to support COAST to respond to the many requests for support that they receive from other like-minded communities wishing to engage actively in marine conservation issues, and to be at the forefront of developing a network of marine and coastal communities in Scotland. This has included regular contact with the Chair, holding a joint workshop at the Europarc Conference in September 2018, supporting the opening event for COAST's new marine education centre, and continued fundraising support.



FOCAL SITES

- Firth of Clyde, Scotland, UK



SCOTTISH INSHORE FISHERIES TRUST (SIFT)

Also in the Firth of Clyde, FFI supported the Scottish Inshore Fisheries Trust (SIFT) to strengthen their institutional capacity, and continue to provide technical input to the SIFT steering committee. Our support has helped SIFT establish the required structures and funding to advance their planning and lobbying for alternative, sustainable models for fisheries within the Firth of Clyde, and they are now in a position to help other related organisations to source funds for their work.

In 2015, SIFT submitted an ambitious draft Regulating Order to Marine Scotland, as a means to introduce sustainable fisheries management in the Firth of Clyde. This innovative but controversial approach to zonation of the Clyde and restriction of dredging and bottom trawling did not gain the expected political traction and was rejected by the Government, in part due to a change in minister after the May 2016 Scottish elections. SIFT have since engaged on a new project around the reform of fisheries legislation in Scotland, adapting their strategies to stay ahead of a dynamic political environment and the impacts of the departure of the UK from the EU, and continue to engage with FFI through the project steering group.

Recognising the need for ongoing advocacy and political lobbying to protect biodiversity and minimise the direct threats posed to sensitive inshore waters around Scotland – especially those posed by destructive fishing methods - we have provided support to SIFT this year to ensure that they can respond proactively to public-facing consultations on potential future regulatory/legislative developments, for example around the development of commercial scale salmon farming and kelp dredging operations. The emergency political lobbying around the potential mechanical dredging of kelp on Scotland’s west coast has, in particular, been a focus for SIFT in 2018, who have amplified the message of the grass-roots “Help the Kelp” campaign to prevent this new (but almost universally condemned) activity and have used their network of influential Scottish politicians to enshrine protection of kelp into national law.

SIFT’s mission complements FFI’s wider programme of marine work in Scotland, helping to create enabling policy conditions for the kinds of bottom up, small island conservation that is the cornerstone of our work, and that of the growing network of local partners.



Improving capacity for effective MPA designation and management in Scotland

SECURING MARINE SITES

POLICY & PRACTICE

STRENGTHENING PARTNERS

Building on existing partnerships in Scotland, FFI and the Community of Arran Seabed Trust (COAST) (see pg. 58) embarked on a new joint initiative that aims to ensure coastal communities are effectively represented in inshore marine conservation, and that community impacts (beyond fisheries) are considered in governmental decision making. The aim is to create a network that will enable peer-to-peer support between communities to advocate for sustainable management and appropriate protection of the inshore resources upon which they rely. This project seeks to build on lessons from COAST’s success in bringing about community-led protection of a marine site in Scotland and to offer bespoke support to other communities with similar ambitions, to help them realise their goals.

Following the recruitment of a Marine Community Support Officer in 2014, the project actively engaged with a series of local groups around Fair Isle, the Loch Sunart to the Sound of Jura MPA, and the Wester Ross and Summer Isles MPA – all of which have aspirations to improve the management of marine habitats and species in their localities (with either agreed or proposed MPAs). Local groups from all over Scotland are

now approaching the Community Support Officer for advice and guidance, and we are providing diverse support to a range of groups, including assistance with organisational and governance development (such as charity registration), operations, and fundraising. Where requested, the project has helped groups to emerge, or supported them to broaden their remit beyond single-issue campaigning to offer local representation on a wider range of marine conservation issues within their area.

By enabling these local groups to become more organised and strategic in their advocacy efforts, and providing direct assistance to help communities access political processes, the project has helped to successfully influence government decision-making around the management measures to be applied within specific MPAs. As a result, these are more progressive and will reduce threats to sensitive habitats and species from damaging fisheries activities. For example, there are now bans on scallop dredging in the Wester Ross MPA and the South Arran MPA, along with increased closures to trawl fishing in these two sites and the Loch Sunart to the Sound of Jura MPA.



FOCAL SITES

- Loch Sunart to Sound of Jura Nature Conservation MPA
- South Arran Nature Conservation MPA
- Wester Ross Nature Conservation MPA

AREA OF IMPACT

92,789 hectares



The project also provided crucial support to the Fair Isle community to allow them to move forward with their ambition to secure Scotland's first Demonstration and Research MPA, which was designated by the Scottish Government in November 2016 (see pg. 45).

With the aim of creating a self-supporting network of communities, the project has actively supported the development of linkages between groups, so that they can not only work together to share experiences and solve mutual problems, but also develop a collective voice to raise issues with the government. In 2016 the project held a highly successful Marine Communities Workshop, bringing together representatives from local community organisations, relevant government agencies and NGOs for a weekend of experience-sharing and relationship-building. Building on the aspirations expressed by community groups at that workshop, we have facilitated the development of a vibrant Coastal Communities Network, with its own website through which groups can share news, resources and experiences, (see www.communitiesforseas.scot), facilitated by a Project Officer employed by FFI. The number of community groups participating in the network has grown from eight in 2017 to 13 in 2018. A second highly successful workshop was held in May 2018, attended by 50 participants including representatives from 11 of the network's community groups. The project has this year facilitated four groups to nominate an area of the West coast of Scotland as a "Hope Spot" (an unofficial global network of important marine sites, run by the NGO Mission Blue), a designation that would generate significant publicity for the groups involved, for Scotland's MPA network and for the habitats and species present in this area.

This year, the Coastal Communities Network has started to establish its own identity and to gain political influence with the Scottish authorities, who have used the network as a means to reach and engage with appropriate community groups interested in marine management matters. For example, following a workshop which FFI and the government co-facilitated last year, FFI and the Coastal Communities Network are collaborating with the government on an Inshore Participatory Monitoring initiative, which aims to involve people who live around the coast in collecting biological data. As an additional benefit, two groups in the network have this year received underwater survey equipment from the government to enable them to better monitor their marine life.

In another example, Community Conservation Network members were invited this year by the government to be a part of their annual student project initiative, whereby MSc students will be supported to tackle local research needs identified by the community groups. As well as getting their research needs met, this will enable community groups to build invaluable links with both government and participating academic institutions. This will also help to build recognition of the mutually beneficial role that community groups can play within the marine conservation arena. Two issues that have been high on the public and political agenda this year are kelp dredging and salmon farming, and the project has supported community members to unite via the network to submit joint positions to the government and engage with the media on these topics.

Whilst inputs from a range of different organisations and campaigns underpin the Government's decision to strengthen proposed management measures in these MPAs, effective organisation from within these communities has been recognised by the Scottish Government as an important influence. Over the past four years, the Government has shown both increased awareness and support for appropriate marine conservation and management models that better reflect broader community needs and aspirations. There has also been an increasing realisation of the potential for local partnerships to help the Government deliver effective marine management against a backdrop of decreasing state resources. FFI's role in facilitating this community engagement has been recognised, and government agencies are increasingly requesting our participation in marine management matters. For example, FFI was the sole environmental group invited to participate in a study on the socioeconomic impacts of management measures in Scotland's MPAs in 2016, and has become a member of the Steering Group for a repeat study, which started in 2018.

Looking forward, we see a continuing role for FFI over the next four years to build an effective and independent Community Conservation Network in Scotland, whilst maintaining the continuity of support to the individual communities as they gain their own expertise and confidence. The goal, subject to the will of network members, is to develop the network towards independence in the future, with FFI potentially continuing to provide long-term advice or governance support, if needed.

Coordinated community conservation, Pate Island/Lamu, Kenya

SECURING MARINE SITES

POLICY & PRACTICE

STRENGTHENING PARTNERS

The north coast of Kenya, stretching from the Tana Delta to the Somali border, is an area of global biodiversity significance, characterised by a mosaic of largely intact coastal and marine habitats. This region holds 60% of Kenya's mangrove forests and hosts the country's largest and most important wetland. Collectively, these habitats support a wide array of marine species, including sharks, dolphins, dugongs, and sea turtles. The inshore and pelagic fisheries are particularly important to the livelihoods of the local Bajuni and Swahili peoples, as are the mangrove forests, which have been harvested by certain coastal communities for centuries.

This area has come under increasing threat from unsustainable levels of harvesting of natural resources, increased pollution, deforestation and habitat conversion. In addition to the ecological consequences, these changes have negatively affected the traditional inhabitants of the area, who have been unable to safeguard their lands from large commercial interests and land speculators (e.g. marine port development).

In 2010 FFI helped to catalyse the development of competent community institutions capable of effective natural resource management. In addition, the project helped to bring these institutions together into a forceful conservation constituency able to address some of the wider-scale challenges to the north coast environment. This conservancy model draws on lessons from more than 15 years of conservation effort in Kenya by FFI, and is increasingly recognised as an important instrument for community development. The local institutions are now operating together as Northern Rangelands

Trust-Coast (NRT-Coast), linked to the central Northern Rangelands Trust model that has proved successful in terrestrial conservation in northern Kenya. FFI's engagement with the NRT-Coast effort has been predominantly channelled to the marine management efforts of the Pate Island Marine Community Conservancy.

At Pate, 10 beach management units (BMUs), a model for collaborative management of inshore marine resources in Kenya, have been established. A fisheries co-management plan has been developed to guide the joint activities of communities and authorities in delivering the individual BMUs, and to provide an overarching framework for coordinated action across all 10 sites within the conservancy, including implementing restricted-use zones to protect areas of high biodiversity and important reef habitats. The plan is currently awaiting final sign off from the authorities, however work is progressing in the meantime to lay the foundations for effective management at these sites. For example, this year two No-Take Zones (NTZs) totalling 80ha were established within the BMU areas of authority. Patrols have revealed a significant reduction in the number of people illegally fishing within these areas. It is also anticipated that two temporary octopus closures will be operational by the end of 2018, with the aim of increasing support for community-led conservation and sustainable fisheries management. FFI will be well-placed to support the implementation of these, given our experience implementing similar closures in Pemba, Tanzania.

FOCAL SITES

- Mtangawanda CMA
- Kizingitini CMA
- Tchundwa CMA
- Ndau CMA
- Pate-Shanga Ishakani-Shanga Rabu CMA
- Faza/Siyu/Mbwajumwali CMA



AREA OF IMPACT

109,440
hectares

A team of 12 rangers are operational within Pate Island Marine Community Conservancy, conducting daily surveillance patrols of the area, including the NTZs, to curb the threats posed to habitats and species from illegal fishing, turtle poaching and mangrove destruction. A patrol boat, purchased early last year with the support of co-finance, has enabled the team to significantly increase the coverage and effectiveness of their patrol efforts. This has resulted in the confiscation of over 190 illegally extracted mangrove poles by patrols this year alone, the disbanding of illegal logging camps, and the apprehension of mangrove loggers and turtle poachers. The strong level of support from the authorities to prosecute illegal practices significantly reinforces the role and impact of the rangers, as prior to this project such individuals would have been let off with a caution. All information gathered through the work of the rangers (using the innovative Marine-CoMMs system) is incorporated into a central database and will be used to inform ongoing management and enforcement. Activities have also been undertaken this year to strengthen the capacity of the team to conduct in-water coral reef monitoring, to establish a beach clean initiative and improve waste management systems in one of the villages. Local awareness of sustainable fishing methods so as to reduce the extent of destructive beach purse seine net fishing, and to restore degraded mangrove areas; evidence suggests that 78% of the 1,600 seedlings planted in 2018 have been successful.

Pate Conservancy also established a conflict resolution committee with neighbouring conservancy, Kiunga, in order to minimise conflicts between their communities, particularly in relation to beach seine fishing. This year Kiunga Community Conservancy has been supported through further capacity building, with a focus on training them to collect vital biological data to show the effects of protection, training rangers and initiating further patrols of their inshore marine environment. Going forward the Conservancy plan to eradicate the use of destructive beach seines in Kiunga through encouraging fishers that use this fishing gear to exchange it for less damaging gear, launching a campaign lobbying for behaviour change, and establishing by-laws to prohibit their use.

The 'Fish to Market' programme, which aims to enhance the sustainable production, processing and marketing of fish with fishers from Pate and neighbouring conservancies, was piloted in 2016. The programme is currently under review in light of dwindling interest from fishers to engage in this scheme, which is perhaps due to its current low economic incentives. The NRT team will continue to draw learning from this pilot, and to explore opportunities to adapt this programme for greater impact in order for fishers to gain access to improved freezing, processing and distribution opportunities.

The project team continues to monitor developments around the Lamu Port-South Sudan, Ethiopia (LAPSETT) Infrastructure Corridor (a large, consented and as yet unconstructed port development) which is likely to impact sensitive marine ecosystems within parts of the Pate Island Marine Community Conservancy. The supporting infrastructure for the port is already under construction, and the first shipping arrivals are anticipated in 2019. This development has unfortunately led to the conclusion of management efforts at one LMMA within the Conservancy, due to boundary conflicts with future shipping channels. Despite this, the development of the Pate Conservancy management plan and the associated capacity for monitoring is considered to be a positive step forward in being able to highlight and mitigate the potential issues that could arise once the port becomes fully operational. Importantly, the fact that all of Pate's communities are working together through the conservancy structure will ensure that those most affected by the port development maintain access to resources and are represented within a structure that can give them a voice to raise any concerns posed by the development.

We anticipate ongoing engagement with local partners within NRT-Coast, and are currently exploring ways in which we might support and strengthen the effective long-term implementation of marine management and conservation efforts within the Pate Island Marine Conservancy, and other marine focused conservancies in this important seascape; support for in-country strategic planning and programme development were completed with partners in October 2018.





Credit: FFI

Supporting marine champions through the Conservation Leadership Programme (CLP)

STRENGTHENING PARTNERS

The marine conservation sector is significantly under-represented in terms of civil society efforts, training and professional development opportunities, and donor funding. Mobilising an effective cadre of new and dynamic marine conservationists and local marine conservation champions is an effective way to grow the enthusiasm and skills needed to drive forward marine protection in some of the countries where it is most needed.

FFI is a founding member of the Conservation Leadership Programme, which champions and provides training, mentoring and career development opportunities to young conservation leaders. FFI has supported young marine conservationists through the 'Future Conservationist Award' scheme. Since 2016, six teams of young leaders have received mentoring and funding to undertake and manage their own projects to overcome threats to important marine species and habitats, and to develop these into larger programmes of work. Experience from 30 years of the CLP shows that individuals who have received this investment into their early career development very often go on to become successful conservationists, catalysing wider action and becoming significant players in the conservation community within their home countries.

Two projects were chosen for support in 2017, one of which aimed to reduce threats to mobulid rays posed by the small-scale fisheries sector in Sulawesi, Indonesia. This project has since successfully signed a collaborative agreement with the local Fisheries and Food Agency, ensuring their support for ongoing project activities, and found that the use of LEDs by fishers resulted in a promising 30% decrease in bycatch. The second project aimed to assess threatened sharks and rays in the Andaman Islands, India, and has successfully published a paper documenting new shark species in the region and their life-histories, which has reportedly enabled the development of more effective management strategies that support species-specific protection of sharks.

Two projects were supported in 2018, one focused on reducing threats to horseshoe crabs in Odisha, India, posed by fisheries' bycatch and the degradation of nesting habitats, and the other focused on identifying and addressing the drivers of thresher shark decline in Alor, Indonesia. One person from each team attended the CLP conservation management and leadership training course in North Sulawesi, Indonesia and received training in a broad range of conservation-related skills. This training built their capacity to lead further marine conservation efforts in their countries and provided them with support from the very active CLP alumni network of experienced conservationists.

LEGACY PROJECT OUTLINES

The following capacity projects are considered “Legacy” projects in which FFI maintains an active interest, but does not currently play an operational role.

Community Conserved Areas, South Kenya Coast

SECURING MARINE SITES

POLICY & PRACTICE

STRENGTHENING PARTNERS

The south Kenya coast, from Msambweni to Vanga on the Tanzania border, is an area of outstanding natural beauty and biodiversity. FFI has actively supported communities living along the coast to take a greater role in the effective management and care of their marine resources through participatory management and through the diversification and development of sustainable livelihoods (to both reduce fishing pressure and build resilience within marine ecosystems).

FFI’s support to a network of nine Community Conserved Areas (CCAs), has included the facilitation of community consultations and help to develop locally appropriate by-laws to support improved fishing practices, delineate strictly protected No-Take Zones, and empower community surveillance patrols.

The project supported the development of robust and accountable governance structures to underpin the long-term management of the CCAs; known as Co-Management Areas (CMAs) from 2017 onwards. This has included providing training to enhance the operation of management committees, ensure fair processes to appoint committee representatives, and to improve knowledge of

sustainable fishery practices in order to reduce over-exploitation. Management plans detailing how

the Government and communities can collaboratively deliver the CCAs were previously approved for two sites - Vanga and Kibuyuni (and as the first plans to be developed for CCAs in the country, offer a model for replication), and a further management plan for Wasini was approved last year (with support from the African Nature Organization). As a result, communities have a clearer understanding of their roles and responsibilities in promoting sustainable management, and report that the governance bodies developed under this project are playing a key role as civil leaders within their communities (including on issues beyond marine conservation).

Biodiversity surveys undertaken in 2016 generated important baseline information on the status of habitats and species in four of the CCAs. An increase in fish populations is perceived by some fishers – particularly those fishing around the boundaries of one of the No-Take Zones, at Kibuyini. This improvement is attributed to a reduction in illegal fishing due to CCA patrols and the habitat enhancing effects of seaweed farming, which is leading to spill-over of fish into surrounding fishing grounds.

FOCAL SITES



- Majoreni CMA
- Vanga CMA
- Kibuyuni CMA
- Shimoni CMA
- Wasini CMA
- Mkwiro CMA
- Jimbo CMA

AREA OF IMPACT

9,040
hectares

Wider ecological monitoring in the project area reinforced the importance of Kibuyini, which has particularly high coral cover and among the highest fish biomass measurements of all No-Take Zones on Kenya's south coast; and this site is recognised as a demonstration site for other communities interested in this form of marine resource management. Socio-economic data gathered within the project sites indicates that communities have an improved appreciation for co-management and a sense of enhanced rights and influence over resources since the inception of the CCAs.

Political tensions and the risk of conflict surrounding the Kenyan elections reduced the level of activity at project sites last year, but five communities have remained active in managing their CCAs. The provision of a patrol boat by the government to the Kibuyini community further reinforced local efforts to prevent illegal and damaging forms of fishing at this site.

This project has provided an important model for the establishment of CCAs on the Kenyan coast, helping to clarify the legal and regulatory framework for these areas. A key focus last year was to ensure that the lessons and experiences from this process were shared more widely. A film – featuring members of the Vanga, Kibuyini and Funzi Beach Management Units (BMUs), a briefing paper for the Government and a summary of lessons learnt were produced and shared with relevant stakeholders. The film was widely shown during 2017 and was well received by project communities, who were motivated and inspired to learn more about the work of their neighbours. In Kibuyini the village chairman, Mr Mohammed highlighted that the film was “*a testimony of the work we have done and the processes we have gone through*”.

An important development last year was the move, led by the Fisheries Department, to develop a seascape scale co-management plan that aims to enhance the conservation and management of marine resources across the entire project area; the plan brought the designation of the CCAs more closely in line with Kenyan national law, meaning they were now referred to as “Co-Management Areas” (CMAs). Critically, the plan builds on the groundwork laid by this project and will include all seven sites and the county-level BMU network, as well as bringing in additional management measures for the areas beyond these sites to achieve the intended goals. This year the international Global Environment Facility (GEF) Small Grants Programme in Kenya (implemented by United Nations Development Programme) identified the Shimoni-Vanga seascape as an ecologically sensitive area of global and national significance in which the Small Grants Programme would be implemented. This programme is offering small grants to local stakeholders, including BMUs, and will continue to build on the development of a co-management plan, strengthening the capacity of BMUs and their active management role.

While FFI does not directly work in implementation in Kenya's south coast, our local partner, the East Africa Wildlife Society (EAWLS), is now involved in the development of the plan and expects to play a key advocacy role in this process to ensure the lessons from implementing community-based protection can be accommodated. In 2018, EAWLS reported that the Shimoni and Vanga BMUs continue to actively manage their marine environments, collecting fees from fishery landing sites and enforcing by-laws. It was the work with these BMUs along the South Kenyan coast that inspired the development of a similar marine co-management model on Pemba Island in Tanzania, which we are also supporting the implementation of (p.32).



Building capacity for marine conservation in Central America

SECURING MARINE SITES

POLICY & PRACTICE

STRENGTHENING PARTNERS

Marine ecosystems in the Central American region are rich in biodiversity, as well as being of great importance to the welfare and livelihoods of coastal communities. However, ecosystem degradation, resource depletion and inequitable distribution of benefits from conservation are causing biodiversity loss, degraded fisheries, conflict over access to marine resources, and livelihood impacts on local communities. These problems are prevalent in Honduras, Costa Rica and Nicaragua.

For each government, it is a priority to restore over-exploited marine ecosystems and strengthen the capacities of coastal communities both to participate in conservation and to emerge from poverty, through improved fisheries and new activities such as ecotourism. Marine Protected Area (MPA) initiatives in which all parties understand the role they play and are empowered to deliver this (building good governance) should be central to the strategy for achieving both conservation and poverty goals, but current models are ineffective in conserving biodiversity and sustaining livelihoods.

Through a regional alliance, FFI and partner organisations in Honduras, Costa Rica and Nicaragua worked to demonstrate and promote innovative MPA and resource governance that emphasises biodiversity conservation together with fisheries management, support for local livelihoods, and engagement of coastal communities in decision making and responsible use of resources.

In Honduras, the project helped to leverage government commitment to increase the size of the Cuero y Salado Wildlife Refuge to protect important marine habitats, and catalysed the participation of fishers in management and decision-making. This work has now evolved into a discrete project in this area of the Honduran coast (see pg. 27).

In Costa Rica, the Cabo Blanco Marine Management Area was designated in 2017, following a pioneering process to involve the local Cabuya community in identifying important areas for both conservation and traditional uses to guide the establishment and future management of the site; this is the first coastal MPA (designated for biodiversity protection) to involve local people in decision-making. This year, FFI and project partner CoopeSoliDar have helped the fishing association of Cabuya to become registered as a legal entity (a process of organisation that is required to make them a legitimate stakeholder in the new MPA), while facilitating dialogue between this association and the Costa Rican Ministry of Environment in order to develop the country's first genuinely co-managed MPA.

In Nicaragua, FFI and its partners worked to highlight marine conservation priorities to the Government, and to support the development of a community-led proposal for a special Marine Zone for Life and Development around Gigante, which has now been presented to the authorities. The designation of this site will help to protect important turtle populations in an area that forms part of the so-called 'Coral Corridor'. This work has evolved into a separate project to support co-management and address destructive fishing practices, particularly blast fishing, within the Coral Corridor (see pg. 25).

While governments in the three countries have in principle been supportive of greater community engagement, our experience has been that the adoption of formal collaboration between communities and government is a slow process, and the time taken to grant formal recognition and empowerment (particularly where these are breaking new ground) has constrained the pace of change. The work has reaped rewards, however, by laying the critical foundations for our important new elements of work in Honduras and Nicaragua (see pg. 27 and pg. 25).

FOCAL SITES



- Costa Rica
- Honduras
- Nicaragua

AREA OF IMPACT

82,093 hectares (Costa Rica). NB: Other areas are now included in reports on *Coastal communities for integrated seascape management in Honduras* (pg.27) and *Expanding marine conservation on the Pacific Coast of Nicaragua* (pg.25).



Developing models of local indigenous marine management in the Philippines

SECURING MARINE SITES **POLICY & PRACTICE** **STRENGTHENING PARTNERS**

The Philippines lies within the Coral Triangle, the epicentre of marine biodiversity. The country contains 9% of the world’s coral reefs and has been identified as a marine biodiversity hotspot and a priority for coral reef conservation efforts. In the Philippines, the customary laws, beliefs and practices of indigenous peoples relating to the use of natural resources in their ancestral domains are enshrined in law. Global experiences suggest that this kind of ‘tenure’ is an important pre-requisite for reducing unsustainable practices in marine ecosystems and providing a mechanism to reduce conflicts between different stakeholders over marine resource use.

This project, which started in April 2012, supported indigenous communities in two sites (General Nakar and Aramaywan) to manage their marine and coastal resources through traditional tenure. As a result, two Indigenous Community Marine Protected Areas were established within the ancestral waters of the Agta-Dumagat and Tagbanua tribes, with management plans including No-Take Zones and enforcement strategies. Financing from visitor fees and fines from infringements was agreed and co-management

agreements were signed between the two tribes and the local government. Baseline information on threats and illegal activities was collected, to enable future monitoring of the impact of these closures in terms of both adherence and fisheries recovery.

This project was the first of its kind in the Philippines, allowing representation of a wider range of stakeholders in the MPA process and creating mechanisms by which Indigenous people’s groups could collaborate with NGOs and government departments to support the implementation of more effective marine resource management. The frameworks developed through this project are applicable in other highly biodiverse areas of Palawan and Quezon Provinces, where municipal waters and ancestral waters overlap. This work is now being taken forward by the Center for Conservation Innovation, the independent NGO that has evolved from FFI Philippines, and the models offer scope for replication to influence marine management efforts across a wider spatial scale in the Philippines.

FOCAL SITES



- **General Nakar and Aramaywan Ancestral Waters**

AREA OF IMPACT

27,724 hectares

Support to the Blue Marine Foundation

STRENGTHENING PARTNERS

We have provided support to the Blue Marine Foundation (BLUE), a foundation that aims to channel significant private donor and corporate funding into marine conservation. This organisation – which was formed by the team behind the film *The End of the Line* – uses the funds it generates to invest in securing large-scale or high profile Marine Protected Areas (MPAs) that, in addition to promoting biodiversity benefits, simultaneously raise public awareness of marine conservation issues.

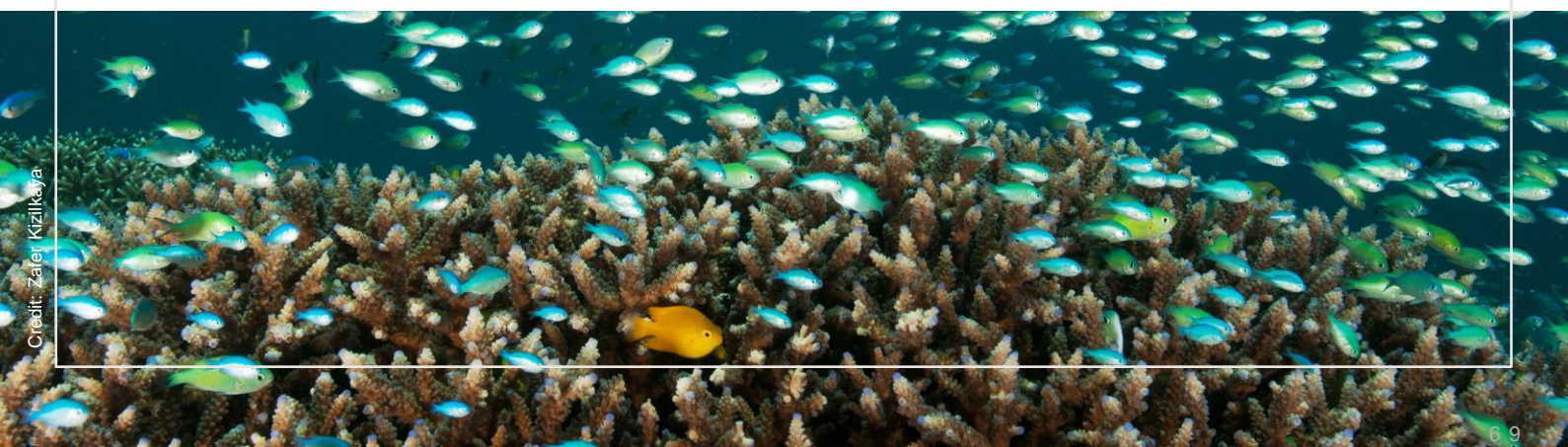
In 2010 and 2011, we provided small core grants to help establish the emerging foundation. This initial investment helped to leverage a US \$5 million grant from a private donor towards the management of the Chagos Marine Reserve. Without this investment it would not have been possible for the Government to have finalised the declaration of this 54.5 million hectare area as a No-Take Zone.

In 2013 and 2014 we continued to assist BLUE through the provision of significant in-kind support in terms of staff time, including mentoring on organisational development, governance, and recruitment. A marine specialist was recruited and seconded to the Foundation, to build in-house technical skills and capacity and to underpin the strategic development of its programme of work. We continued to provide technical marine advice and assistance, including involvement in project development in Belize, and direct support with fundraising. As an outcome of this partnership, BLUE supported FFI's work in Scotland (see pg. 60), and directly collaborated with FFI on an initiative in Belize (see pg. 38).

FFI and BLUE have continued to maintain a close relationship in 2018 through FFI's participation on the BLUE's board. FFI also provided support toward the development of BLUE's work in the Solent, where BLUE is now restoring native oyster populations, alongside continued fundraising

advice and support. BLUE is now a thriving marine NGO with a 24-strong team in place able to further develop and expand its marine conservation work, and increasing recognition as an effective organisation that gets results. BLUE has also continued its work this year to inform the revision and strengthening of UK fisheries policy (to be more environmentally sustainable), following the UK departure from the European Union (and the current EU Common Fisheries Policy).

Over the last year BLUE has continued to actively engage in campaigns to persuade the UK Government to designate MPAs around the oceanic UK Overseas Territories, including Ascension Island, St Helena and other UKOTs. This work lies under the highly visible 'Back The Blue Belt Campaign', supported by 284 MPs from eight different political parties. With the public backing of FFI to motivate action to secure large-scale MPAs, positive strides have also been made towards the designation of a new MPA in the Aeolian Islands, which is poised to become the largest MPA in Italy. BLUE has continued its work on the south coast of England (in Lyme Bay and the Solent) this year, and building on the success of the Lyme Bay project in improving the lives of fishermen and marine ecology in the area, has now started to scope opportunities to replicate aspects of this approach to address local marine conservation and community issues in four new areas across the UK. Further afield BLUE has been working to improve fishery management practices in the Maldives to prevent vulnerable grouper populations (a commercially important fish species that plays a key role in maintaining healthy coral reef ecosystems) from being overfished while they aggregate to spawn.





BUILDING FFI CAPACITY

We now have a significant body of work on marine conservation issues, engaging with and supporting a network of over 201 partner organisations (see pg.4). Our marine programme is supported and guided by a respected marine scientist who provides central oversight and coordination, ensuring that activities across our four regional programmes (Asia-Pacific, Americas, Africa and Eurasia) are linked into an effective and complementary programme of work.

In 2018, we continued to strengthen our internal marine team, welcoming our new Americas & Caribbean marine programme lead (in January 2018), to support existing projects and further develop emerging projects and partnerships, as well as recruiting marine-specific posts in our focal countries, including a Technical Officer in the Cambodia marine programme (who will lead on in-water training, data collection and capacity building); a marine specialist for our Myanmar marine programme (to support community-led conservation efforts); and an experienced marine professional to lead our work on marine plastics pollution in light of the significant scaling of these areas of work.

We have continued to support the sharing of lessons and exchange of experiences across the widely dispersed marine team this year, through our internal marine working group. This thriving community of practice convenes on a monthly basis to provide updates from the field, share knowledge and good practice, and to discuss emerging issues or thematic topics of interest. Nearly 80 individuals have attended at least one working group since monitoring began in 2017 (including from several of our in-country offices in Cambodia, Myanmar, Indonesia and Nicaragua), and a survey in January 2018 suggested that 96% of Marine Working Group participants value this mechanism for sharing and developing their skills and awareness. The group also maintains an active knowledge exchange 'hub' through FFI's

intranet, to provide an open and supportive space for staff from across the regions to seek guidance and share experiences and news.

Collaboration between our marine projects continues to improve, and the targeted exchange of lessons is providing important learning to improve the design and delivery of projects. For example, peer exchanges were conducted between marine projects in Cambodia and Myanmar this year, and lessons around community-led octopus closures were exchanged between Pemba and northern Kenya projects. Our Conservation Livelihoods & Governance team continues to facilitate learning and exchange on a diverse range of socio-economic, cultural and gender issues across our marine projects; particularly benefiting projects in Cambodia, Myanmar, Honduras, Aceh, Cape Verde and Tanzania through in-country and remote support this year. In 2018, the input of this team has helped our project teams to better assess the socio-economic contexts that they are working in, and to interpret the complex social, economic, governance and ecological factors at play to inform better project design. Through targeted capacity support, teams are also now able to pay increased attention to market-based incentives for conservation action, and to integrate gender dynamics and greater awareness of the issues that women fishers in particular face.

Recognising the importance of sustainable financing for the long term success of our conservation efforts, we have been working closely with FFI's Conservation Finance and Enterprise team this year to refresh our knowledge on the sustainable financing tools used to date within the marine portfolio, and to improve our understanding of global innovations in sustainable financing and the opportunities this presents to shape and strengthen our approaches (for example, the role of the insurance sector in developing economic incentives for better conservation outcomes). Most notably, this has enabled rich conversations with the impact investment community interested in investing in marine protected area effectiveness in FFI's countries of operation, and the exploration of new potential partnerships which we hope to establish in 2019. A report and recommendations are anticipated by the end of 2018 to inform our future action in this area.

Strengthening the evidence base for marine conservation

Demonstrating the impact and benefits of improved management for people and ecosystems is central to securing commitment to make these improvements. In country contexts where there is little active (or effective) marine management, and where the evidence base for longer-term benefits is not yet available, it can be particularly hard to convince communities, governments and the wider public to commit to changes that may be perceived to involve restrictions. Through our marine projects we are collecting information on reduced threats, and some indications of biological recovery; however we recognise the need for consistent and robust evaluations of project impacts and wider consequences across the portfolio as key to building a stronger political and social case for marine conservation within our countries of operation.

A specific ambition under this phase of the programme is to work directly with our partners to help them develop appropriate indicators and monitoring methods to track the outcomes from their work and the change that can be attributed to their interventions. This evidence and learning would also be used centrally to inform practice both within our project portfolio, and externally to inform the wider processes associated with marine management and policy.

In 2017, we engaged a dedicated staff member within the marine team to take forward this work. They first completed a comprehensive evaluation of the historical and current impacts of marine projects, drawing out the evidence behind reported impacts and documenting their findings to inform the design of future impact assessment approaches (report available upon request). Building on this strategic assessment of the impact of the programme, we have now been able to provide bespoke support to teams to develop monitoring and evaluation approaches that are adapted for the specific contexts and constraints of projects. We have also begun to synthesise the learning from this process across projects to improve our internal practices (both via the internal Marine Working Group and via internal briefing/learning documents).

In line with FFI's institutional approaches to monitoring and evaluation, we have helped to

develop strong theories of change for our work in Honduras and Costa Rica, as well as revisiting existing theories of change in Cambodia, Scotland, Nicaragua, Aceh and Turkey to reflect the opportunities for scaling and evolution within these projects. Targeted support and capacity building has been provided to FFI teams and partners in Aceh, Turkey and Nicaragua to document, analyse and interpret the evidence gathered in monitoring and impact assessment processes. For example, in Aceh we helped to design and build the impetus for in-water monitoring at our focal site (the first since 2012) to evidence the biodiversity benefits resulting from project activities. In Turkey, we helped to organise and evaluate past biodiversity data, to corroborate project impacts and successes, and to build the data management and analysis skills of our local partner, ahead of the future scaling of biological monitoring as our work there expands to several new sites in 2019.

In addition, we developed a set of internal resources and guidance related to monitoring which brought together learning from across projects (as well as examples of global best practice). Guidance focused on topics such as standardised approaches to documenting plastic waste and using "before and after" fixed point photo monitoring to show impact in a marine context. We have begun to build strategic connections with the conservation technology sector, exploring potential alliances to utilise innovative solutions to increase the scale, accuracy and effectiveness of our monitoring. These range from Artificial Intelligence (being explored with a partner in the Microsoft "AI For Earth" programme) to satellite-based marine enforcement (being explored with UK company OceanMind).

Finally, an innovative new approach to tracking impact (in which teams were asked to summarise their key current and past quantitative impacts in order to demonstrate quantifiable change) was also trialled across nine projects this year and this exercise has already helped to catalyse better co-ordination of evidence at project level and to influence processes of capturing, storing and learning from impact across FFI as a whole.





Communicating and disseminating our work to others

Communicating news and successes from our marine projects is important for building the profile of marine conservation, and the marine team works with FFI's communications staff to ensure opportunities to share information are capitalised. As described above, evaluating the positive impacts from improved marine management is vital to building support amongst communities, governments and other stakeholders. In addition, we aim to communicate about marine issues and successes more widely to make the case for marine conservation as both an urgent, and tractable, issue on the wider conservation agenda. FFI's website and social media channels are excellent vehicles for external communications and, alongside use of more traditional print publications, our communications team works to maximise the use of electronic media to share key messages in appealing, widely accessible and easily understood formats.

So far this year we have published 17 marine related news stories or blog posts on our website (including six plastics-related items), supported by associated social media posts. These reached an estimated 126,515 people. With the redevelopment of FFI's website (launched at the end of 2017), we created more space to talk about FFI's marine work with [pages aimed at drawing in new supporters](#) and other [pages targeted at a more informed audience](#). Similarly, we now have pages that [introduce the topic of marine plastic pollution](#) to people who are new to the subject, as well as more detailed [pages that outline our approach](#) to tackling these issues. We have also made it easier for people to learn more about our marine-related [news](#), [projects](#) and [documents](#).

Communications staff also regularly help colleagues in our focal countries with project related communication activities, providing valuable capacity building in communication and media skills as well as supporting their efforts to communicate messages on the impacts of marine management. This year saw the publication of a five page article in *Sunday Times* magazine that talked about the work of our partners in Scotland, and FFI's role in supporting them. The team also supported our partner in Scotland to develop and share an ultimately successful media release calling on the government to scrap plans that would allow harmful kelp dredging in Scottish waters. (see p. 63).

We also created a special marine themed issue of *Fauna & Flora* magazine this year. This magazine, which is disseminated to members and supporters, covered a variety of topics – from the impact of illegal wildlife trade on marine species to a special interview with new FFI vice-president, Hugh Fearnley-Whittingstall.

As part of ongoing efforts to share the learning from our marine work and raise the profile of our activities, we have contributed case studies from Cambodia and Aceh to inform an IUCN Guideline on 'Using Fishers' Knowledge in Policy Development and Management' (anticipated shortly), contributed a guest blog on our work in [Cape Verde](#) through the Virgin Unite platform, contributed a blog and reports from our work in Myanmar through the [Mission Blue](#) platform and provided a rapid assessment of Marine Protected Area implementation and effectiveness.

We have continued to feed information or experiences from our marine projects into regional and global dialogue on issues such as marine governance, collaborative management, and the enforcement of Marine Protected Areas. This year FFI staff participated in several high level marine and fisheries conferences or events around the world, presenting on our work or engaging in thematic panel discussions, including at the International Marine Conservation Congress (Malaysia), the Commonwealth Heads of Government Meeting (UK), the Klosters Forum (Switzerland), Sustainable Small Scale Fisheries Conference (Costa Rica), and the Our Oceans Conference (Bali). We have developed new briefing summaries this year to support the effective communication of our evolving marine plastics programme and work on coral reefs to external audiences.

In addition, FFI is one of nine UK-based organisations actively participating in a Marine CoLABoration, convened by the Calouste Gulbenkian Foundation. This seeks to enable sharing of experiences between marine focused NGOs, and find collaborative mechanisms to communicate the role of the ocean in human well-being, culture and prosperity in order to engender support for improved marine management. In 2018, the need for a collective of organisations taking this approach became ever more apparent, given the increased focus globally of governments (including in several of FFI's key marine geographies) on maximising the economic potential of national marine resources, potentially

at the expense of marine health and ecosystem functioning. FFI's evolving role in the CoLABoration involves sharing global best practice on marine management approaches to inform project development, as well as directing our own internal capacity and expertise in strategy development, fundraising and communications to chart a sustainable future for this group.

Through this group we are working closely with the Marine Conservation Society and the New Economics Foundation, who are keen to explore opportunities to increase community involvement in the designation and management of protected sites in England as a way to build greater support for the emerging MPA network. This work draws heavily on our experiences in Scotland, and has included the participation of key FFI staff in the planning and design of project activities and workshops. These will link and give support to the voices of motivated groups from designated or proposed MPAs in the counties of Sussex and Norfolk. In 2018, several of FFI's specific facilitation and strategic planning approaches were utilised in community workshops in Norfolk, with our partner Marine Conservation Society having received direct mentoring in the use of these approaches from FFI staff. The overwhelmingly positive community feedback to these approaches – particularly as an alternative to the way previous government institutions had delivered outreach – is a testament to the global relevance of FFI's participatory approach to marine conservation.



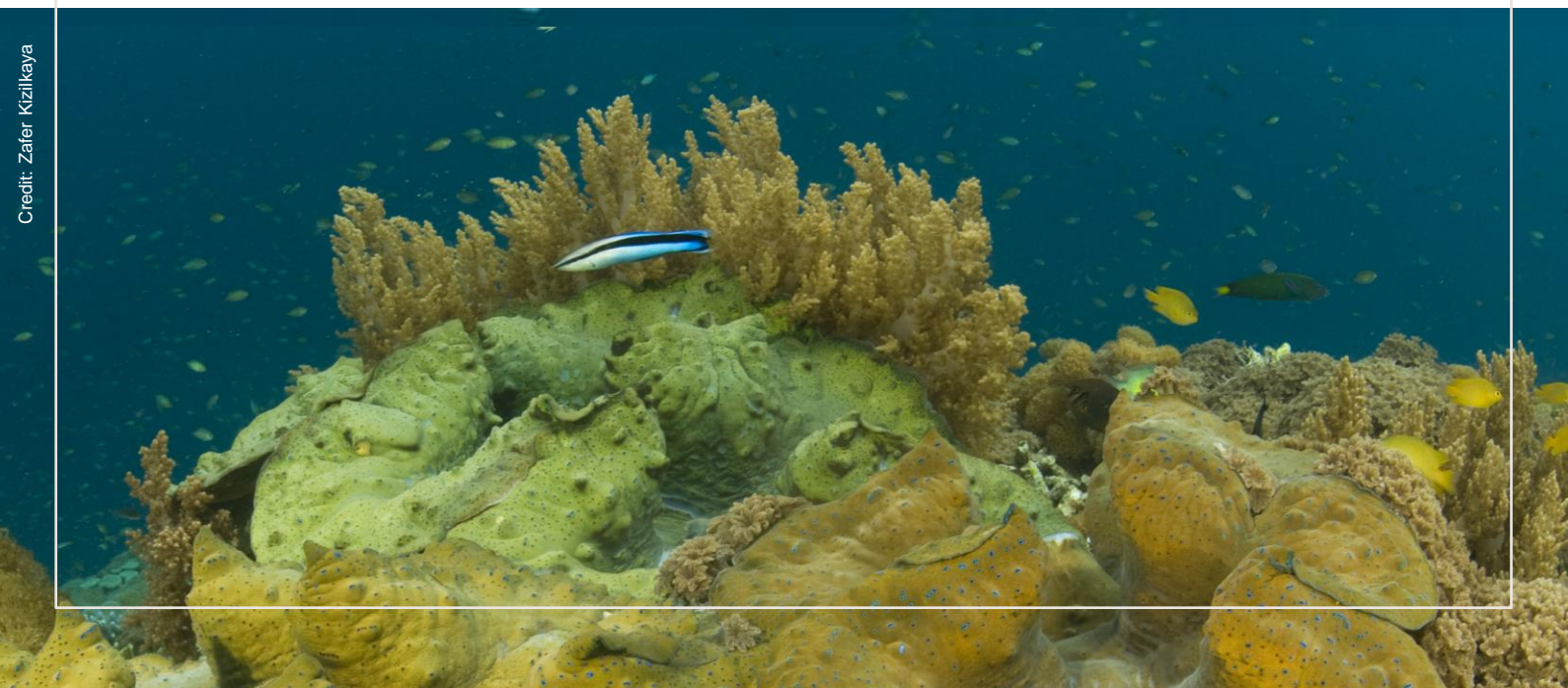
In Summary



This report summarises the results from FFI's marine programme of work since 2010, with a particular focus on progress and achievements in 2018. We have continued to develop and strengthen our programme of work in 2018, in a way that is firmly rooted in FFI's core strengths and experiences.

While actual biological impact takes some time to become evident, the report identifies outcomes that should, over time, deliver significant benefits for marine ecosystems and the people who depend on them. Achieving these outcomes takes time, and this year we have been gratified to see our sustained investment in several of our projects bearing fruit. Significant achievements this year include:

- Two new no-take-zones established within the boundaries of the Bay Islands Marine National Park in Honduras, bringing strict protection to 600 hectares of rich inshore waters in order to restore local fish populations;
- Expansion of the Locally Managed Marine Area approach in Aceh, with proposals drafted for three new community-managed areas covering 4,400 hectares of ocean, to protect locally important fishing grounds and coral reef habitat;
- Expansion of local management in Tanintharyi, Myanmar, with a zonation and boundary plan drafted for the country's fourth LMMA (building on the success of last year's initial three designations) to increase community-based protection to nearly 13,000ha;
- The biomass of reef fish in community-protected areas shown to be nearly three times higher than in the surrounding fished areas of the PISISI MPA in Aceh;
- Biodiversity gains reported from community managed zones in Cambodia, including greater seagrass cover, higher numbers of predatory groupers (indicative of a healthy balance of fish on the reef), and persistence of live coral cover;
- The discovery of a super-sized and incredibly rare Neptune's Cup Sponge within the boundaries of the Cambodia MFMA; previously thought to be extinct, but thriving in an area following the cessation of trawling activities.
- Dramatic reduction in the use of fishing nets with small mesh sizes (which unduly capture juvenile fish) (by 74%) as a result of targeted patrolling in Cuero-y-salado Wildlife Refuge in Honduras;
- New national policy to enable MPA establishment and effective implementation – which includes provision for the involvement of communities in management efforts - drafted and translated in Myanmar (the first of its kind in the country);
- Commercial long-line fishing fleets required to use by-catch reducing hooks in Nicaragua to minimise fishery impacts on turtle populations following approval of new national policy;
- Concerns raised over the potential impacts of trawling on marine turtles has motivated the passing of a new law in Myanmar which requires the fishing sector to use bycatch reducing devices on drag nets, trawl nets and large stow nets;
- Revenues from tourism user fees (Cambodia) and a proportion of profits from negotiating better catch prices (Pemba) are being used for the first time to support ongoing marine management activities and associated community projects in target sites;



- New partnership launched with Ocean Mind using innovative satellite-based monitoring to assess fishing effort across Cambodia's maritime zone; one of the world's key illegal fishing hotspots;
- New partnership launched with the Endangered Landscapes Programme to scale successful community-led management approaches for protecting seagrass and reef habitats along a 500km stretch of the Mediterranean coast in Turkey;
- New partnership launched with the Blue Action Fund and local partners to establish a network of effectively implemented marine protected areas around the highly biodiverse islands of São Tomé and Príncipe;
- Successful breeding of endangered Mediterranean Monk Seals confirmed in two caves within Gökova Bay, leading to strict legal protection for these locations to minimise disturbance;
- 100% of all leatherback nests and more than 90% of all Eastern Pacific hawksbill nests were protected from poaching during the 2017/2018 nesting season in Nicaragua, resulting in the release of 137 leatherback and 8,751 hawksbill hatchlings to the sea;
- FFI's recommendations on reducing the loss of plastic pellets is now recognised in key policy documents including EU Plastic Strategy, the G7's Plastic Charter, and the global packaging standard 'British Retail Consortium Global Standard', which is used by more than 4,000 companies worldwide;
- FFI positioned as a lead NGO partner in the Commonwealth Clean Oceans Alliance – launched in London in April 2018 – which seeks to unite the 53 countries of the Commonwealth in ambitious action to tackle plastic pollution in the world's ocean;
- New initiatives launched in Cambodia and Kenya, and in development in Honduras to reduce the threat of plastic pollution in our focal marine geographies;
- The Good Practice Guidance for Oil and Gas Operations in Marine Environments – launched last year – has been adapted for the marine megafauna and habitats of West Africa and will be applied to future industry engagements in Senegal, Mauritania, Guinea-Bissau and Sierra Leone;
- Continued growth of the Scottish Coastal Communities Network gives voice to thirteen community groups on key issues relating to the management of inshore waters;
- Local community groups supported to nominate an area of the West coast of Scotland as a Mission Blue "Hope Spot", a designation that will generate significant publicity for the groups involved, for Scotland's MPA network and for the habitats and species present in this area;
- FFI's ongoing support to Scottish partner SIFT helped to ensure their active political lobbying around the proposed mechanical dredging of kelp (a critical coastal habitat) on Scotland's west coast, amplifying the message of the grass-roots "Help the Kelp" campaign to influential Scottish politicians and enshrining protection of kelp into national law;
- Conservation Leadership Programme investments into young conservationists enables the first satellite tagging of thresher sharks in Alor, Indonesia (gathering vital data to inform their management).





We have continued to make solid progress across all our marine projects this year. Due to the nature of our marine programme – which comprises a number of projects, and types of projects, and which involves many moving parts – there have been some delays in implementation rates this year. A combination of internal and external factors have contributed to this, for example:

- A number of the countries where we are working are challenging environments where activities can get delayed or affected by political processes beyond our control (e.g. as described in project updates from Nicaragua, Pemba, Cambodia, Costa Rica);
- We decided not to proceed with some development opportunities that were on our radar such as Cuba and Halmahera (see pg. 78). In the case of the latter, the lack of an appropriate local partner and emerging commercial interests created uncertainty over the opportunity for impact. We have continued

to explore opportunities for new partnerships and projects (e.g. pg 78), and feel confident that our internal project design and review processes enable us to identify those projects with the greatest chance of success (and which ensure the best investment opportunity for our donors).

- Some development opportunities – such as our plans for São Tomé and Príncipe - have taken longer than expected to bring online. This is linked to the variable capacity of local partners that we work with and the need to ensure that we have robust planning processes in place to develop the shared vision behind projects. Excitingly work to establish a network of effectively implemented Marine Protected Areas in São Tomé and Príncipe is now getting underway, and we will provide a full update on this in 2019.

ANNEX: SCOPED OPPORTUNITIES THAT HAVE NOT ADVANCED

The following project and partnership opportunities have been explored, but for the reasons explained have not been further developed into full projects at this time.

Supporting Marine Conservation Efforts in Cuba

Cuba's rich terrestrial and marine biodiversity is unmatched within the Caribbean region. FFI has worked in Cuba through granting schemes and has a number of in-country relationships with partner institutions, but has not to-date had a significant regional programme of work in the Greater Antilles. The recent trends towards liberalisation in Cuba and the thaw of Cuban-U.S. relationships could spell significant changes in the tourism and fisheries sectors on the most biodiverse island in the Caribbean, with the potential for dramatic impacts on many pristine marine and coastal habitats and the species that inhabit them.

In 2015, initial in-country scoping activities within Cuba to assess the opportunities and needs for marine and coastal conservation, and to identify how FFI might work with, and support, potential partners and projects. These early investigations indicated the potential for FFI to add value to existing efforts around a range of themes including Marine Protected Area (MPA) governance and financing,

spatial planning to manage the threats to biodiversity in seascapes primed for tourism development, and the conservation of flagship species.

Given the uncertain political, social and economic situation that persists in Cuba, we are proceeding cautiously, and have not yet identified specific activities or partnerships to pursue. However, with the recent recruitment of a new technical marine resource into our Americas and Caribbean programme - who will also focus on the development of new projects (see Building FFI Capacity pg. 70), we intend to continue to explore the needs and opportunities for marine conservation in 2018, particularly in the east of the country, which is receiving less attention from the Government and non-governmental conservation community than the south and west.

Ridge-to-Reef Conservation on Halmahera, Indonesia

Weda Bay in Halmahera has been identified by the Indonesian Government as a priority area for Marine Protected Area (MPA) development, in light of the wealth of biodiversity and the reliance of the local people on healthy marine ecosystems. However, Government funding to expand protection measures in this important area has been lacking. Drawing on our experience of securing marine tenure for communities in Indonesia, facilitation of public-private partnerships, and development of sustainable conservation solutions, we investigated opportunities for a new project in Weda Bay.

Scoping activities were initiated in 2015; however, due to limited local partnership opportunities and a changing context for engagement (linked to emerging mining interests), which has created substantial uncertainty over what can feasibly be achieved in this area, it was decided not to advance this project further at this time.

Exploration new marine projects, Croatia

FFI explored opportunities for new marine projects and partnerships in Croatia in 2013. Despite the positive engagements and interest from environmental agencies to engage with FFI on marine activities, significant political restructuring and legislative changes were

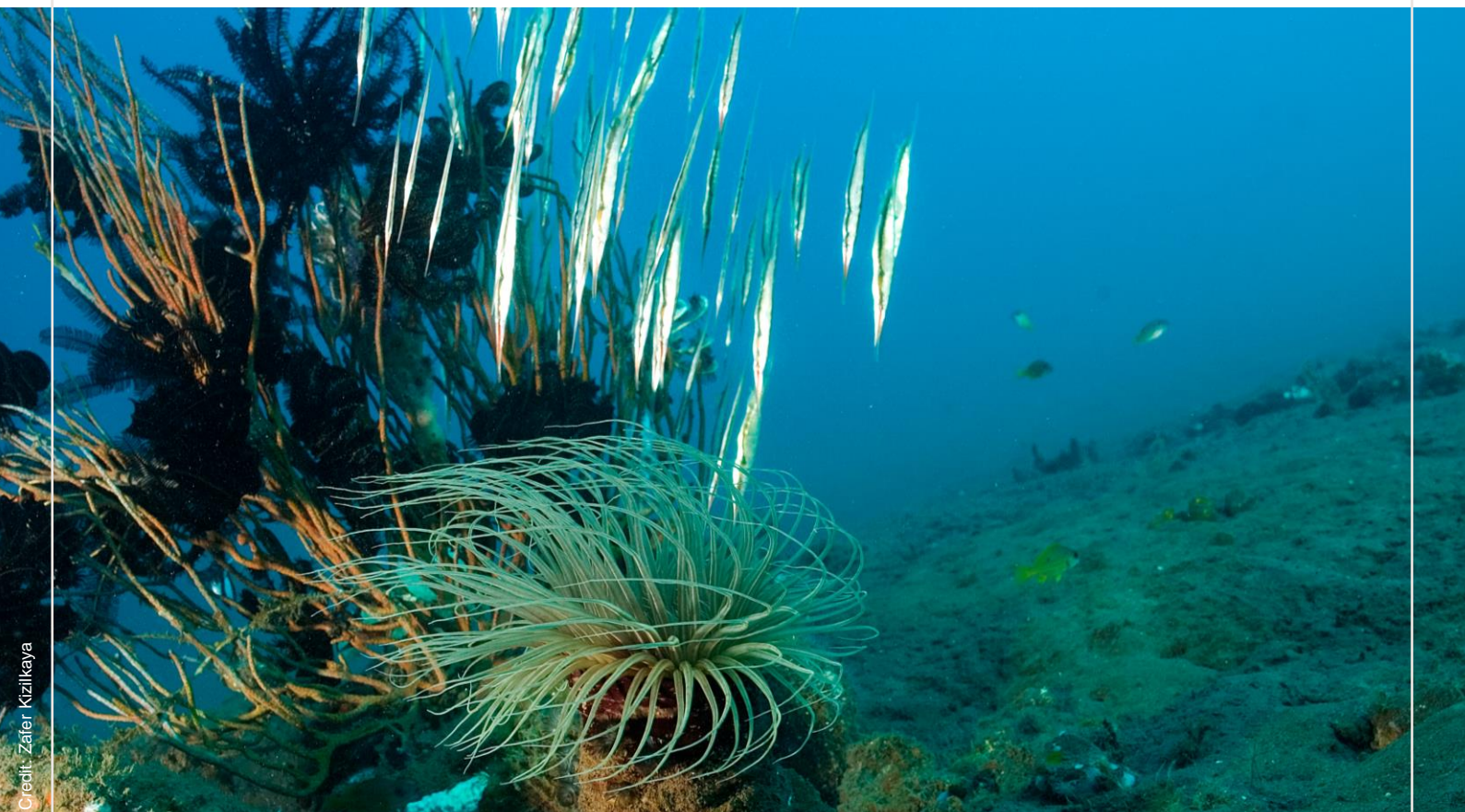
underway in Croatia as part of their ascension to the European Union. This uncertain political backdrop did not provide a favourable basis for new project development at the time, and development of marine work in that country has not been taken any further.

Catalysing partnerships for marine conservation in Bali, Indonesia

Bali Province has one of the highest levels of coral species richness in the world, and an associated abundance of marine fish as well as other important marine ecosystems such as mangroves and seagrasses. Marine ecosystems in Bali face significant pressures from tourism and coastal development as well as threats from high levels of trade in marine ornamental species, and destructive fishing practices.

FFI identified key conservation needs at a site in northern Bali, and to develop partnerships with two local Indonesian NGOs with specific institutional capacity building needs that FFI was well placed to support and which, if addressed, would enable them to engage in a more meaningful way in marine conservation in Bali.

In 2013 FFI worked closely with these partners and was able to provide them with the relevant support and training to meet their requirements, specifically developing their strategic planning and long-term financial strategy. A review of future opportunities did not identify significant added value from further engagement at this site, and as such we have not made any further investments to this project.





Credit: Jeremy Holden/FFI

FOOTNOTES

¹This figure does not include scoping projects (a number of which did not progress as planned – see Annex)

²The term “Marine Protected Area” or “MPA” is used in this report as a catch all term for sites designated for the purpose of nature conservation, but recognising that these may have a range of management measures and strength of protection applied.

³Independent measurement of the status of key species, species groups and/or habitats has taken place in 19 of these sites. In the remaining two sites, evidence that local stakeholders perceive improvements in marine resources and habitats has been collected.

⁴Details of this work will be reported in 2019

⁵Fauna & Flora International (2018). Saving The Ocean From the Grassroots Up – FFI Marine Programme. https://api.fauna-flora.org/wp-content/uploads/2018/11/FFI_Marine-Strategy-2018.pdf Cambridge: UK.

⁶Our specific engagement with sites can change from one year to the next. Direct engagement relates to sites that are the principle focus of FFI or partners’ intended impact, whereas ‘indirect’ relates to sites that FFI and/or its partner’s activities have an impact on but are not the core focus of that project.

⁷We are working with AKD to review patrol data, standardise the observed reductions according to the level of patrol effort and these figures are likely to change.

⁸Cadman, M., Stock, P. & Weeks, I. (2017). The Ripple Effect – Partnerships for Marine Conservation in Turkey. In *Sea, My Life: Protecting Oceans, Sustaining Our Future* (pp 51-56). UNDP-Global Environmental Finance Unit: New York.

⁹Roig-Boixeda, P., Chea, P., Brozovic, R., You, R., Neung, S., & San T (2018). Using patrol records and local perceptions to inform management & enforcement in a marine protected area in Cambodia. *Cambodian Journal of Natural History* 9.

¹⁰Fauna & Flora International (2017). Good Scrub Guide – Assessing the Use of Plastic Abrasives in Facial Exfoliators. <http://www.goodscrubguide.org/>

¹¹Beat The Microbead – International Campaign Against Microbeads In Cosmetics (2017). <http://www.beatthemicrobead.org/>

¹²Environmental Audit Committee (2016). Environmental impact of microplastics. Fourth Report of Session 2016-17.

<http://www.publications.parliament.uk/pa/cm201617/cmselect/cmenvaud/179/179.pdf>

¹³Fauna & Flora International (FFI). 2017. Biodiversity and Ecosystem Services: Good Practice Guidance for Oil and Gas Operations in Marine Environments. FFI: Cambridge U.K. https://api.fauna-flora.org/wp-content/uploads/2017/12/FFI_Good-Practice-Guidance-for-oil-gas-operations-marine-environments-.pdf

¹⁴<https://ffi.maps.arcgis.com/apps/Cascade/index.html?appid=70448e12ec3c45139beca33dfc990b7a>

¹⁵Marine Conservation Orders are provisions under the Marine (Scotland) Act 2010 that enable Scottish Ministers to ensure the conservation on nationally important marine natural and cultural heritage.

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