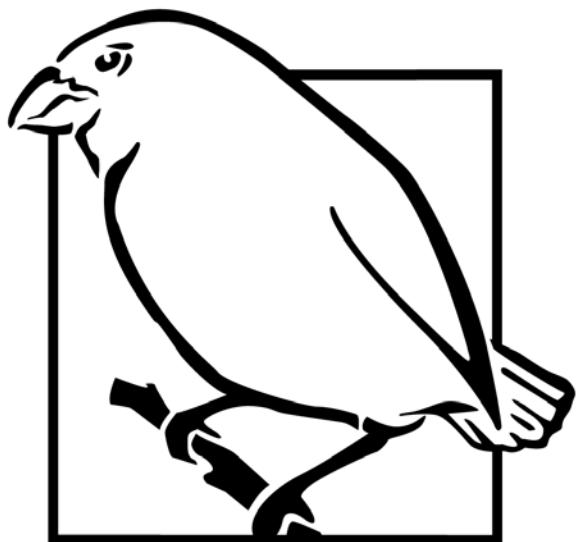


# Newsletter

August 2019



Plastic waste on the shores of South East Asia, Credit: ZSL



**DARWIN  
INITIATIVE**

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The Darwin Initiative supports developing countries to conserve biodiversity and reduce poverty. Funded by the UK Government, the Darwin Initiative provides grants for projects working in developing countries and UK Overseas Territories (OTs).

Projects support:

- the Convention on Biological Diversity (CBD)
- the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
- the Nagoya Protocol on Access and Benefit-Sharing (ABS)
- the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)
- the Ramsar Convention on Wetlands
- the Convention on the Conservation of Migratory Species of Wild Animals (CMS)
- the Convention on Climate Change (CCC)



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*Demarcating the protected area,  
Credit: Birgit Hermann, Blue Ventures*

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*Microplastics being analysed in the lab, Credit: Raiz Azul Cabo Verde*

## Publicity and information about the Darwin Initiative

For more information on the Darwin Initiative please visit [gov.uk/government/groups/the-darwin-initiative](https://www.gov.uk/government/groups/the-darwin-initiative)

For further details about current and completed Darwin Initiative projects, including their final application forms, please visit [darwininitiative.org.uk](https://www.darwininitiative.org.uk)

We also have a blog, that includes news and thoughts on issues being tackled by the Darwin Initiative – both at the project and programme level. You can read it here [darwininitiativeuk.wordpress.com](https://www.darwininitiativeuk.wordpress.com)

We're also keen to share other Darwin project blogs. If you have a blog you'd like to share on our website, please get in touch at [darwin-newsletter@ltsi.co.uk](mailto:darwin-newsletter@ltsi.co.uk)

## Publicity and referencing Darwin Initiative

We kindly remind project leaders that if they are publicising their work then it is important that they make every effort to mention Darwin Initiative funding. This is important as it helps us to ensure the Darwin Initiative retains a high profile and secures continued Government funding.



*Collection of domestic waste in São Francisco, Credit: Raiz Azul Cabo Verde*

## A word from Darwin

When plastic as we know it was first introduced in the early 1900s, it was revolutionary. It was used to create materials such as polystyrene, polyester and polyvinylchloride (PVC). However, plastic wasn't mass produced until the 1940s where it was widely used as packaging for carbonated drinks and milk. It swiftly became the material of choice over ceramics and glass due to its durability, cheap production and high resistance to heat and chemicals. One of the major reasons that plastic has been so successful is the fact that it seems to last forever. We now know that this is also one of its greatest drawbacks.

Plastic can now be found everywhere, in every country across the globe. Our reliance on plastic as a society has meant that it has played a key part in our lives for decades and due to plastic's hardy nature and inability to decompose, every piece of plastic that has ever been created still exists today. In the past few years attitudes towards plastic have changed, as a greater awareness of the 'plastic problem' has arisen.

Plastic pollution is washing up on beaches across the world, being digested by marine life, and even ending up in the food that we eat.

In an effort to tackle the plastic crisis many countries such as Kenya have implemented a plastic bag ban, and in this edition of the newsletter we hear from two Darwin projects working to ensure that existing waste material can be re-used and repurposed for the reforestation of saplings and that new sustainable alternatives can be found. The Net-Works™ project in Southeast Asia is breathing new life into discarded fishing gear by transforming it into eco-friendly carpet tiles, benefitting both people and the planet. The word carried out by Darwin projects highlighted in this newsletter outlines the impacts that plastic pollution has on biodiversity, local livelihoods, and the environment, but also acts as beacon of hope that practical solutions to plastic pollution may be on the horizon!

We hope you enjoy this edition of the newsletter!



Fishing boats with loaded nets,  
Credit: ZSL

## Net-Works: Empowering communities for Oceans with 'more fish and less plastic'

Globally, 8 million tonnes of plastic enter our oceans and over 100 million tonnes of fish are removed each year. On current trajectories, by 2025 there will be one tonne of plastic for every three tonnes of fish. Southeast Asia is the hotspot for these issues but also for marine biodiversity. An estimated 3.35 million artisanal reef fishers (>50% of the global total) live in Southeast Asia and depend on these declining fish stocks. Fishers in Southeast Asia are amongst the poorest sectors of society, and face some of the greatest pressure from declining resources. Southeast Asia is a hotspot for both critically important coral reefs and mangroves, which are not only essential for food and income provision, but also for protection from the increasing frequency and severity of storms.

As well as being a hotspot for marine debris, over 85% of carrageenan (a thickening agent extracted from red and purple seaweeds) comes from seaweed that grows in Southeast Asia. An estimated 1 million fishers are dependent on seaweed farming as their sole source of income in the Philippines alone, with the Philippines second only to Indonesia in terms of production. Seaweed farming is thus a pre-scaled industry across coastal communities that are suffering from the highest levels of pressure from overfishing and marine plastic pollution.

“ Out of the total number of species threatened with extinction, 25 of these are or were globally unique to Guinea, increasing the likelihood of global extinctions ”

Whilst the global market value for carrageenan is increasing rapidly, with a projected value of around US\$1bn by 2021, the current supply chain is fraught with inefficiencies and inequalities. Therefore, carrageenan is fast becoming the 'palm oil of the sea'.

Net-Works™ was co-founded by the Zoological Society of London (ZSL) and Interface Inc. and has been working on a simple, scalable and holistic solution that is working to address these issues. Launched in the Philippines in 2012 (expanding into Cameroon in 2017), Net-Works™ has continued to improve the lives of coastal communities and protecting critical coastal ecosystems through an innovative and inclusive business model that reduces plastic and increases fish, creating a win-win-win for conservation, development, and business!

Net-Works™ communities are connected to global brands via a fair and inclusive business model, that started with the collection of discarded fishing nets.



*Weighing the fishing nets,  
Credit: ZSL*

Collected nets are recycled by Aquafil, a global producer of Nylon 6 yarn, and supplied to Interface Inc who buy the yarn and turn it into eco-friendly carpet tiles.

To do this, Aquafil has pioneered state-of-the-art technology to produce yarn from recovered fishing nets and other waste. Net-Works™ has been progressively building on this foundation and to date have collected more than 200 metric tonnes of nets (and increasing daily) which is enough to go around the world over five times! This tackles several challenges at once: acting as encouragement to communities to clean up their local marine environment and ensuring that they have a way of disposing of old nets.

This business model has since been applied to other raw materials created by these communities in order to help us scale the impact; namely seaweed carrageenan and other plastics. We've already conducted successful scientific trials of ecological seaweed farming in the Philippines. However, research is still ongoing as we're looking to see where value can be added and how to ensure that this value is then transformed into profit for the community. Through our experience with the nets we learnt that they are low value, which is why it is important to find the most efficient supply chain possible. An efficient supply chain will result in high value items

being passed to the communities whilst keeping the costs associated with running the programme as low as possible.

Net-Works™ has already given 1,500 families access to finance through our community banks, with over 1,200 members voluntarily making small weekly contributions to an 'environment pouch', which is used to support conservation activities. Recently, one community ranked by national measures as one of the poorest in the country, contributed around US\$500 to upgrade their marine protected area guardhouse!

It has been a very positive journey so far, as something that started out as a prototype has now grown into a programme that has improved the marine environment for more than 64,000 people! One of the most striking changes we've seen is the sense of empowerment communities have derived from taking charge of their income and their environment, and with a model like this we can have a truly scalable supply chain – one that benefits all life. Through Net-Works™ we have the opportunity to empower communities to dramatically change the face of marine conservation, forever!

For more information on project 25-024, please click [here](#).



*Dead green turtle hatchling found amongst plastic waste, Credit: Nicole Esteban*

## How to protect sea turtles from plastics in the British Indian Ocean Territories

The British Indian Ocean Territory (BIOT) covers 640,000km<sup>2</sup> of marine protected area including an archipelago of 58 beach-fringed tiny islands. These beaches are targets for breeding females from regionally important populations of green and hawksbill sea turtles. Although only one of the islands in the far south of the archipelago is inhabited (Diego Garcia), the beaches see large amounts of ocean-borne plastic washing ashore. Our new Darwin-Plus funded project seeks to understand and mitigate negative effects of plastic waste on sea turtles. The team partners the Zoological Society of London, Swansea University and the British Indian Ocean Territory administration.

“ We know from other studies that plastic can impede sea turtle excavations, affect the conditions in the nest by changing the temperature and humidity of the sand, present a physical barrier when hatchlings emerge from the nest, and be an inadvertent source of food

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Beach waste tends to aggregate between the high tide mark and just beyond the vegetation line at the top of the beach. This belt of beach is also the target for nesting sea turtles coming ashore to dig deep pits and lay hundreds of eggs. We know from other studies that plastic can impede sea turtle excavations, affect the conditions in the nest by changing the temperature and humidity of the sand, present a physical barrier when hatchlings emerge from the nest, and be an inadvertent source of food for surface-feeding, omnivorous hatchlings.

The project team visited BIOT in June 2019 to start characterising and determining the origin of beach plastic waste. Comparing data from waste collected during beach cleans in Diego Garcia with that still in-situ on the beaches in both Diego Garcia and Egmont atolls, over 80% was found to fall into three categories: polystyrene pieces, flip flops and single-use plastic bottles. Plastic bottles had labels originating from 17 countries from Japan to Tanzania with the largest contributor being Indonesia, almost 3000km to the west.

In addition to investigating beach waste, we are exploring how people stationed on Diego Garcia can reduce their use of single-use plastic. While this plastic isn't contributing significantly to beach waste, we want to identify suitable, more sustainable and ocean-friendly

alternatives to single-use plastic that better reflect the unique biodiversity and protected status of BIOT. To achieve this, we are bringing experience from our #OneLess campaign, working to eliminate the need for plastic bottled water in London by creating a new system in which people use refillable bottles and tap water. Our key messages relate to the global need to reduce the amount of plastics, the importance of taking responsibility for our plastic use, and that everyday actions and decisions around plastic impact the ocean.

BIOT shares many challenges with other Overseas Territories – small islands in remote locations, difficult and expensive logistics, limited resources, and challenges with waste management. Dealing with ocean-borne plastic waste adds another burden, so as we explore recycling options, these need to incorporate clever technology and be operable in these conditions

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**BIOT shares many challenges with other Overseas Territories - small islands in remote locations, difficult and expensive logistics, limited resources, and challenges with waste management**  
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– preferably in a way that creates further useful and economically beneficial products. Our aim is by the end of this project to have identified suitable possibilities that could work not only in BIOT but potentially across the other Overseas Territories as well.

For more information on project DPLUS090, please click [here](#).



*A gym ball found on Egmont Atoll during a science expedition,  
Credit: Rachel Jones*





*Saplings being propagated on recycled plastic milk packets, Credit: Good Hope Group*

## Mt. Kenya forest-adjacent community manage plastic waste

In 2017 Kenya made the bold move to ban plastic bags. This decision was gazetted by Kenya's Cabinet Secretary for Environment and Natural Resources and took effect on August 28<sup>th</sup>. Through political goodwill the action to ban plastic bags was enforced, however this brought about other challenges related to managing existing plastic waste, particularly in rural areas of the country.

Mt. Kenya Biodiversity Organization (Mt. KEBio) is the Nature Kenya site support group in Mt. Kenya West whose mandate is to monitor, educate, and advocate for environmental sustainability while improving the livelihoods of its members. The Mt. Kenya ecosystem provides water to key National Parks and generates half of the country's total hydropower. It is an important water catchment – the source of the Ewaso Nyiro North and Tana River systems, which are vital to Kenya's economic development, food security and energy generation.

Understanding the plastic issue at hand, Mt. KEBio embarked on creating awareness in local market areas

“ However, the efforts of the group do not stop there, as they are also promoting the re-use of plastic bottles as improvised drip-irrigation for watering tree seedlings in schools and local homesteads, especially during the dry season

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and organised clean-up exercises. As a result of these awareness campaigns, Mt. KEBio successfully organised three clean-up activities in the Naromoru town, Burguret and Kibunja shopping centres where over 100kg of plastic waste was collected.

Once the waste had been collected and sorted, the group separated any reusable plastic bags that were found. These bags were repurposed by using them as tree seedling potting bags, where 500 seedlings were able to be planted in the community nursery. However, the efforts of the group do not stop there, as they are also promoting the re-use of plastic bottles as improvised drip-irrigation for watering tree seedlings in schools and local homesteads, especially during the dry season.

On-farm woodlot capacity has been enhanced through innovatively re-using plastic bags, providing the much-needed fuelwood and livestock fodder. Through this increased capacity at the local community tree nursery, more indigenous tree seedlings have been raised for planting in preparation for the next phase of the Mt. Kenya forest rehabilitation.

Lessons from Mt. KEBio have been replicated by another local community group 'Good Hope', a group of people living with disabilities. Good Hope has managed to raise 8,000 tree seedlings by re-using plastic bags as plant potting material. The group intends to sell the seedlings to the local communities.

For further information on project 25-031, please click [here](#).



*Ornate and colourful fishing vessels crowd Muncar harbour, Credit: Andrew Harvey*

## No net gains to fishers from plastic pollution

In recent years there has been an increased awareness about the impact of plastic pollution on marine ecosystems. Many people have heard about the Great Pacific Plastic Patch, and are familiar with stories about plastic entangling wildlife, contaminating seafood, and encroaching on even the deepest and most remote ocean abysses. Less well known is the impact of plastic pollution on the livelihoods of the people and communities most dependent on our oceans.

Muncar is a traditional fishing port in East Java, Indonesia. Hundreds of small, brightly-coloured fishing vessels crowd the harbour, and everyday small-scale fishers set out to sea, dependent on catches of sardines and mackerel for their food and livelihoods.

“ This plastic contributes to Indonesia's position as the world's second biggest polluter, exceeded only by China

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Supported by a Darwin Initiative Scoping Award, MantaWatch is preparing to investigate how technology could help improve the sustainability of these fisheries by reducing unwanted bycatch of turtles and manta rays. Our scoping surveys have provided a great opportunity to talk to fishers and learn about their daily lives. At the onset of the monsoon season our team noticed fishers returning to port much earlier than usual, and the reason was a great surprise.

Madi, a drifting gillnet fisherman, explained, “During the rainy season there are more plastic bags, diapers and other trash floating in the ocean. During the falling tide especially, this debris can become tangled in our nets. It takes a long time to clean the nets after fishing, and often they are torn or damaged by larger pieces of debris. Whereas usually I will set my nets three or four times per night, at the moment I only have time to set once.”

With insufficient municipal solid waste management systems, the monsoonal rains wash vast volumes of plastic into streams and rivers and eventually to the ocean. This plastic contributes to Indonesia's position as the world's second biggest ocean polluter, exceeded only by China.



*Muncar fisher prepares his gillnet for the night's fishing, Credit: Vidlia Rosady*

During our scoping study our team have worked with 20 gillnet fishers to obtain preliminary baseline data. Every month at least one of these fishers has reported losing their nets. Losses increased during the monsoon rains, as the risk of drifting plastic becoming entangled and dragging nets increased. With each net having an area of approximately 500m<sup>2</sup>, these losses contribute to the serious environmental issue of ghost fishing.

Ghost fishing occurs when fishing nets, lines or other gear are lost, dumped or abandoned at sea. The unattended gear continues to capture fish as they drift the ocean currents. The United Nations reports that ghost fishing has a significant impact on target fish stocks, as well as on populations of endangered, threatened and protected species such as turtles, cetaceans, sharks and manta rays. Discarded fishing gear represent 10% of the world's marine debris, causing damage to the seabed and tidal environments, and a hazard to navigation.

Plastic pollution costs the fishers of Muncar time and money. Cleaning a net means less time to fish. Repairing a net may take four or five days, during which fishers are unable to go fishing. Replacing a net costs money,

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The United Nations reports that ghost fishing has a significant impact on target fish stocks, as well as populations of endangered, threatened and protected species

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or continuing to fish with remaining gears means a reduction in capacity and outputs. With this in mind, it is clear that plastic pollution is an issue that not only impacts the environment, but also the livelihoods and well-being of fishing communities.

As we prepare to launch a larger trial to evaluate the impact of technology on reducing bycatch, we have also begun to explore how these technologies could be adapted to enable fishers to track and recover lost fishing gear. Meanwhile, these downstream impacts and economic costs of plastic pollution add greater urgency to efforts to prevent and significantly reduce marine pollution under Sustainable Development Goal 14.1.

More information on project DARSC177, can be found [here](#).



MantaWatch team talk to fishers and learn about their lives, Credit: Andrew Harvey



*Fronde baskets from Weavers from Budalangi Handicrafts & Weavers CBO, Credit: Jennifer Adero*

## Earning a living from papyrus stems and palm leaves

In August 2017 the Kenyan government banned the use, manufacture and importation of plastic bags used for commercial and household packaging. This was hailed as a major step towards environmental conservation in the country. To date the ban has yielded promising results. Plastic bags used to litter every part of this country from Nairobi, the capital city, to the remotest areas and often blocked drains and killed livestock. It has been two years since the ban and there has been a drastic improvement seen in the cleanliness of the landscape. While the ban was a good thing, finding sustainable alternatives has not been easy. With support from the Darwin Initiative, local communities in Yala Swamp are doing their part to offer sustainable alternatives to plastic carrier bags – by producing hand-woven papyrus and a variety of palm leaf baskets.

“ Plastic bags used to litter every part of this country from Nairobi, the capital city, to the remotest areas and often blocked drains and killed livestock

Yala Swamp is Kenya’s largest fresh water wetland, a Key Biodiversity Area and a proposed Ramsar site. Predominantly a papyrus swamp, it is home to a wide range of species including papyrus endemic bird species, the nationally threatened Sitatunga antelope, and cichlid fish endemic to Lake Victoria.

It provides numerous essential ecosystem services and provides the 250,000 people who live around it with vital resources such as water, food, medicine and wood. The swamp, however, faces many threats. The over-exploitation of its natural resources by competing local communities is one of these threats, with habitat degradation, biodiversity loss and a decline of ecosystem services resulting from this.

The journey into sustainable production of high value papyrus and palm leaf products began in 2015 with three Community Based Organisations with a total membership of 89 individuals (32 men and 57 women). These groups, the Yala Weavers Umbrella, the Olalo Womens Group, and the Budalang’i Handicrafts and Weavers are able to produce a variety of items from papyrus reeds to palm leaves. Through the support from the Darwin Initiative through project 21-015, the groups were able to receive the necessary training and support, along with the appropriate tools and materials to enable them to establish a workshop and product outlet. The work continues with the current Darwin Initiative funded Nature Kenya project.

” Employing skill and creativity, the weavers hand-craft unique functional or ornamental items with elaborate designs. Their key clientele includes households, institutions, restaurants, offices and business premises. Furniture and baskets top the list of the products that are most popular with the clients. Baskets provide a good and sustainable alternative to plastic carrier bags. Fireless cookers (food warmers) made from baskets with



*A weaver displays finished picnic baskets, Credit: Jennifer Adero*

## “ Papyrus reeds and palm fronds are sustainably harvested through selective cutting as opposed to clear cutting ”

insulating inner lining are popular as kitchen energy-saving items. Most of the finished palm frond baskets are enhanced with traditional patterns using African fabrics. Furniture pieces, especially seats, are adorned with creative designs and come with detachable or fastened cushions for extra comfort.

All baskets and furniture are made from locally available materials from sustainable sources. For instance, natural dyes used on baskets are sustainably obtained from selected plant roots, leaves and barks of trees. Papyrus reeds and palm fronds are sustainably harvested through selective cutting as opposed to clear cutting. Production of high value papyrus and palm frond products encourages efficient utilisation of papyrus. Adams Adede, a seasoned artisan, testifies that, “by producing quality items such as furniture we get good

financial returns per bundle of papyrus harvested”. The weaver groups are involved in the restoration of degraded areas within the Yala Swamp and to date the weavers and other members of the Yala Swamp community have planted more than 300ha of papyrus.

With an agreed benefit sharing strategy in place, a percentage of the products’ sale price goes to fund community conservation efforts (e.g. awareness creation, biodiversity monitoring) around Yala swamp through an established conservation kitty. With funding from the Darwin Initiative, Nature Kenya remains at the forefront of supporting the papyrus and palm fronds enterprise as an incentive to communities living around Yala Swamp.

The current project will support weavers to form a cooperative and link them with large external markets. Weavers and the community will in turn restore 300ha of degraded areas in the Yala Swamp through planting papyrus and natural regeneration.

For more information on project 26-003, please click [here](#).



Domestic waste being weighed in São Francisco, Credit: Raiz Azul Cabo Verde

## Eco-village approach to enhance socio-ecological resilience in Cabo Verde

Plastic is one of the major contributors to the negative human environmental footprint globally and in Cabo Verde. One of the key goals that our project focuses on is reducing this negative environmental footprint in the four project sites and the surrounding areas on the capital island of Santiago, located in the archipelago of Cabo Verde.

Plastic usage and the resulting waste are one of the key challenges that require solutions that are both effective and practical. Through our project we started to assess domestic waste in four coastal villages: São Francisco, Gouveia, Port Rincão and Porto Mosquito. Jointly with the local community members, our team collects samples of waste (160kg/per site, before and after rainy season), analyses the composition and records the weight for waste collected in the major accumulation sites.

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High intensity of sun radiation, salty warm ocean water serves as a favourable environment for the breakdown of plastic bags, bottles, and packaging

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Interestingly but not surprisingly, plastic dominates by volume in all four project locations. After the assessment and data analysis is completed the plastic recycling machines, produced in Cabo Verde, will be purchased and installed in one of the villages to reduce the amount of macroplastics present in the environment.

Sand samples were collected from each village to investigate prevalence of microplastic in soil close to local houses or beach sand. To date, microplastic pollution has been an issue little discussed in Cabo Verde. High intensity of sun radiation, salty warm ocean water serves as a favourable environment for the breakdown of plastic bags, bottles, and packaging.

While the data collected so far is being analysed, we can report that the preliminary results from Rincão village show traces of plastic particles in sand samples. Any results are regularly shared with target communities and our joint work of tackling the plastic problem serves as an effective educational tool.

All the garbage collected during the surveys is transported to the municipal waste collection points and throughout the process we seek to research, reduce, educate and learn.

More information on project 26-025, can be found [here](#).



A view of Behau village,  
Credit: Nick Piludu, Blue Ventures

## The community of Behau in Timor-Leste is taking charge of its fisheries

In Timor-Leste the communities that live along the coastline are dependent on marine resources for their livelihoods, with small-scale, artisanal fishers making up the entirety of the national fisheries sector. The country's legislation recognises and promotes community-based resource management, and in recent years coastal communities have been increasingly using the local customary law 'Tara Bandu' to establish marine management and locally managed marine areas (LMMAs).

Since 2017, **Blue Ventures** has been working with the community of Behau to develop marine management measures that make sense to fishers and the wider community. Preliminary meetings with community leaders identified clear concerns over declining fisheries and a desire to re-establish 'Tara Bandu'.

This local customary law is used by Timorese communities to regulate social norms and manage natural resources. The development of these regulations involves multiple rounds of consultations, to ensure that the whole community has the opportunity to provide

“ They enforced a temporary annual closure of the cuttlefish fishery and put measures in place prohibiting littering of the Ocean and the coast ”

input - it is only after a consensus is reached that the regulations can be formalised.

Following the meetings with community leaders, Blue Ventures engaged the broader community in consultations to discuss local fisheries. Ideas and concerns were passionately debated by community members as the 'Tara Bandu' regulations slowly took shape. Implementing a no-take zone was the option that rapidly garnered the most interest, as some community members still remember similar measures being used during their grandparents' time. After much debate the community unanimously decided that fishers should be allowed to sail in the no-take zone but that no anchoring

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We have already witnessed the fishing communities in our project area making huge efforts to protect these breeding areas with consequent benefits not only for fish, but also for flora

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would be allowed. They also enforced a temporary annual closure to the cuttlefish fishery and put measures in place prohibiting littering of the Ocean and coast.

Based on the input from the community members, Blue Ventures and local authorities drafted the new legislation, and held informal meetings on the beach, at the market and in fishers' houses. This outreach work was a key component of achieving consensus on the 'Tara Bandu', as it provided community members (like women, youth and marginalised fishers) who may not have been comfortable in a more formal setting, an opportunity to share their views.

In December 2018 the new regulations were approved, with representatives from local authorities, the government and the community signing the village law to establish the new LMMA.

The official signing was followed by a ceremonial blessing of the surrounding waters conducted by the local spiritual leader.

Since then, the community has started to discuss building on the regulations to improve their livelihoods and are considering extending the temporary cuttlefish closure from six months to a year. Discussions are ongoing with neighbouring communities about more ambitious measures covering wider stretches of their waters, and with support from Blue Ventures, they have reached out to the Ministry of Tourism to implement an access fee for tourists who want to snorkel or dive in the LMMA.

For more information on project 24-012, please click [here](#). More information on the establishment of the LMMA can be found [here](#).



Community leaders signing Tara Bandu formalisation documents,  
Credit: Birgit Hermann, Blue Ventures





*Plastic bottles being used for sapling irrigation, Credit: Nature Kenya*

## Newsletter Contacts

### **The Darwin Initiative Secretariat (Defra)**

The Darwin Secretariat is based in Defra and includes Tim Pryce, Siriol Leach, Shaluki Perera and Scott Nelson.

If you have any general queries about how the Darwin Initiative operates please e-mail us at

**[darwin@defra.gsi.gov.uk](mailto:darwin@defra.gsi.gov.uk)**

For any queries on project applications or existing projects please contact our Darwin Administrators (LTS International) at **[darwin-applications@ltsi.co.uk](mailto:darwin-applications@ltsi.co.uk)** or **[darwin-projects@ltsi.co.uk](mailto:darwin-projects@ltsi.co.uk)**

This newsletter is produced quarterly. To include an article on your project please contact us at

**[darwin-newsletter@ltsi.co.uk](mailto:darwin-newsletter@ltsi.co.uk)**

The UK Government's Darwin Initiative aims to promote biodiversity conservation and sustainable use of resources around the world including the UK's Overseas Territories. Since 1992, the Darwin Initiative has committed over £166 million to 1,169 projects in 159 countries.