



ACCELERATING OCEAN SOLUTIONS

Ocean Innovation Catalogue





Ocean
Innovation
Challenge



DEVELOPING AN EPR SCHEME FOR PLASTIC AND PACKAGING WASTE IN THE MALDIVES

FUNDED BY:  Norway

 Sweden
Sverige



- **Innovator:** adelphi GmbH
- **Incubation date:** March 2021 to May 2023
- **Beneficiary country:** Maldives
- **Financial support:** USD 233,725
- **Category:** Private Sector
- **Main partner:** ZeroWaste Maldives

[CLICK HERE](#)



Overview

adelphi GmbH, a leading think tank and policy consultancy, partnered with the Maldives government to tackle the pressing issue of plastic pollution in this island nation. Recognizing the urgent need for sustainable waste management solutions, adelphi embarked on a mission to introduce the concept of Extended Producer Responsibility (EPR) to the Maldives. Their main local partner, Zero Waste Maldives, is already leading the way locally in cutting down on solid waste production and promoting eco-friendly practices. Through extensive research, stakeholder engagement, and policy advocacy, adelphi helped pave the way for the development of an EPR scheme tailored to the unique challenges and opportunities of the Maldives.

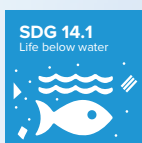
The Challenge

The Maldives faces a critical plastic pollution challenge due to its limited land area, reliance on imports, and growing tourism industry. The country's waste management infrastructure is underdeveloped, leading to open dumping and burning of waste, which threatens marine ecosystems and human health.

The Solution

adelphi helped develop an EPR scheme that makes producers and importers responsible for the proper management of plastic waste throughout its lifecycle. This approach incentivizes waste reduction, promotes recycling, and supports the development of much-needed waste management infrastructure.

SDG14 Targets:



Other relevant SDGs:



Why this matters

This innovation is crucial for protecting the Maldives' fragile marine environment, which is vital for tourism, fisheries, and overall economic and social well-being. It directly supports SDG 14 (Life Below Water), particularly target 14.1 on reducing marine pollution, by promoting sustainable waste management practices. The project contributes to a healthier ocean and a more resilient future for the Maldives. The lessons learned and experiences gained while developing the EPR scheme are also valuable for finding solutions for other SIDS facing similar challenges in solid waste and plastic waste management.

Replicate & scale up

Key factors for replication include strong government partnerships, stakeholder engagement, and a phased approach to EPR implementation. The project's experiences and outputs, including an EPR manual and implementation guide, offer valuable resources for other Small Island Developing States (SIDS) facing similar challenges. Interested individuals, communities, organizations, and investors can access these resources and collaborate with adelphi to adapt and implement EPR schemes in their own contexts.

Results & impact

The project successfully advocated for incorporating Extended Producer Responsibility (EPR) concepts into the Maldives' Waste Management Act. It also provided the Ministry of Environment with a roadmap for implementing an EPR framework. It raised awareness among 120 key stakeholders — including government officials, businesses, and local communities—about the benefits and practical application of EPR. The project's efforts have laid the groundwork for a cleaner and healthier marine environment in the Maldives.

Lessons learned

Persistence and flexibility are essential when working with government counterparts and navigating complex policy landscapes. Building strong relationships with local stakeholders and adapting to unforeseen challenges are crucial for successful project implementation.



Website: <https://adelphi.de/en>

Contact: Paolo Facco, facco@adelphi.de

Afrah Ismail, ahmed.afrah.ismail@gmail.com

PHOS-VALUE: SUSTAINABLE SOLUTIONS FOR NUTRIENT RECYCLING

Ocean
Innovation
Challenge



FUNDED BY: Norway | Sweden Sverige



- **Innovator:** AquaInSilico Ltd
- **Incubation date:** March 2021 - February 2023
- **Beneficiary country:** Cape Verde
- **Financial support:** USD 250,000
- **Category:** Private Sector
- **Main partner:** Agência Nacional de Água e Saneamento

[CLICK HERE](#)



Overview

AquaInSilico (AIS), a spin-off company from NOVA University of Lisbon, is commercializing a powerful digital service to guide waste and wastewater treatment facilities to become more economic and environmentally sustainable. With their track-record experience in bioprocess engineering, data collection and mathematic simulation, AIS was able to develop models that offer descriptive and predictive capabilities for real-time control of waste/wastewater treatment plants (WWTP).

The Challenge

Around the world, about 80% of wastewater is released to the environment without adequate treatment, damaging the ecosystem and affecting human health. Nutrient loading is among the prevalent sources of pollution, contributing to the eutrophication of water bodies, disturbing aquatic habitats or even leading to the depletion of marine corals and extinction of certain species. Small island developing states (SIDS) such as Cape Verde face specific vulnerabilities such as limited freshwater resources and fragile marine ecosystems. Phos-Value has the potential to address these challenges by improving wastewater treatment and resource recovery.

The Solution

AIS developed Phos-Value, sustainable solutions for nutrient recycling, consisting of the use of digital technologies, based on metabolic mathematical models and artificial intelligence, to help the wastewater treatment sector optimize its efficiency. UNDP OIC supported the pilot in Santa Catarina Wastewater Treatment Plant in Santiago Island to test its efficiency in optimizing the WWTP operation for the benefit of small island developing states. This was done by simulating different scenarios to enable operational improvements, implementing the one that most effectively increased nutrient removal and recovery, improved treated water quality, and promoted the safe use of composted sludge as a biofertilizer. It also helped reduce wastewater treatment plant operating costs and provided training for technical professionals in Cape Verde.

SDG14 Targets:



Other relevant SDGs:



Why this matters

This innovation is crucial for improving the wastewater treatment sector as it supports the climatic transition, by transforming conventional wastewater treatment plants into water resource recovery facilities. It directly supports SDG 14 (Life Below Water), particularly target 14.1 on reducing marine pollution. By promoting sustainable wastewater treatment practices, the project contributes to a healthier ocean, improved livelihoods, and a more resilient future.

Lessons learned

Project outputs must always meet the necessities of the beneficiary country and be adapted after site recognition. Motivated teams are key to ensuring that project activities are performed according to what was initially planned.

Phos-Value Pilot
Santa Catarina WWTP

- Located in Assomada (Santiago Island)
- 3 lines dimensioned and constructed to treat an expected flow of 225 m³/d, which corresponds to 4500 hab. equivalent
- Operating at 64% of its maximum capacity: 1 line
- Remove organic matter and nitrogen via biological treatment
- Relies on simple and energy independent processes to reduce instrumentation

1 Primary Treatment	2 Secondary Treatment	3 Tertiary Treatment
Screening Anaerobic lagoons Gravel filters	Trickling filter Filter (Over lagoon)	UV disinfection (No settling)

Results & impact

The results obtained from the sampling campaign carried out after the implementation of Phos-Value solutions indicate that the proposed sustainable solutions were able to improve wastewater treatment, reducing the COD and TSS concentrations in the treated effluent by 51% and 59%, respectively, and NH₄ and PO₄ by 86% and 51%, respectively, when compared to the baseline operation of Santa Catarina. The project also evaluated that the production of reclaimed water with quality enough to be reused could generate revenues of approximately €32 800 a year for Santa Catarina WWTP.

Replicate & scale up

Key factors for replication include strong government partnerships, stakeholder engagement, adopting a phased approach to implementing the solutions and maintaining clear and consistent communication with local managing entities. The project's experiences and outputs offer valuable resources for other Small Island Developing States (SIDS) facing similar challenges. Interested individuals, communities, organizations, and investors can access these resources and collaborate with AIS to adapt and implement the solutions in their contexts.



Website: <https://www.aquainsilico.com>

Contact: Jorge Santos, jorge.santos@aquainsilico.com

Virginia Carvahlo, virginia.carvalho@aquainsilico.com



Ocean Innovation Challenge



ESTABLISHMENT OF A PET RECOVERY AND BUY-BACK CENTRE

FUNDED BY: Norway

Sweden Sverige



Comoros

- **Innovator:** UNDP Country Office, Comoros
- **Incubation date:** March 2021 to December 2023
- **Beneficiary country:** Comoros
- **Financial support:** USD 250,000

[CLICK HERE](#)



Overview

The **UNDP Comoros Country Office** is spearheading a project to tackle the growing plastic waste challenge in the Comoros archipelago. Recognizing the urgent need for sustainable waste management solutions, the project focuses on establishing a polyethylene terephthalate (PET) recovery and buy-back center in Mohéli Island, a UNESCO Biosphere Reserve. This initiative aims to reduce plastic pollution by incentivizing the collection and return of single-use plastics and aluminum cans, creating green jobs, and protecting Mohéli's valuable biodiversity.

The Challenge

Comoros faces a mounting waste management crisis, particularly in its urban centers. Household waste, especially plastic, poses a significant threat to the unique ecosystem of Mohéli Island. The country's waste management infrastructure is underdeveloped, leading to improper disposal of waste and plastic pollution.

The Solution

The project focuses on establishing a PET and cans recovery and buy-back center in Mohéli. By engaging the local community and offering financial incentives for the collection and return of recyclable waste, the project aims to drastically increase recycling rates and create green jobs.

SDG14 Targets:



Other relevant SDGs:



Why this matters

This innovation is crucial for protecting the Comoros' fragile island and marine ecosystems, which are vital for tourism, fisheries, and overall economic and social well-being. It directly supports SDG 14 (Life Below Water), particularly target 14.1 on reducing marine pollution. By promoting sustainable waste management practices, the project contributes to a healthier ocean, improved livelihoods, and a more resilient future for the Comoros.

Lessons learned

Persistence and flexibility are essential when working with government counterparts and navigating complex logistical challenges. Building strong relationships with local stakeholders and adapting to unforeseen challenges are crucial for successful project implementation.



Results & impact

The project successfully established a PET bottles and cans buyback centre in Fomboni, Mohéli. It raised awareness among 1,500 community members and trained 52 individuals on sustainable waste management and the operation of the buyback center. The project's efforts have also resulted in the collection of 2,403 kg of plastics through clean-up operations.

Replicate & scale up

The Mohéli buyback center offers a compelling investment opportunity with significant potential for environmental and social returns. As a SIDS with a developing economy, the Comoros presents a unique setting for innovative EPR solutions. Investing in the center empowers local communities, fosters a circular economy, and establishes a new model for sustainable waste management in resource-constrained settings. This is a chance to create a lasting legacy of environmental stewardship and community empowerment. With UNDP's expertise and the project's resources, the Mohéli buyback center can be fully operationalized, ensuring its long-term sustainability and serving as a blueprint for similar initiatives.



Contact: Oumilhouda Ismael Houda, oumilhouda.ismael.houda@undp.org
Anliyat Mze Ahmed Abdallah, anlia.mzeahmed@undp.org



Ocean
Innovation
Challenge



TRACKING GOVERNMENT RESPONSES: THE GLOBAL PLASTICS POLICY INVENTORY

FUNDED BY:  Norway

 Sweden
Sverige



Duke
NICHOLAS INSTITUTE
for ENERGY, ENVIRONMENT
& SUSTAINABILITY

- **Innovator:** Duke University, Nicholas Institute for Environmental Policy Solutions
- **Beneficiary countries:** Global
- **Incubation date:** March 2021 to April 2023
- **Financial support:** USD 100,000
- **Category:** Academe

[CLICK HERE](#)



Overview

Duke University's , Nicholas Institute for Environmental Policy Solutions has developed a Plastics Policy Inventory, a searchable database of national and sub-national public policy documents targeting plastic pollution. The Inventory tracks government responses to the plastic pollution problem, including information on the effectiveness of these responses.

The Challenge

Plastic pollution is a global problem that requires government intervention. Monitoring the status of the problem and efforts to address it, including existing activities and actions by governments, can be challenging.

The Solution

The Plastics Policy Inventory is a searchable database of international, national, and sub-national public policy documents targeting plastic pollution. The database also links to a library of published studies on the effectiveness of plastic pollution policies, country-specific case studies, a how-to guide on conducting plastic policy assessments, and other reports and briefs.

SDG14 Targets:



Other relevant SDGs:

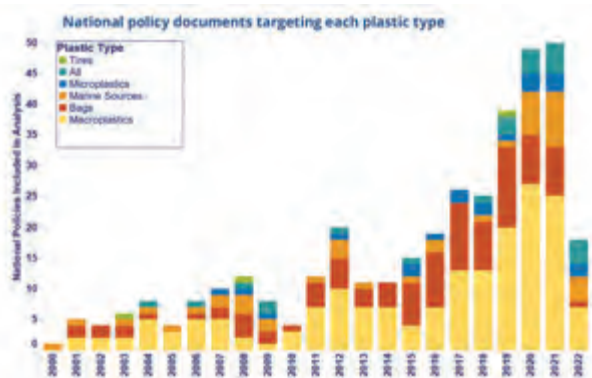


Why this matters

This innovation is crucial for holding governments accountable and supporting them to design new policies. It is an important reference for the ongoing negotiations on the Plastics Treaty and for countries aiming to improve their plastics and solid waste management strategies and policies. It supports SDG 14 (Life Below Water), particularly target 14.1 on reducing marine pollution by promoting and tracking plastic pollution policies.

Replicate & scale up

To ensure the Plastics Policy Inventory remains a valuable resource, ongoing partnership and funding for the Nicholas Institute are essential. This will allow for regular updates to the Inventory, incorporating new policies and conducting detailed content analysis. To enhance searchability and usefulness, policy instruments, plastic types targeted, and product lifecycle stages will be classified. The Institute will also conduct further analyses to support policymakers in developing effective solutions to the plastic crisis.



Results & impact

With support from the OIC, the Plastics Policy Inventory has almost doubled in size, now including 894 policies in 40 languages, and a library of over 100 effectiveness studies. Since its creation in 2000, the Inventory webpage has consistently been the most viewed page on the Institute's website, averaging over 1,500 views per month. The Inventory and its associated reports have been used and cited by the Intergovernmental Negotiating Committee on Plastic Pollution and the Global Partnership on Plastic, Pollution and Marine Litter Data Hub, demonstrating their impact on international efforts to address plastic pollution.

Lessons learned

Throughout the project, the Institute continuously improved the Plastics Policy Inventory by refining and standardizing the processes for searching, screening, and analyzing policy documents. This focus on efficiency ensured the Inventory remained a valuable and up-to-date resource for policymakers and researchers.



Website: <https://nicholasinstitute.duke.edu/plastics-policy-inventory>

Contact: John Virdin, john.virdin@duke.edu



Ocean
Innovation
Challenge



NUTRIALGAE - NOVEL SUSTAINABLE ALGAE-BASED FERTILIZERS

FUNDED BY: Norway

Sweden
Sverige



- **Innovator:** Ficosterra
- **Incubation date:** March 2021 to November 2022
- **Beneficiary countries:** Mexico, Morocco, Spain
- **Financial support:** USD 247,316
- **Category:** Private Sector

[CLICK HERE](#)



Overview

Ficosterra, a pioneering Spanish biotech startup, is revolutionizing sustainable agriculture with its innovative seaweed-based fertilizers. Committed to reducing the environmental impact of conventional farming, Ficosterra's products enhance crop yields while minimizing nutrient runoff and promoting soil health. Through its "Nutrialgae" project, Ficosterra conducted extensive field and laboratory trials in Mexico and Morocco, demonstrating the efficiency of nature-based solutions in reducing chemical fertilization and protecting marine ecosystems.

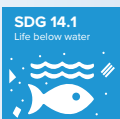
The Challenge

The global agriculture industry faces the urgent need to increase food production while mitigating the environmental impact of conventional farming practices. The overuse of chemical fertilizers leads to nutrient pollution in waterways, threatening marine life and human health. Additionally, the excessive use of chemical fertilizers degrades the soil's ability to filter nutrients, further contributing to water pollution. This degradation of soil quality can also affect long-term productivity and overall land quality, posing a significant challenge to sustainable agriculture.

The Solution

Nature-based solutions such as seaweed extracts offer a promising alternative to conventional fertilizers. Companies like Ficosterra are developing biostimulants and biofertilizers derived from readily available and renewable seaweed. These products have been shown to enhance nutrient uptake, improve soil fertility, and reduce the need for chemical fertilizers.

SDG14 Targets:



Other relevant SDGs:



Why this matters

Promoting sustainable agriculture is crucial for protecting marine ecosystems and enhancing food security. This approach aligns with SDG 14 (Life Below Water), particularly target 14.1 on reducing marine pollution, by minimizing agriculture's negative impacts on the ocean. Reducing reliance on chemical fertilizers can contribute to a healthier ocean and improved soil quality. Utilizing raw materials from the sea, such as seaweed, further emphasizes the importance of a healthy ocean. This concept is exemplified by companies like Ficosterra, which develop seaweed-based biostimulants.

Lessons learned

The Nutrialgae project highlighted the importance of adaptability and persistence in navigating logistical and regulatory challenges in international collaborations. Effective communication and strong partnerships with local stakeholders are crucial for successful project implementation.



Results & impact

The Nutrialgae project demonstrated the potential of seaweed-based biostimulants and biofertilizers to significantly reduce reliance on chemical fertilizers without compromising crop productivity. Trials indicated that such sustainable fertilization practices could reduce chemical fertilizer use by up to 30% while potentially increasing crop yields by up to 20% compared to traditional methods. The project's success in Mexico and Morocco highlights the potential of seaweed-based solutions in promoting sustainable agriculture and raising awareness among farmers, government officials, and scientists about the benefits of eco-friendly fertilization practices.



Replicate & scale up

Ficosterra's approach can be replicated in various coastal farming communities worldwide, particularly in regions with high nutrient runoff. The company offers technology transfer services, including feasibility studies, pilot plant implementation, and scale-up support, to facilitate the adoption of its solutions in developing countries.



Website: <https://www.ficosterra.com/en>

Contact: Luis Lombana, luis@ficosterra.com

Diana Cuesta, diana.cuesta@ficosterra.com



Ocean Innovation Challenge



FORTUNA COCONUT COOLERS



FUNDED BY: Norway

Sweden Sverige



- **Innovator:** Fortuna Cools, Inc.
- **Incubation date:** March 2021 to February 2023
- **Beneficiary country:** Philippines
- **Financial support:** USD 250,000
- **Category:** Start-up/Private Sector

[CLICK HERE](#)



Overview

Fortuna Cools is a social enterprise on a mission to replace plastic foam with natural fiber insulation. Fortuna Cools unlocks the power of nature's own insulation: the coconut husk. Coconut palms spent thousands of years perfecting the coconut husk to keep their fruits fresh in the tropical heat; Fortuna Cools has been working since 2018 to use this technology to keep our customers' temperature-sensitive shipments cool in the very same conditions.

The Challenge

Expanded Polystyrene (EPS) foam dominates the multibillion-dollar market for insulated packaging used to transport everything from fresh fish to pharmaceuticals. This fragile and bulky plastic foam is disliked by many, but its low cost and wide availability make it a difficult addiction to break. The result is a plastic waste crisis: millions of used foam containers enter the environment every year, blowing into waterways and washing out to sea.

The Solution

Fortuna Cools employs a human-centered design process to ensure that Fortuna Cools Coconut Coolers fit into its customers' lives and livelihoods, constantly iterating on the product and process to improve user experience from coconut farmer to shipping agent. Since their raw material is someone else's trash, they are keeping manufacturing costs low as well. Fortuna Cools's combination of high performance, thoughtful design, and affordability is finally breaking plastic foam's stranglehold on the market, reducing plastic waste on land and at sea.

SDG14 Targets:

SDG 14.1
Life below water



Other relevant SDGs:

SDG 5
Gender Equality



SDG 8
Decent work and economic growth



SDG 9
Industry, innovation and infrastructure



SDG 12
Responsible consumption and production



SDG 13
Climate Action



Why this matters

Fortuna Cools's solution addresses the urgent need to reduce plastic waste in the oceans while providing a sustainable and cost-effective alternative to traditional insulated packaging. This innovation directly supports SDG 14 (Life Below Water), particularly target 14.1 on reducing marine pollution, by replacing EPS foam with natural fiber insulation. Fortuna Cools contributes to a healthier ocean, improved livelihoods for farmers and producers, and a more sustainable future.

Replicate & scale up

Fortuna Cools is expanding its operations and partnerships to bring its innovative coconut fiber insulation to Southeast Asia and beyond. Major companies in the Philippines like Grab Foods, Shakey's, and San Miguel are eager to replace plastic foam in their supply chains with this sustainable alternative. Fortuna Cools' collaborative approach, combined with its unique technology and eco-friendly practices, positions it as a leader in the fight against plastic pollution. With its focus on utilizing agricultural waste and meeting the growing demand for insulated packaging, Fortuna Cools offers a scalable and impactful solution to a critical environmental challenge.



Results & impact

Fortuna Cools significantly increased its production volume during the OIC Incubation, allowing them to invest in new machinery, production partners, and inventory. Starting with just a few hundred coconut husks processed at the beginning of the project, Fortuna Cools diverted over 600,000 husks from incineration, transforming them into high-performance natural insulation within two years. This expansion has resulted in excess production capacity, allowing for future growth. Furthermore, Fortuna Cools's work has benefited over 1,000 farming families, and their supply chain now spans five locations across three countries and seven provinces. By replacing 8kg of EPS foam with every 1kg of coconut fiber, Fortuna Cools has reduced plastic foam in the environment by 400 tons and avoided 700 tons of CO2 emissions.

Lessons learned

Fortuna Cools' journey has been a valuable learning experience, providing key insights into expanding businesses in Southeast Asia, working with natural fibers and managing international projects. They have learned the importance of balancing rapid growth with strengthening existing operations, building redundancy into production, and staying adaptable and understanding with supply chain partners. Fortuna Cools also recognizes the crucial role of government relationships and the need for a tailored approach when engaging with government actors at different levels. These lessons have not only strengthened Fortuna Cools' own operations but also provided valuable insights for other innovators navigating the complexities of sustainable development.



Website: <https://www.Fortunacools.com>

Contact: David Cutler, david@fortunacools.com
Tamara Mekler, tamara@fortunacools.com

TACKLING MICROFIBERS AT SOURCE: INVESTIGATING OPPORTUNITIES TO REDUCE MICROFIBER POLLUTION FROM THE FASHION INDUSTRY THROUGH TEXTILE DESIGN AND MANUFACTURING INNOVATION

Ocean
Innovation
Challenge



FUNDED BY: Norway

Sweden
Sverige



- **Innovator:** Forum for the Future, APAC
- **Incubation date:** March 2021 to November 2022
- **Beneficiary countries:** Malaysia, Indonesia, Viet Nam
- **Financial support:** USD 250,000

[CLICK HERE](#)



Overview

Forum for the Future, a leading international sustainability organisation, is tackling the microfiber pollution problem in the fashion industry. Forum led a project to investigate opportunities to reduce microfiber pollution through textile design and manufacturing innovation. The project, Tackling Microfibers at source, focused on understanding where the textile manufacturing process contributes most significantly to microfiber shedding. By providing a framework for understanding and mitigating microfiber release at the source, this innovation empowers textile manufacturers to take decisive action towards a cleaner, more sustainable future for industry and the planet.

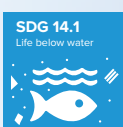
The Challenge

Microfibers from textiles are a major source of microplastic pollution in the oceans. While the industry is aware of this, there is still little knowledge about how and why microfibres are shed from fabrics in the production process. This gap in knowledge hinders the fashion industry from taking action to tackle the growing problem of microfiber pollution.

The Solution

Forum for the Future has shared a report that outlines and shares recommendations for textile manufacturers, brands, and retailers to take active steps to reduce microfiber pollution. The methodology developed through the project to identify what manufacturing processes contribute the most to microfiber shedding also allows suppliers to test their own manufacturing processes to reduce shedding.

SDG14 Targets:



Other relevant SDGs:



Why this matters

This innovation is crucial for reducing microfiber pollution in the fashion industry and protecting marine ecosystems. It directly supports SDG 14 (Life Below Water), particularly target 14.1 on reducing marine pollution. Understanding and addressing the microfiber problem contributes to a healthier ocean and a more resilient future.

Lessons learned

The project has highlighted the importance of collaboration and partnership in addressing the microfiber pollution problem. It has also emphasized the need for a systemic approach to understanding and addressing the issue.



Results & impact

Forum for the Future has developed a replicable methodology for testing microfiber shedding, offering a valuable tool for suppliers to assess and address their environmental impact. Additionally, the project has provided crucial insights into potential intervention points within the manufacturing process, empowering textile producers to take concrete steps to reduce microfiber shedding. Furthermore, the engagement with The Microfiber Consortium and multinational fashion companies signifies a crucial step towards mainstreaming the importance of addressing microfiber pollution within the fashion industry. This can lead to significant change, not only in reducing microfiber shedding at the production level but also in promoting broader sustainable practices throughout the fashion supply chain.

Replicate & scale up

Forum for the Future is working to scale up the impact of the project by engaging with other suppliers, brands, and stakeholders in the fashion industry on the importance of systems thinking in tackling complex challenges like microfiber pollution. Building from the key insights from the project, the organization has continued to conduct research and development to further progress in their work in textiles and apparel value chains with support from another foundation.



Website: <https://www.forumforthefuture.org>

Contact: Karen Sim, K.Sim@forumforthefuture.org

PROMOTING LAWS TO PROTECT OUR OCEANS, WITH THE SUPPORT OF CIVIL SOCIETY AND COASTAL COMMUNITIES



Ocean Innovation Challenge



FUNDED BY: Norway | Sweden Sverige



- **Innovator:** Fundación OneSea
- **Incubation date:** March 2021 to February 2023
- **Beneficiary country:** Costa Rica
- **Financial support:** USD 250,000

CLICK HERE



Overview

Fundación OneSea, a Costa Rican environmental organization, is tackling plastic pollution in the oceans. Since 2014, they have worked to prevent ocean pollution and the overexploitation of its resources by developing and promoting environmental policies. Their project focuses on formulating and promoting laws to protect the oceans, with the support of coastal communities.

The Challenge

Plastic pollution is one of the biggest problems affecting the oceans. In Costa Rica, a significant amount of plastic waste ends up in the ocean, threatening marine ecosystems and human health.

The Solution

OneSea proposed and promoted laws to protect the oceans, with the support of the communities, especially the coastal communities. The project focused on four types of plastic pollution: microplastics, packaging, cigarette butts, and fishing gear. Technical and comparative law studies were proposed to support the creation of four proposed bills.

SDG14 Targets:



Other relevant SDGs:



Why this matters

This project is crucial for generating better regulations focused on reducing pollution. It directly supports SDG 14 (Life Below Water), particularly target 14.1 on reducing marine pollution. OneSea's approach leverages Costa Rica's leadership in environmental solutions and takes a whole-of-society approach, demonstrating the power of stakeholder engagement and bottom-up activism to influence policy. The project also launched the Declaration of Peace with the Ocean campaign, which has garnered interest from various actors, including the UNDP Country Office in Costa Rica and the Costa Rican government.

Replicate & scale up

The open consultation methodology used in this project can be applied to other countries and regions to enhance the creation of environmental policies. OneSea is actively working to expand the project's reach and impact through collaborations and further research and development. The Costa Rican Government, one of the co-hosts for the 2025 UN Ocean Conference, is using the Declaration as a framework for discussions at the Ocean Conference to further strengthens regional and global commitments to marine conservation and sustainable livelihoods in coastal communities.

Lessons learned

The project has emphasized the importance of strong partnerships with public and private stakeholders and effective communication with the community. It has also highlighted the need for a systemic approach to understanding and addressing plastic pollution.

Results & impact

The project successfully advocated for the approval of two bills in the Legislative Assembly, from four bills proposed during the OIC Incubation. It raised awareness among 739,000 people about the importance of reducing plastic pollution. The project's efforts have also resulted in the declaration of over 40 beaches as smoke-free zones.



Website: <https://onesea.org/en>

Contact: Eduardo Leiton, eleiton@onesea.org
Julissa Chaves, jchaves@onesea.org



Ocean Innovation Challenge



CARIBBEAN SPINY LOBSTER - DEVELOPING INNOVATIVE FISHERIES MANAGEMENT AND AQUACULTURE PRACTICES TO SUSTAIN ECOSYSTEMS AND LIVELIHOODS

FUNDED BY: Norway

Sweden Sverige



University of Exeter

- **Innovator:** University of Exeter
- **Incubation date:** : July 2022 to May 2024
- **Beneficiary country:** The Bahamas
- **Financial support:** USD 250,000
- **Category:** Academe
- **Main partner:** Cape Eleuthera Institute (CEI)

CLICK HERE



Introduction

The **University of Exeter**, in partnership with Cape Eleuthera Institute (CEI), introduced a groundbreaking approach to ensuring the sustainable exploitation of the Caribbean spiny lobster, a vital resource in The Bahamas and the wider Caribbean. Their innovation project focused on developing and implementing innovative fisheries management and aquaculture practices to sustain both ecosystems and local livelihoods. The project's multi-disciplinary approach included the development of a novel genetic tool, the transfer of grow-out technology to local fishers, and a comprehensive stakeholder engagement program.

The Challenge

The Caribbean spiny lobster fishery faces a critical challenge in balancing economic benefits with ecological sustainability. Overexploitation has led to population collapse in many regions, disrupting the delicate balance of marine ecosystems. A significant portion of the Caribbean spiny lobster landings are unregulated, further threatening the long-term health of this vital fishery.

The Solution

The University of Exeter's innovation offers a multi-faceted solution to these challenges. The pilot supported by UNDP OIC involved developing a genetic tool to assess population structure and connectivity, enabling science-based management of wild stocks. Additionally, the project promoted grow-out technology, empowering local fishers to engage in sustainable aquaculture practices. Finally, the project fostered stakeholder engagement to raise awareness and co-design solutions for the fishery's long-term sustainability.

SDG14 Targets:



Other relevant SDGs:



Why this matters

This project offers a comprehensive approach to addressing the challenges faced by the Caribbean spiny lobster fishery. By integrating scientific research, technological innovation, and community engagement, the project promotes a holistic model for sustainable fisheries management. This approach not only safeguards the ecological health of marine ecosystems but also strengthens the economic resilience of local communities that depend on the spiny lobster fishery. The project's focus on knowledge transfer and capacity building ensures that the benefits of the project extend beyond its immediate timeframe, creating a lasting positive impact on both the environment and society.

Lessons learned

The project has highlighted the importance and challenges of navigating complex permitting processes, and of clear stakeholder communication to ensure the timely acquisition of high-quality genetic samples for research. It has also emphasized the need for flexible and adaptable engagement strategies, particularly when working with local fishing communities.



Results & impact

The project has achieved significant impacts across its three core innovations. In terms of environmental impact, the project has generated critical knowledge about the genetic diversity of the Caribbean spiny lobster populations, highlighting the need for a region-wide management approach. The project has successfully cultured over 200 newly settled spiny lobster juveniles in land-based facilities, laying the groundwork for establishing nurseries and developing protocols to support stock enhancement and aquaculture initiatives. On the socio-economic front, the project has successfully engaged local fishers in co-developing sustainable and community-led aquaculture activities to provide long-term employment and development opportunities.

Replicate & scale up

The project's integrated approach to fisheries management and aquaculture has strong potential for replication in other regions facing similar challenges. Genetic tools, grow-out technology, and stakeholder engagement models can be adapted to different contexts, promoting sustainable fishing practices, and community empowerment, worldwide. The project's focus on knowledge transfer and capacity building ensures that the benefits of the project can be scaled up to achieve broader impacts on a global scale.



Website: <https://www.exeter.ac.uk>

Contact: Robert Ellis, R.P.Ellis@exeter.ac.uk



Ocean
Innovation
Challenge



INCREASING ECONOMIC BENEFITS FOR WOMEN FISHERFOLK IN THE MALDIVES



FUNDED BY: Norway

Sweden
Sverige



- **Innovator:** International Pole and Line Foundation (IPNLF) Maldives
- **Incubation date:** July 2022 to October 2024
- **Beneficiary country:** The Maldives
- **Financial support:** USD 245,125
- **Category:** NGO

[CLICK HERE](#)



Introduction

The "Increasing Economic Benefits for Women Fisherfolk in the Maldives" project is pioneering the use of financial technology (FinTech) to empower women fish processors in the Maldives. It focuses on establishing an exclusive e-market platform, coupled with capacity-building training, to enhance economic opportunities and promote sustainable fishing practices. This initiative aims to overcome the limitations women face in the traditional market system and bridge the gap to a modern, globalized economy.

The Challenge

Women fish processors in the Maldives face numerous obstacles in maximizing their economic benefits, despite their vital role in the fisheries sector. These challenges include limited access to markets beyond their island communities, lack of entrepreneurial skills, and reliance on middlemen. They also struggle with unfair payment conditions, hindering their ability to fully benefit from their crucial contributions to household income and the national economy.

The Solution

IPNLF Maldives' core solution is the development of "e-Dhumashi," an exclusive e-commerce platform for women fish processors. This platform provides direct access to distant markets, enabling women to engage in informed negotiations and receive payments without intermediaries. The project also includes training sessions on business management, digital literacy, and marketing, further empowering women to thrive in the digital marketplace.

SDG14 Targets:



Other relevant SDGs:



Why this matters

e-Dhumashi addresses the specific needs of women fish processors in the Maldives, providing them with the tools and skills to overcome the limitations they face in the traditional market system. By promoting digital literacy and financial independence, the project contributes to gender empowerment and sustainable economic growth in the fisheries sector. It also supports the sustainable use of fishery resources, ultimately benefiting the long-term food security of the region.

Replicate & scale up

e-Dhumashi offers a scalable solution for other coastal communities facing similar challenges. Its adaptability to local languages and diverse sectors, including agriculture and artisanal crafts, makes it particularly suitable for regions with remote communities. The platform's potential for collaboration with government bodies and NGOs further enhances its scalability and impact.



Results & impact

The project has achieved significant milestones in its mission to empower women fish processors. 25 women have benefited from the comprehensive training programs, gaining essential skills in digital literacy, business management, and food hygiene. e-Dhumashi has been successfully launched, featuring a Dhivehi language version to enhance accessibility. Although initial adoption was slower than anticipated, 25 women from six atolls have registered as suppliers on the platform.

Lessons learned

The project underscored the importance of adapting to the local context, including addressing cultural resistance to new technologies and engaging community leaders. Continuous platform refinement based on user feedback and the need for reliable logistics, particularly for inter-island trade, were also key takeaways. Tailored training programs and effective marketing strategies proved crucial for encouraging platform adoption and sustained usage.



Website: <https://ipnlf.org>

Contact: Ubi Raheema, ubaida.raheema@ipnlf.org
M. Shiham Adam, shiham.adam@ipnlf.org

ILUMINAR EL MAR: COMBATTING FISHERIES BYCATCH OF ENDANGERED MARINE SPECIES: A PILOT PROJECT TO TEST BYCATCH REDUCTION TECHNOLOGIES IN THE ECUADORIAN GILLNET AND LONGLINE FISHING FLEETS



Ocean
Innovation
Challenge

FUNDED BY: Norway | Sweden Sverige



- **Innovator:** Fundacion Mare Nostrum
- **Incubation date:** August 2023 to November 2024
- **Beneficiary country:** Ecuador
- **Financial support:** USD 187,528.41
- **Category:** NGO
- **Main partner:** The Leatherback Project

CLICK HERE



Introduction

The "Iluminar el Mar" project is pioneering the use of Bycatch Reduction Technologies (BRTs) in Ecuador's small-scale fisheries to protect endangered marine species. It focuses on testing the effectiveness of LED lights and electromagnetic devices in reducing the unintentional capture of sharks, sea turtles, and other megafauna in longline and gillnet fishing. This initiative aims to balance the economic needs of artisanal fishers with the conservation of endangered species, ensuring a sustainable future for both.

The Challenge

Ecuador's artisanal fisheries face a significant bycatch problem, with endangered species like sharks, sea turtles, and marine mammals often caught unintentionally. This not only threatens these vulnerable populations but also damages fishing gear and reduces catch efficiency, impacting the livelihoods of small-scale fishers. Traditional fishing practices and economic pressures often exacerbate this issue, making innovative solutions crucial for balancing conservation needs with economic realities.

The Solution

Mare Nostrum's core solution lies in the testing and implementation of BRTs, specifically LED lights and electromagnetic devices, in artisanal fishing gear. These technologies exploit differences in sensory capabilities between target fish species and endangered megafauna to reduce bycatch without significantly impacting the catch of commercially important species. The project also includes workshops and a human-centered design study to engage with fishing communities, ensuring the cultural fit and sustainable adoption of these technologies.

SDG14 Targets:



Other relevant SDGs:



Why this matters

Iluminar el Mar addresses the urgent need to protect endangered marine species while supporting the livelihoods of small-scale fishers in Ecuador. By promoting the use of BRTs, the project contributes to the sustainable management of fisheries and the conservation of marine biodiversity. It also aligns with several of the UN's Sustainable Development Goals, particularly those related to Life Below Water (SDG 14) and its targets for sustainable fisheries and marine conservation.

Lessons learned

Mare Nostrum has underscored the importance of adaptability and perseverance in navigating challenges such as project delays, unexpected audits, and changes in authorities. Open communication with various stakeholders, including government ministries and local fishers, has been crucial for successful project implementation. The team has also learned the importance of early engagement with fishers to ensure their cooperation and participation in the project.



Results & impact

The Iluminar El Mar project has achieved significant milestones in its mission to reduce bycatch. The project has completed 503 net sets with artisanal fishermen over 169 fishing trips, successfully testing the efficacy of LED lights in reducing bycatch. Their trials have demonstrated a significant reduction in the bycatch of sea turtles (58%), sharks (45%), cetaceans (73%), and mobula rays (50%). Additionally, the project has fostered collaboration with local small-scale fishers, empowering them with knowledge about safe release practices and responsible fishing techniques.

Replicate & scale up

The project's approach to bycatch reduction offers a replicable and scalable model for other regions facing similar challenges. The use of BRTs, coupled with community engagement and a sustainable business model, can be adapted to various contexts to promote the conservation of endangered marine species while supporting the livelihoods of small-scale fishers worldwide.



Website: <https://www.joinmnf.org/ilumina-el-mar/>

Contact: : Jeffrey Leblanc, jeff.leblanc@steevesmaples.co.uk
Callie Veelenturf, callie.veelenturf@gmail.com



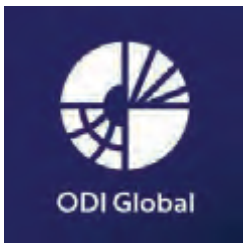
Ocean Innovation Challenge



ILLEGAL, UNREPORTED, AND UNREGULATED (IUU) FISHING AND UNSUSTAINABLE BEHAVIOUR OF DISTANT WATER FISHING FLEETS

FUNDED BY: Norway

Sweden Sverige



- **Innovator:** ODI Global
- **Incubation date:** July 2022 to May 2024
- **Financial support:** USD 249,537
- **Beneficiary countries:** Ecuador, Ghana, Senegal, Peru, Philippines
- **Category:** NGO

[CLICK HERE](#)



Introduction

The groundbreaking "**Fishy Business**" report is the first of its kind to delve into the impact of distant-water fishing (DWF) on the economies, employment, and well-being of five countries: Ecuador, Ghana, Peru, the Philippines, and Senegal. It fills a critical knowledge gap in fisheries by employing a unique methodology that combines fisheries expertise, data analytics, and deep learning tools to analyze registry data, satellite data, and economic, employment, and poverty indicators.

The Challenge

The study tackles the multifaceted challenges of unsustainable fishing, including gaps in research and a lack of a global vessel registry. This makes it difficult to track ownership and operations. Outdated data hinders effective policy interventions, while unequal power relations in fishing agreements often put developing nations at a disadvantage. Re-flagging of vessels further complicates the issue, creating opaque ownership structures that are hard to monitor.

The Solution

The "Fishy Business" report offers a comprehensive analysis of fishing fleets in the exclusive economic zones (EEZs) of five countries. Using innovative methods like deep learning and probabilistic statistics, the study exposes unsustainable practices and estimates their economic and social impacts. This transparency is crucial for promoting sustainable fishing and protecting marine biodiversity.

SDG14 Targets:



Other relevant SDGs:

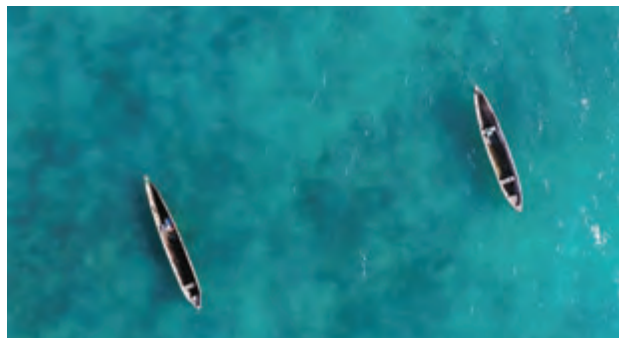


Why this matters

This study provides critical transparency in the fishing industry, enabling better management and oversight. By exposing unsustainable practices and missed opportunities for sustainable development and the long-term well-being of local fishing communities, it empowers governments, organizations, and communities to take action. The findings are a powerful call for reform, encouraging sustainable fishing and protecting our oceans.

Replicate & scale up

The study's methodology can be replicated to analyze other regions vulnerable to unsustainable fishing, particularly in the Global South. It can also be used to create a global registry for distant-water fishing fleets, promoting transparency and informed decision-making.



Results & impact

The "Fishy Business" report has made a significant impact, with over 300 downloads and mentions in prominent media outlets like the BBC and Mongabay. It has sparked important discussions with the Philippine government and facilitated collaboration with a renowned investigative journalist on illegal fishing. The project also includes a data repository and open deep-learning algorithms. Six briefing papers tailored to the five countries involved, as well as an international perspective paper, have been created. Country toolkits have been distributed to stakeholders and policymakers in each of the five countries.

Lessons learned

The project highlighted the importance of early stakeholder engagement, including strong support from UNDP country offices. Consistent communication with the UNDP OIC team proved essential for timely completion. To reach a wider audience, a more diverse range of outputs is recommended for future projects.



Website: <https://odi.org/en>

Contact: Silvia Harvey, s.harvey@odi.org
Rebecca Nadin, r.nadin@odi.org.uk



Ocean
Innovation
Challenge



UNIVERSAL FISHERY IDS: EXPANDING TRANSPARENCY, DATA FLOW, AND EQUITY FOR FISHERIES GLOBALLY



FUNDED BY:  Norway

 Sweden
Sverige



- **Innovator:** Sustainable Fisheries Partnership Foundation (SFP)
- **Incubation date:** July 2022 to July 2024
- **Financial support:** USD 250,000
- **Beneficiary countries:** Philippines; South Africa
- **Category:** NGO

[CLICK HERE](#)



Introduction

The **Universal Fishery IDs project** is revolutionizing the seafood industry by creating a standardized system for identifying and tracking fish products. This system enhances transparency and traceability, making it easier to monitor fishing practices and combat illegal activities. By promoting accountability and sustainability, the Universal Fishery IDs are transforming the seafood industry, ensuring that everyone has access to seafood that is produced responsibly.

The Challenge

The seafood industry faces a significant challenge in standardizing the identification of source fisheries. This lack of uniformity leads to inefficiency in supply chains and creates opportunities for illegal activities. As major buyers demand more information about their seafood sources, the need for a clear and globally agreed-upon standard becomes crucial. Without such a standard, traceability systems are compromised, and it becomes easier for bad actors to conceal information and mislead customers.

The Solution

To address this challenge, the Universal Fishery IDs project has established a global database of unique fishery traceability codes and IDs. This database combines six key components into unique identifiers for fisheries worldwide. By providing a standardized system for identifying and communicating about source fisheries, the project aims to improve transparency and traceability across the seafood industry.

SDG14 Targets:



Other relevant SDGs:



Why this matters

The Universal Fishery IDs project addresses critical issues within the seafood industry, such as mislabeling, illegal fishing, and unsustainable practices. By creating a standardized system for identifying and tracking fish products, the project promotes transparency and accountability, making it more difficult for bad actors to exploit the complexities of the seafood trade. This not only helps to protect the environment and ensure the sustainability of fish stocks but also safeguards the rights and livelihoods of those involved in the seafood industry.

Replicate & scale up

The Universal Fishery IDs project offers a highly replicable solution for enhancing transparency and traceability across various sectors. The standardized system and database can be adapted to different contexts and industries, promoting accountability and sustainability on a global scale. The project's success has paved the way for wider adoption and integration of the IDs into various platforms and systems, creating a powerful tool for combating illegal activities and promoting ethical practices worldwide.



Results & impact

SFP has achieved significant milestones in its mission to improve transparency and traceability in the seafood industry. The Global Record of Stocks and Fisheries (GRSF) has been successfully completed and made public, with over 5,000 validated fishery records and associated IDs. Both the small-scale blue swimming crab fishery in the Philippines and South Africa's semi-industrial yellowfin tuna/swordfish fishery have successfully integrated GRSF IDs into their operations. The Philippines Bureau of Fishery and Aquatic Resources has also adopted these IDs in its national management plan for blue swimming crab, using them to highlight key pilot areas. The project has also produced valuable assets, including a promotional video and a comprehensive business plan, to aid in the wider adoption of the IDs by the seafood industry.

Lessons learned

The project highlighted the importance of early stakeholder engagement, including strong support from UNDP country offices. Consistent communication with the UNDP OIC team proved essential for timely completion. To reach a wider audience, a more diverse range of outputs is recommended for future projects.



Website: <https://sustainablefish.org>

Contact: Braddock Spear, braddock.spear@sustainablefish.org
Kris Marchu, kris.marchu@sustainablefish.org



Ocean Innovation Challenge



VALUE RESCUE OF SMALL-SCALE FISHERIES IN MEXICO



FUNDED BY: Norway

Sweden Sverige



- **Innovator:** Smartfish Rescate de Valor AC
- **Incubation date:** : July 2022 to May 2024
- **Beneficiary country:** Mexico
- **Financial support:** USD 240,000
- **Category:** NGO

[CLICK HERE](#)



Introduction

The **Value Rescue Model (VRM)** is an innovative approach to transform the seafood value chain. It empowers small-scale fishing cooperatives in Mexico to adopt sustainable practices and access higher-paying markets. By focusing on quality, local processing, and product differentiation, the VRM enables these cooperatives to negotiate fairer prices and improve their economic viability. This model fosters marine conservation, socioeconomic development, and sustainable supply chains.

The Challenge

Small-scale fishers in Mexico often operate in a complex system that pressures them to prioritize catch volume over resource management and quality. This is compounded by the short-term costs of implementing sustainable fishing practices and the difficulties in enforcing those practices consistently. Additionally, inadequate infrastructure and limited market access leave fishers with few options but to sell their catch at low prices to intermediaries, further devaluing their products.

The Solution

The VRM aims to transform this complex system into a positive feedback loop. It promotes better supply chain efficiency, higher seafood quality through infrastructure investments, and improved food safety measures. By building business capacity within fishing organizations, the VRM strengthens its position in negotiations with buyers seeking sustainable products.

SDG14 Targets:



Other relevant SDGs:



Why this matters

The VRM directly addresses the UN's Sustainable Development Goal 14.B by empowering small-scale fishers to access better-paying markets and offering consumers environmentally sustainable, socially responsible, and fully traceable premium-quality seafood. It also addresses the inefficiencies and misaligned incentives of the complex small-scale fisheries value chain and serves as a model for effective and sustainable fishing practices.

Lessons learned

Transferring the VRM effectively involves hands-on training and ongoing support to local partner organizations, who also need the flexibility and capacity to adapt the model to their specific contexts. This project also confirmed the connection between access to preferential markets and sustainability. When buyer's demand the use of selective fishing gear, a traceability system, and compliance with best onboard practices, such market requirements can support the adoption of more sustainable practices by the fishers, as long as the purchase price adequately compensates for these changes.



Results & impact

The project has achieved significant successes:

- The annual volume of sustainable seafood sold has nearly tripled, increasing from 24.5 tons to 71.3 tons, generating 11.7 million Mexican pesos in revenue.
- The VRM has expanded significantly, going from 6 to 15 participating cooperatives, and the model itself has been transferred to 3 new NGOs.
- An impressive 771 individuals, 35% of which are women, have received training in fisheries optimization, business management, and value-added processing.
- Five new processing plants have been operationalized, leading to the creation of 52 new jobs, with women occupying 75% of those positions.
- The project has facilitated a significant increase in fisher landing prices, ranging from 7% to 228%, and cooperative earnings have risen by 44% to 55%.

Replicate & scale up

The VRM holds great potential for replication in other small-scale fisheries globally. This can be achieved through partnerships with NGOs and international organizations. SmartFish is actively working to transfer the model and build a community of practice to share knowledge and best practices.

Website: <https://www.smartfishac.org>

Contact: Cecilia Blasco, cecilia@smartfishac.org
Cristina Liberati, Cristina@smartfishac.org



Ocean
Innovation
Challenge



SPACE-BASED MARITIME SURVEILLANCE SYSTEM FOR FISHERIES MONITORING AND ANOMALY DETECTION

FUNDED BY: Norway

Sweden
Sverige



- **Innovator:** University of Surrey - Surrey Space Centre
- **Incubation date:** July 2022 to May 2024
- **Beneficiary country:** Mauritius
- **Financial support:** USD 249,769
- **Category:** Academe
- **Main partner:** Mauritius Research and Innovation Council

[CLICK HERE](#)



Introduction

The **NEREUS project** introduced an innovative tool that uses satellite data to monitor vast Exclusive Economic Zones (EEZs) threatened by Illegal, Unreported, and Unregulated (IUU) fishing. The tool includes offline components, such as dark heat maps, which identify areas at risk of IUU fishing, and operational components, like vessel trajectory prediction, that support monitoring and prosecution services when vessels display unusual behaviors. The NEREUS team has shown that investing in this tool has at least a 30-factor multiplier effect on return: every \$1 invested could return \$31 to the affected community if the information provided is acted upon.

The Challenge

The Western Indian Ocean is at risk of overfishing, particularly for tuna species. Overexploitation often occurs due to poor regulations and limited resources in developing countries, hindering their ability to prevent and tackle IUU fishing. Mauritius, with its growing IUU Fishing Risk Index, is particularly vulnerable. The index comprises 40 indicators, including the size of the EEZ, foreign vessel access, unknown vessel ownership, and lack of data sharing. Despite measures taken, IUU fishing remains a significant threat, requiring innovative approaches to estimate the problem's extent, support local authorities, and identify best management practices.

The Solution

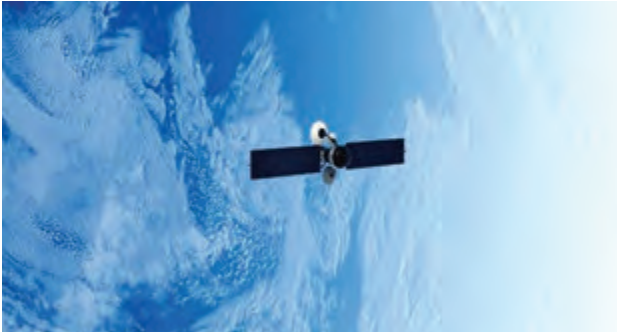
To address the IUU fishing threat, NEREUS developed a satellite-based monitoring tool that analyzes discrepancies between Synthetic Aperture Radar (SAR) and Automatic Identification System (AIS) data. This tool offers offline and operational components that improve awareness of IUU fishing risk areas, optimize patrolling services, enable prosecution, and provide stakeholders with user-friendly information.

SDG14 Targets:



Other relevant SDGs:





Why this matters

The NEREUS project tackles the urgent issue of illegal fishing and promotes sustainable fisheries management. It directly supports several of the UN's Sustainable Development Goals, particularly those related to protecting our oceans and ensuring responsible use of marine resources. By combating illegal fishing practices, NEREUS helps safeguard marine ecosystems and the livelihoods of those who depend on them. Its innovative approach not only aids in monitoring fishing activities but also empowers local communities and governments, and strengthens international cooperation towards a more sustainable future for our oceans.

Lessons learned

NEREUS emphasized stakeholder engagement and collaboration with the local community. Effective communication and addressing stakeholder concerns were crucial for project success. Building trust with authorities by demonstrating the tool's capabilities and economic benefits was essential for its acceptance and implementation.

Results & impact

NEREUS has created a valuable data storage system for Mauritius worth \$2.3 million, thanks to contributions from major space agencies. A capacity-building program has been developed and delivered to 150 delegates worldwide, including 50 from Mauritius. The project's outreach has been extensive, reaching over 1,800 people through 10 international events. Importantly, NEREUS has effectively evaluated the extent of IUU fishing in Mauritius and its economic impact. It also delivered an innovative tool that significantly improves maritime surveillance, particularly for fishing activities. NEREUS has demonstrated a strong return on investment, with the potential to return \$31 to the Mauritian community for every dollar invested.

Replicate & scale up

The NEREUS tool has strong potential for replication in other regions facing IUU fishing threats. Its open-source software and cost-effectiveness make it adaptable to various contexts. The project has identified several scaling-up options, including geographical expansion to other countries, thematic expansion into the financial and insurance sectors, and integration with more surveillance platforms.



Website: <https://www.surrey.ac.uk/surrey-space-centre>

Contact: Raffaella Guida, r.guida@surrey.ac.uk
Vickram Bissonauth, v.bissonauth@mruc.mu



Ocean
Innovation
Challenge



ENDING IUU FISHING IN PERUVIAN SMALL-SCALE FISHERIES THROUGH TRACEABILITY TECHNOLOGY



FUNDED BY: Norway

Sweden
Sverige



- **Innovator:** WWF Peru
- **Incubation date:** July 2022 to May 2024
- **Beneficiary country:** Peru
- **Financial support:** USD 190,000
- **Category:** NGO

CLICK HERE



Introduction

WWF-Peru introduced an innovative Electronic Catch Documentation and Traceability system (eCDT) named "TrazApp". Aligned with the Global Dialogue for Seafood Traceability (GDST) standards, TrazApp empowers fishers with real-time data about their catch and markets while also providing economic opportunities. It also streamlines the sailing permit process, enabling the Peruvian Navy (DICAPI) to issue digital certificates in real time.

The Challenge

Peru's fishing sector is a significant economic driver, generating substantial export revenue and employment opportunities. However, the industry faces challenges with IUU fishing due to a lack of documentation and monitoring. This informality creates opportunities for corruption and hinders sustainable fishing practices, especially given the limited government capacity for surveillance and enforcement.

The Solution

TrazApp offers a multi-pronged solution to these challenges. It provides a robust, transparent, and efficient eCDT system, digitizing and standardizing administrative procedures, which improves data management and combats corruption. It also complemented with remote electronic monitoring (REM) technologies to support end-to-end traceability, further enhancing the monitoring and enforcement of sustainable fishing practices. Additionally, TrazApp facilitates direct sales between fishers and processing plants through an integrated accounting system, improving fishers' access to markets and financial resources.

SDG14 Targets:



Other relevant SDGs:

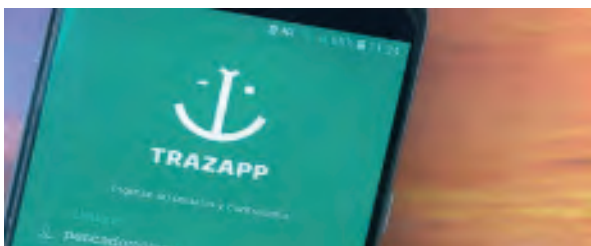


Why this matters

TrazApp is crucial for sustainable fishing in Peru, supporting UN Sustainable Development Goals 14.4 and 14.b by combating illegal fishing and empowering small-scale fishers. It enhances traceability in the seafood supply chain as well as the accuracy and accessibility of data for fisheries management, enabling better monitoring and informed decision-making. Additionally, integrating fishers into an accounting system will streamline direct sales to processing plants, increasing fishermen's income and promoting legal trade. TrazApp, through its REM, also helps monitor and mitigate species bycatch, protecting vulnerable species and evaluating the impact on the ecosystem.

Lessons learned

The project highlights the importance of inter-institutional collaboration to ensure project continuity despite political instability. Addressing technological limitations within fishing communities is crucial for successful technology adoption. Promoting internal transparency within fishing associations is also key to ensuring project success. Additionally, adapting the system based on user feedback, such as optimizing video collection and addressing concerns about camera presence, is essential for improving the system's effectiveness and acceptance.



Results & impact

TrazApp has significantly impacted the Peruvian fishing sector. It has facilitated direct sales between fishers and processing plants, generating \$648,915.46 USD in revenue and improving fishers' access to financial credit. As Peru's official digital system for issuing fishing permits, TrazApp has increased transparency and reduced corruption. To date, more than 600 fishers and 80 captaincy officers have been trained in the use of the electronic tool, generating more than 3,000 electronic fishing departure permits issued by TrazApp. The project has also improved data collection and management, with over 12,600 fishing trips registered and 42,230 tons of fish landings recorded. Additionally, TrazApp has enhanced the detection of protected species bycatch, such as sharks and rays, allowing for the identification of critical areas and the strengthening of conservation measures. It also promoted technological skills among fishers to monitor their activities and recording data.

Replicate & scale up

TrazApp's potential for replication and scaling is significant. Its focus on user-centered design, affordability, and open-source architecture makes it adaptable to various fisheries and value chains. The project has garnered interest from other countries and sectors, demonstrating its potential for widespread adoption.

Website: <https://www.wwf.org.pe/en>

Contact: José Alvarez, jose.alvarez@wwfperu.org
Aimee Leslie, aimee.leslie@wwfperu.org

BUILDING EQUITY AND LIVELIHOOD RESILIENCE BY APPLYING RENEWABLE ENERGIES IN INDONESIAN SMALL-SCALE TUNA FISHERIES

Ocean Innovation Challenge



FUNDED BY: Norway

Sweden Sverige



- **Innovator:** Yayasan IPNLF Indonesia
- **Incubation date:** July 2022 to October 2024
- **Financial support:** USD 250,000
- **Beneficiary country:** Indonesia
- **Category:** NGO
- **Main partner:** German Corporation for International Cooperation (GIZ) in Indonesia

[CLICK HERE](#)



Introduction

This project introduces an **innovative approach** to enhancing the livelihoods of small-scale tuna fishers in Indonesia by providing them with access to renewable energy and cold chain solutions. It focuses on deploying solar-powered ice-making machines, coupled with training programs in fish handling, safety at sea, and sanitation and hygiene. By improving the quality and value of their catch, the project aims to increase fishers' income and enhance their resilience to market shocks.

The Challenge

Small-scale fisheries in Indonesia, and remote communities around the world, often lack access to electricity, technical knowledge on food safety and fish handling, and cold chain facilities. This results in significant losses in the value of their catch, particularly for high-value species like yellowfin tuna, undermining their livelihoods and economic potential as well as increasing amounts of wasted fish. Additionally, many solar powered ice makers require their battery to be replaced every 3-5 years at great cost, sometimes meaning the machine must be decommissioned after a short period.

The Solution

Yayasan IPNLF's solar ice maker addresses these challenges by providing an innovative, off-the-grid, solar-powered ice-making machine to a remote fishing community in Kawa, Seram, East Indonesia. The machine uses innovative energy storage solutions which prolong the lifetime of the battery to an estimated 12-15 years. This is complemented by upskilling fishers through workshops and training in fish handling, cold chain management, and safety at sea.

SDG14 Targets:



Other relevant SDGs:



Why this matters

This project promotes sustainable fishing practices while also addressing the socioeconomic needs of small-scale fishers. By providing access to renewable energy and cold chain solutions, the project helps to improve the quality and value of the catch, leading to increased income and livelihood resilience for fishers. Additionally, the project's focus on capacity building empowers fishers with the knowledge and skills to manage and commercialize their facilities, ensuring the long-term sustainability of the initiative.

Replicate & scale up

The project has demonstrated the feasibility of deploying solar-powered ice-making facilities in remote fishing communities. The project's model can be replicated and scaled up to benefit other small-scale fisheries in Indonesia and beyond, promoting sustainable fishing practices and enhancing the livelihoods of fishers.



Results & impact

In the innovation's mission to empower small-scale tuna fishers in Indonesia, over 80 fishers have received training and certifications in fish handling, safety at sea, and sanitation and hygiene. The project also successfully installed a solar-powered ice-making machine in Kawa village, reducing reliance on fossil fuels and increasing the quality and value of tuna. This has led to improved food safety standards and greater market opportunities for the fishers. The solar-powered ice-making machine has proven to be highly efficient, producing 1 ton of ice per day while running exclusively on solar energy. This has not only reduced the village's reliance on fossil fuels but has also nearly doubled ice production capacity. Additionally, the machine's operation has eliminated the need for approximately 1,470 plastic bags per ton of ice produced, contributing to a reduction in plastic waste.

Lessons learned

The project has highlighted the importance of effective communication and clear responsibilities in multi-party projects. The project has also underscored the impact of how selecting partners that are well-informed, diverse and located near the remote community can improve the wider impact of a project and mitigate challenges along the way.



Website: : <https://ipnlf.org>

Contact: : Shannon Hardisty, shannon.hardisty@ipnlf.org
Maskur Tamanyira, maskur.tamanyira@ipnlf.org



Ocean
Innovation
Challenge



MAPPING AND MONITORING OF ECOSYSTEMS AT SCALE WITH COPERNICUS SENTINEL-2 IMAGERY - A TROPICAL SYSTEM APPLICATION



FUNDED BY: Norway

Sweden
Sverige



- **Innovator:** DHI Water & Environment (M) Sdn. Bhd.
- **Incubation date:** February 2023 to October 2024
- **Beneficiary country:** Malaysia
- **Financial support:** USD 240,978
- **Category:** Private Sector

[CLICK HERE](#)



Overview

DHI has developed MCSAV, a web-based interactive platform that uses Copernicus Sentinel-2 satellite data and machine learning to map and monitor the distribution and quality of marine habitats. The platform is designed to be accessible to a wide range of users, including those with limited experience in satellite data analysis. MCSAV provides a cost-effective tool for generating regular, low-cost, satellite-based marine coastal habitat maps across large areas. This technology offers a practical solution for effective marine resource management and conservation efforts.

The Challenge

Effective marine resource management requires accurate data on the distribution and quality of essential marine habitats. Traditional data collection methods in the marine environment are often expensive and logistically challenging due to weather conditions, the vast areas that need to be covered, and the specialized skills required. This lack of accessible data hinders both monitoring and regulation, making marine conservation efforts lag behind those for terrestrial and freshwater ecosystems. There is an urgent need for a cost-effective tool that can provide a comprehensive overview of nearshore coastal marine resources to address increasing pressures on marine resources and their associated livelihoods.

The Solution

Coupling satellite remote sensing technology and machine learning, DHI has developed a web-based interactive platform to address the above challenge. Using data from the Copernicus Sentinel-2 satellites and information collected by DHI and local youth communities working with our partners, a platform has been developed which can be used by a wide range of stakeholders in identifying, mapping and monitoring of marine habitats, primarily Mangrove, Coral, and Submerged Aquatic Vegetation, hence the platform's name MCSAV. It is a cloud-based interactive technology platform that is aimed at providing regular (at a maximum every 5 days and as far back as 2016/2017) and low-cost satellite-based marine coastal habitat maps across large areas that cannot be assessed and monitored any other way.

SDG14 Targets:



Other relevant SDGs:



Why this matters

MCSAV aims to promote regional and local sustainability by providing a science-based platform for the planning, management, and monitoring of marine resources. Its primary goal is to raise awareness and empower users—from government bodies to local communities—by offering reliable, credible data on the status of marine resources. The most significant impact is expected to come from government bodies using MCSAV to report on key ecological indicators, e.g., mangroves, coral reefs and submerged aquatic vegetation.

Lessons learned

The project has highlighted the challenges of mapping using optical satellite images in tropical environments due to persistent cloud cover and complex marine habitats. DHI has addressed these challenges by working closely with partners to collect field data to support model development, ensuring high accuracy in the final results. The project also emphasized the importance of stakeholder engagement, particularly with government stakeholders, to address concerns about data management and sharing and promote the adoption of MCSAV for marine resource planning and management.

Replicate & scale up

DHI plans to replicate and scale up MCSAV to new geographical areas, including a reef complex 60 km west of Semporna and regions in Scandinavia and the Mediterranean. They aim to promote the platform worldwide through various channels and engage more users and subscribers. Committed to continuously refining MCSAV, DHI will incorporate multitemporal analysis, additional data layers, and new features for comparing habitat maps across time, and integrate higher resolution imagery and time series data for more precise mapping and analysis.

Results & impact

The MCSAV platform has achieved significant results in mapping and monitoring key marine habitats. It has enabled the accurate mapping of 12 islands and their surrounding areas in Semporna, Sabah, Malaysia, using satellite imagery and ground truth data. The platform has been successfully pilot-tested, with error assessments conducted through validation against field-collected data. MCSAV is currently the only platform equipped to cover a broad set of biotopes/habitats for tropical environments, including marine vegetation, corals/rubble, and mangrove forests, using a 'Human in the Loop' approach that allows for the integration of local knowledge.



Website: <https://www.dhigroup.com/>
Contact: Malinda Auluck, mau@dhigroup.com

EXOTIC PUFFERFISH LEATHER PRODUCTS

Ocean
Innovation
Challenge



FUNDED BY: Norway | Sweden Sverige



- **Innovator:** Mersea Marine Consulting
- **Incubation date:** February 2023 to October 2024
- **Beneficiary country:** Türkiye
- **Financial support:** USD 150,000
- **Category:** Private Sector

CLICK HERE



Overview

Mersea has developed a unique approach to exotic leather production, crafting high-quality products from the skins of invasive pufferfish. This not only offers a sustainable alternative to traditional leather options but also helps to control the pufferfish population, which has been wreaking havoc on marine ecosystems. Their innovative process involves sustainably harvesting pufferfish, carefully tanning the skins, and crafting them into exquisite accessories. This initiative not only addresses an ecological challenge but also empowers local communities and contributes to the growth of the blue economy.

The Challenge

The invasive silver-cheeked toadfish pufferfish poses a significant threat to marine ecosystems, public health, and the livelihoods of small-scale fishers in the Eastern Mediterranean. Traditional management methods have proven inadequate in controlling this species, which disrupts local ecosystems, damages fishing gear, and depletes fish stocks. The pufferfish's toxicity also poses a health risk to humans, further complicating its management.

The Solution

Mersea's innovation aims to transform the invasive pufferfish from an ecological and health burden into a valuable resource. By creating a market for pufferfish leather, they incentivize fishers to actively catch the species, providing an additional income source while controlling the population. This approach not only addresses the ecological challenge but also contributes to the local economy and promotes sustainable practices.

SDG14 Targets:



Other relevant SDGs:



Why this matters

The project directly contributes to a healthier marine environment and a more sustainable ocean economy. By addressing the invasive pufferfish problem, the project helps protect marine ecosystems and the livelihoods of small-scale fishers. The creation of economic opportunities, particularly for marginalized women, promotes social sustainability and contributes to the growth of the blue economy.

Lessons learned

Having a thorough marketing plan is critical in conservation-based initiatives. Regular staff accountability checks have proven essential for maintaining team effectiveness, and choosing partners aligned with the project's mission and values is crucial. Managing a fishery based on a wild species like pufferfish presents unique challenges, from unpredictable fish behavior to the impact of fishing on spawning locations. Maintaining skin freshness is vital for high-quality leather, requiring immediate skinning and proper handling. The decline of small-scale fisheries poses a challenge for future sourcing, highlighting the need for competitive pricing and incentives to encourage fisher participation. Building product trust and finding target customers requires deep market understanding, agile marketing strategies, and creative outreach.



Results & impact

Mersea's pufferfish leather project has achieved significant results. They have successfully removed over 12,500 pufferfish from the marine ecosystem, creating the world's first regulated pufferfish fishery and providing a sustainable method for controlling the pufferfish population. They have also developed an innovative tanning process that transforms pufferfish skins into high-quality, eco-friendly leather. This project empowers local fishers by providing them with an additional income source and involving them in the sustainable management of the pufferfish population. Mersea has created employment opportunities for 70 small-scale fishers in pufferfish collection and for two marginalized women in the design studio, where they are trained in leather production and product development. Their efforts have generated broader industry interest in sustainable fashion and eco-positive materials.

Replicate and scale up

Mersea plans to share their commercialization knowledge with European partners working on invasive species valorization. They are investigating scaling opportunities to collect pufferfish skins from Greece and Northern Cyprus. They also plan to scale brand awareness through targeted ads, conferences, and expos, and scale product diversity through collaborations and new product lines. Mersea aims to scale sales platforms by adding more online and physical stores and using AI for networking and marketing. They are seeking guidance from fashion mentors and branding leaders to scale industry know-how and effective marketing strategies.



Website: <https://mersea.org>

Contact: Aylin Ulman, merseamed@gmail.com



Ocean Innovation Challenge



SEA SUCCESS



FUNDED BY: Norway

Sweden Sverige



- **Innovator:** IUCN
- **Incubation date:** February 2024 to December 2024
- **Financial support:** USD 249,906.16
- **Beneficiary countries:** Thailand, Bangladesh
- **Category:** NGO
- **Main partner:** Open Communications for The Ocean (OCTO)

CLICK HERE



Overview

The SEA Success project, implemented by IUCN, focuses on facilitating knowledge exchange and solution scaling for Marine Protected Areas (MPAs). It addresses the challenge of connecting practitioners with existing knowledge and solutions to improve MPA management effectiveness. The project uses a three-step approach: 'Scoping' site-specific challenges, 'Exchanging' knowledge on solutions, and 'Activating' support for implementation. Global tools and networks, including the IUCN Green List, PANORAMA solutions, and OCTO online communities, are used to facilitate knowledge exchange and solution transfer.

The Challenge

Most MPAs worldwide face management challenges, and practitioners often struggle to find the specific knowledge and solutions they need. Existing knowledge and networks are not always readily accessible or tailored to specific MPA needs. This lack of access to relevant solutions and knowledge exchange opportunities hinders effective MPA management and conservation efforts. There is a need for a mechanism that effectively connects practitioners with existing knowledge and facilitates solution transfer to improve MPA management and governance.

The Solution

The innovative and scalable SEA Success initiative will assist Marine Protected Areas (MPAs) in finding and utilizing the information necessary to address their unique challenges. SEA Success has three key components. First, it involves scoping site-specific challenges faced by marine practitioners striving to enhance the effectiveness of existing MPAs. Second, it facilitates the exchange of information on overcoming these challenges by drawing on the experiences of peers, fostering mentoring relationships that support the implementation of targeted actions. Finally, the initiative focuses on activating and potentially providing additional direct, technical, political, and financial support, as well as capacity development, to implement effective solutions to these challenges and ensure sustained success over the long term.

SDG14 Targets:



Other relevant SDGs:



Why this matters

By matching robust identification of MPA challenges in a highly inclusive, consultative, site-based process with targeted knowledge provision drawing on global networks, expertise and examples - the project made a direct contribution to SDG 14.5 on advancing coastal and marine protected areas.

Replicate & scale up

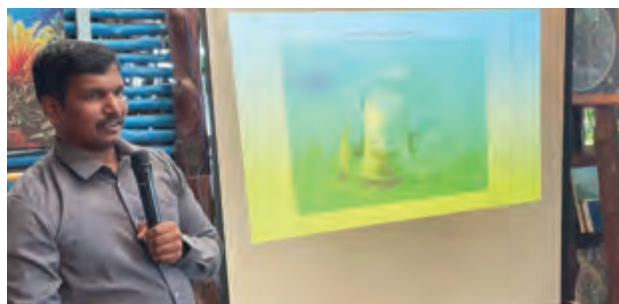
The project plans to replicate and scale up its approach by further automating and personalizing knowledge discovery through virtual platforms and e-networks like PANORAMA and OCTO. They also plan to create positions for full-time "matchmakers" who can facilitate knowledge exchange and solution transfer. A fund to support practitioners in organizing their knowledge exchanges is also being considered. This fund could potentially support local champions who can effectively utilize the knowledge shared during exchanges.

Lessons learned

SEA Success demonstrated the strong willingness of PANORAMA and OCTO members to actively participate in knowledge sharing activities. The importance of detailed information on local contexts, challenges, and knowledge needs was highlighted for effective matchmaking. The project successfully showcased the value of peer-to-peer exchanges between practitioners, recognizing that "everyone is an expert". This approach facilitated valuable knowledge transfer and collaborative learning, moving away from the traditional model of one-way knowledge provision by "leading global experts". Virtual calls were effectively used to assess the transferability of solutions.

Results & impacts

SEA Success successfully engaged two partner sites in Asia: Saint Martin's Island in Bangladesh and the Hat Chao Mai - Ko Libong Seascape in Thailand, facilitating the identification of priority challenges and potential solutions through stakeholder consultations and gap analyses. The project fostered valuable South-South and South-South-Triangular collaboration and learning on marine protection solutions, leveraging the networks of PANORAMA and OCTO to connect solution providers from various developing countries with Thai and Bangladeshi MPA partners for virtual exchanges and site visits. Around 30 knowledge holders from other MPAs were engaged in knowledge exchange, with 15 participating in intensive bilateral exchanges with partner site stakeholders. Multi-day in-person workshops and exchange learning visits were organized, engaging a total of around 70 stakeholders. OCTO also organized over five well-attended global webinars for marine practitioners, further enhancing knowledge sharing. A key outcome was the establishment of a Community of Practice (CoP) involving key MPA stakeholders in both countries, serving as a platform for knowledge exchange, peer-to-peer learning, and collaborative problem-solving.



Website: <https://iucn.org>

<https://panorama.solutions/en>

Contact: Marie FISCHBORN, Marie.FISCHBORN@iucn.org



Ocean
Innovation
Challenge



ENSURING COMMUNITY ROLES IN COMPLEX MULTIPLE USE AREAS IN MADAGASCAR

FUNDED BY:  Norway

 Sweden
Sverige

THE
UNIVERSITY
OF RHODE ISLAND



- **Innovator:** University of Rhode Island (URI)
- **Incubation date:** February 2023 to December 2024
- **Beneficiary country:** Madagascar
- **Financial support:** USD 248,255
- **Category:** Academe

[CLICK HERE](#)



Overview

The University of Rhode Island, Coastal Resources Center, has developed an innovative approach to Marine Spatial Planning (MSP) in Madagascar, prioritizing community engagement and empowerment. Their initiative focuses on building the capacity of coastal communities to actively participate in the MSP process, ensuring their voices are heard in the planning and management of marine resources. This approach not only promotes equitable and inclusive decision-making but also enhances the effectiveness of marine conservation efforts. By integrating community perspectives and knowledge into the MSP framework, the project aims to create a sustainable balance between marine conservation, economic development, and community well-being.

The Challenge

Madagascar, a biodiversity hotspot, relies heavily on Marine Protected Areas (MPAs) and Locally Managed Marine Areas (LMMAs) for conservation. However, only 1-2% of Madagascar's EEZ is under formal MPA protection, with most coastal areas being multiple-use zones. Weak law enforcement, competing uses, and ineffective management limit effective marine biodiversity conservation. There's an urgent need to empower communities and integrate them into the MSP framework to enhance conservation and ensure equitable benefits.

The Solution

URI's MSP framework tackled these challenges through three interconnected outcomes. First, it focused on community engagement by empowering coastal communities to actively participate in MSP consultations, ensuring their rights, knowledge, and priorities were at the core of decision-making processes. Second, the framework established an operational MSP for Nosy Be, incorporating legal frameworks, participatory mapping, and spatial planning tools to mediate intersectoral conflicts and guide the sustainable use of marine resources. Lastly, it enhanced marine conservation by improving the effectiveness of MPAs and LMMAs, fostering socio-economic benefits, and promoting biodiversity conservation through coordinated management efforts.

SDG14 Targets:



Other relevant SDGs:



Why this matters

This locally adapted MSP approach bridges the gap between conservation goals and community needs. By positioning communities as stewards of marine resources, the innovation supports sustainable practices that align with Madagascar's national blue economy strategies, offering a replicable model for other regions. This project also contributes directly to achieving Sustainable Development Goal 14.5 (marine conservation).

Results & impact

The project successfully mobilized community associations in Nosy Be, including LMMAs, fisher associations, women's groups, and youth, to form a learning network for Marine Spatial Planning (MSP). Competency-based training programs were conducted, empowering communities with the skills and knowledge to engage in MSP processes, covering governance, stakeholder engagement, management, planning, communication, and advocacy. As a result, community representatives actively contribute to the MSP Steering Committee, providing feedback and ensuring the MSP process is inclusive and responsive to local needs. The local project team has been invited to other parts of Madagascar and the region to share their experiences and insights on replicating the project's success.

To mark the closing of the innovation project, the MSP was successfully turned over in November 2024 to the local authorities and communities of Nosy Be. The 15-year strategic document will guide the sustainable use of marine resources in the region, setting priorities for harmonizing environmental conservation, economic development, and community welfare.

Replicate and scale up

The project plans to replicate its approach by extending the Nosy Be MSP model to other regions, starting with the Menabe region. They will leverage existing networks, such as MIHARI and BATAN communities of practice, for knowledge transfer and capacity building. The scaling plan also includes developing user-friendly tools and software for participatory mapping and integrating economic partnerships between the private sector and local communities. The team is also considering preparing a toolkit to aid in the replication of the project's success elsewhere.

Lessons Learned

URI highlighted the importance of addressing social sustainability concerns by empowering communities and ensuring their active involvement in the MSP process. This includes providing clear explanations, building community confidence, and strengthening community cohesion. Additionally, the project has emphasized the need to recognize and value all existing data and provide partners with training in data management.



Website: <https://web.uri.edu/crc>

Contact: Sarah Gaines, sgaines@uri.edu



Ocean
Innovation
Challenge



ACTIVATING NATURE-BASED TOURISM CAPACITY IN THE BAJONE SANCTUARY THROUGH COMMUNITY ENGAGEMENT

FUNDED BY: Norway

Sweden
Sverige



- **Innovator:** ACAMBIDEC
- **Incubation date:** May 2024 to November 2024
- **Beneficiary country:** Mozambique
- **Financial support:** USD 39,940.38
- **Category:** Non-Governmental Organization (NGO)

[CLICK HERE](#)



Overview

ACAMBIDEC successfully activated nature-based tourism capacity in the Bajone Sanctuary by engaging the local community and installing critical infrastructure like a solar power plant. They curated a collection of tourist attractions, showcasing the region's natural, cultural, and historical sites, and making them accessible through digital and print catalogues. Their training programs empowered the community with skills in site interpretation, environmental protection, and tourism management. This initiative not only improved the infrastructure and resources for eco-tourism but also fostered community ownership and economic opportunities linked to tourism.

The Challenge

The Bajone Sanctuary required sustainable tourism development that preserves cultural and ecological values while encouraging local participation and economic opportunities.

The Solution

ACAMBIDEC adopted a participatory approach, working with community members to curate tourist attractions, showcasing the region's natural, cultural, and historical sites. They also built a solar power plant to provide clean energy for the Cafassa Touristic Complex.

SDG14 Targets:



Other relevant SDGs:



Why this matters

This project not only enhanced the infrastructure and resources for eco-tourism but also promoted community ownership and economic opportunities linked to tourism, ensuring the long-term sustainability of the Bajone Sanctuary.

Support the project

Interested parties could assist ACAMBIDEC by providing funding for upscaling the project's impact, such as expanding the solar power plant or replicating the model in other tourism sites. Support could also include replicating the solar energy model in other locations within the Bajone Sanctuary or in similar ecotourism projects elsewhere. Additionally, funding could be used to improve infrastructure, such as trails, visitor centers, and sanitation facilities, enhancing the overall tourist experience and promoting sustainable tourism development in the region.



Main outputs and achievements

ACAMBIDEC's work resulted in the installation of a micro solar power plant at the Cafassa Touristic Complex, providing clean and reliable energy, reducing reliance on diesel generators, and enhancing the tourist experience. They successfully curated Bajone's tourist attractions, showcasing the region's natural, cultural, and historical sites, and integrating them into digital and print tourism catalogues, increasing visibility and attracting potential tourists. Their training programs for the local community, which included training in site interpretation, environmental protection, and tourism management, empowered community members with skills to participate in and benefit from the tourism sector. They also conducted training programs specifically designed to empower women and youth to actively participate in the tourism sector, highlighting their role in promoting cultural tourism, guiding, hospitality services, and small business development linked to tourism.

Lessons learned

ACAMBIDEC learned that community engagement and ownership are essential for the success and sustainability of eco-tourism projects. Providing targeted training to local communities empowers them to participate in and benefit from the tourism sector. Integrating curated attractions into existing platforms enhances their visibility and attracts potential tourists.



Website: [linkedin.com/in/acambidec](https://www.linkedin.com/in/acambidec)

Contact: Fialho Nehama, fialho.nehama@gmail.com



Ocean
Innovation
Challenge

TRAINING 20 WOMEN FOR NET MENDING, CREATING LIVELIHOOD AND IMPROVING INCOMES



FUNDED BY:  Norway

 Sweden
Sverige



- **Innovator:** African Development Trust (ADT)
- **Incubation date:** May 2024 to November 2024
- **Beneficiary country:** Somalia
- **Financial support:** USD 40,000
- **Category:** Non-Governmental Organization

[CLICK HERE](#)



Overview

The **African Development Trust (ADT)** successfully trained 20 Somali women in net mending and making, thereby promoting sustainable fishing practices and creating economic opportunities for vulnerable communities.

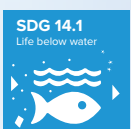
The Challenge

Coastal communities in Somalia faced challenges with maintaining and replacing costly fishing nets, while women were excluded from economic activities in the fishing industry.

The Solution

The project provided comprehensive training to 20 women in net mending and making, equipping them with essential skills to participate in the fishing economy.

SDG14 Targets:



Other relevant SDGs:



Why this matters

This initiative not only addressed the shortage of fishing nets but also empowered women by equipping them with valuable skills and creating income-generating opportunities.

Lessons learned

Key Lessons learned from the project include the importance of integrating environmental education into the training to increase awareness about sustainable fishing practices. The project also highlighted the potential of social media to amplify community efforts and expand the reach of the project. Finally, the project demonstrated the value of providing skills beyond the immediate training, enabling participants to explore diverse income-generating opportunities.



Main outputs and achievements

The project successfully trained 20 women in net mending and making through theoretical and practical sessions. The women gained expertise in crafting various types of fishnets, including those for sharks and lobsters. This initiative not only equipped women with technical skills but also addressed the local shortage of fishing nets. The women produced 21 fishnets during the training, and they now have the capacity to produce 20 fishnets monthly, ensuring a sustainable solution to the ongoing demand. This project has not only enhanced women's skills and knowledge but also improved their financial income and reduced the cost of fishing nets by 60%.

Support the project

Potential partners could support ADT by providing funding to scale up the project, enabling the training of more women in net mending and making, and extending the initiative to other coastal communities in Somalia facing similar challenges with fishing net maintenance and replacement. Funding could also be used to support the women in establishing their own net-making businesses, providing them with the resources to purchase equipment and materials, and facilitating access to markets for their products.



Contact: Ahmed Herzi africandt@gmail.com
Website: www.africandt.org



Ocean
Innovation
Challenge



RECYCLING SARGASSUM WASTE INTO ENVIRONMENTAL AND SOCIAL GOOD TO BENEFIT SMALL FARMERS IN JAMAICA

FUNDED BY: Norway

Sweden
Sverige



- **Innovator:** The AgriShare Company Limited
- **Incubation date:** May 2024 to November 2024
- **Beneficiary country:** Jamaica
- **Financial support:** USD 40,000
- **Category:** Private Sector

[CLICK HERE](#)



Overview

AgriShare successfully demonstrated a circular blue economy solution by recycling sargassum waste into organic fertilizer and biogas, benefiting small farmers in Jamaica.

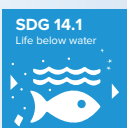
The Challenge

Sargassum seaweed waste impacted coastal tourism and livelihoods, while soil degradation and lack of cold storage affected small farmers in Jamaica.

The Solution

AgriShare developed a pilot digester to recycle sargassum into organic fertilizer and biogas, providing valuable resources to small farmers.

SDG14 Targets:



Other relevant SDGs:



Why this matters

This innovation not only addresses the sargassum waste problem but also tackles soil degradation and the lack of cold storage, contributing to a more sustainable farming system.

Support the project

Potential partners could provide funding to scale up the project and implement a network of AgriShare's innovative sargassum digesters for powering cold storage units and providing organic fertilizer to benefit small farmers across Jamaica. Support could also include funding research into new sargassum mixes for fertilizer production, exploring the use of different organic waste materials in combination with sargassum to optimize fertilizer composition and nutrient content.



Main outputs and achievements

The project successfully implemented a small-scale pilot digester that processed 4 tons of organic waste weekly to produce 25 m³ of biogas and 200 kg of organic fertilizer daily. It supplied organic fertilizer to 20 small farmers in the coastal small farming community of Braco, Trelawny, improving soil management and sustaining agriculture. Additionally, it developed an affordable cold storage unit powered by biogas to benefit the Braco farmers and neighboring small market vendors, reducing crop loss and increasing profit potential for farmers.

Lessons learned

The project demonstrated that a 30% sargassum mix with food waste and cow manure can produce a marketable fertilizer product that is high in nitrogen, sodium, calcium, and magnesium with fairly low metal content. It also highlighted the critical need for affordable cold storage among small farmers in Jamaica.



Contact: Carol Lue agrishareja@gmail.com
Website: www.agrishareja.com



Ocean
Innovation
Challenge



THE BLUEBOT PROJECT



FUNDED BY:  Norway

 Sweden
Sverige



- **Innovator:** Bajan Digital Creations Inc
- **Incubation date:** May 2024 to November 2024
- **Beneficiary country(ies):** Barbados
- **Financial support:** USD 39,790
- **Category:** Private Sector

[CLICK HERE](#)



Overview

Bajan Digital Creations Inc. successfully implemented The BlueBOT Project, using underwater robots and AI to enhance understanding of reef biodiversity and provide virtual diving experiences.

The Challenge

Traditional reef monitoring methods are expensive and time-consuming, and there is a need for affordable and continuous observation of reef environments.

The Solution

The project trained local community members to pilot underwater robots, providing virtual diving services and generating revenue for continuous reef monitoring.

SDG14 Targets:



Other relevant SDGs:



Why this matters

This project not only provides valuable data for reef management but also creates economic opportunities and engages the community in marine conservation.



Support the project

Potential partners could provide funding for scaling up the project, enabling the training of more community members in piloting underwater robots and expanding virtual diving services to reach a wider audience in the tourism and education sectors. Support could also include funding the development of AI-powered reef monitoring tools, enhancing the project's capacity to analyze video data and extract valuable insights for reef management and conservation efforts.

Main outputs and achievements

The project successfully trained 10 local residents to pilot underwater robots, impacting 10 direct beneficiaries and 150 indirect beneficiaries. It established a baseline video dataset of nearly 100 samples and extracted datasets of 18 organism profiles for 4 nearshore sites. Two 17-year-olds were recruited to provide ROV and data analysis services.

Lessons learned

Combining technical training with practical experience is key to the success of the program. Clear communication and accredited certification can enhance the program's attractiveness. Adapting the program to fit participants' schedules is important for wider participation and engagement.



Contact: Antonio Hollingsworth, bajandigitalcreations@gmail.com
Website: <https://www.thebluebotproject.com>



Ocean Innovation Challenge



GREEN-SOLUTIONS TO COMBAT COASTAL EROSION – A COMMUNITY-BASED APPROACH TO PROTECT AND RESTORE SANDY BEACHES

FUNDED BY: Norway

Sweden Sverige



- **Innovator:** Coral Garden Conservation
- **Incubation date:** May 2024 to November 2024
- **Beneficiary country:** Mauritius
- **Financial support:** USD 39,946
- **Category:** Non-Governmental Organization (NGO)

[CLICK HERE](#)



Overview

Coral Garden Conservation successfully implemented green solutions to combat coastal erosion by restoring sandy beaches in Mauritius, thereby protecting critical marine ecosystems and local livelihoods.

The Challenge

Coastal erosion in Mauritius threatened biodiversity, community livelihoods, and tourism revenues, with conventional solutions proving inadequate.

The Solution

The project focused on planting native beach morning glory (*Ipomoea pes-caprae*) to stabilize the coastline and restore coastal habitat, engaging the local community in restoration efforts.

SDG14 Targets:



Other relevant SDGs:



Why this matters

This initiative not only protects shorelines and enhances biodiversity but also offers tangible benefits to coastal communities by creating employment opportunities and promoting sustainable coastal management.

Lessons learned

The project highlighted the significance of community engagement and flexibility in project implementation as crucial factors for success. It also confirmed the effectiveness of nature-based solutions, such as planting native vegetation, in addressing coastal erosion sustainably. Additionally, the project underscored the importance of capacity building and public awareness campaigns in enhancing community ownership and understanding of conservation efforts.



Main outputs and achievements

The project successfully restored 0.22 hectares of beaches across five vulnerable sites, planting over 19,000 native plants with an 81% plant survivorship rate. It also trained 25 local participants in coastal restoration techniques.

Support the project

Potential partners could provide funding for scaling up the project to other erosion-prone beaches in Mauritius, enabling the restoration of more coastal areas and the protection of critical marine ecosystems and local livelihoods. Support could also include funding research and monitoring activities, such as beach profiling surveys and environmental monitoring, to assess the long-term impact of the restoration efforts and inform adaptive management strategies. Additionally, funding could be used to expand community training programs, empowering more local participants with skills in coastal restoration techniques and promoting sustainable coastal management practices.



Contact: Gilbert Ricot, cgcmauritius@gmail.com

Website: <https://coralgardenconservation.org>



Ocean
Innovation
Challenge

ENHANCING COASTAL COMMUNITY LIVELIHOODS THROUGH SUSTAINABLE OCTOPUS FISHERY MANAGEMENT

FUNDED BY: Norway

Sweden
Sverige



- **Innovator:** Eco Marine Consultants Ltd (EMCL)
- **Incubation date:** June 2024 to November 2024
- **Beneficiary country(ies):** Mauritius
- **Financial support:** USD 39,927
- **Category:** Private Sector

[CLICK HERE](#)



Overview

Eco Marine Consultants Ltd successfully enhanced coastal community livelihoods by promoting sustainable octopus fishery management in Mauritius. They developed and deployed 630 eco-friendly artificial octopus dens across four project sites, mitigating reef damage and promoting sustainable fishing practices. The project not only benefited the marine ecosystem but also empowered 30 beneficiaries from five coastal villages. These individuals were trained in den construction, deployment, and maintenance, creating alternative livelihood opportunities and promoting gender equality in the fishing industry.

The Challenge

Coastal communities in Mauritius face challenges related to environmental degradation of marine ecosystems, unsustainable fishing practices, socio-economic vulnerability, and limited awareness and participation in marine conservation initiatives.

The Solution

The project implemented a community-based solution that aligns with international best practices and local needs. Its primary objectives were to develop and deploy eco-friendly artificial octopus dens, empower coastal communities through training, promote responsible fishing practices, and establish partnerships with local stakeholders.

SDG14 Targets:



Other relevant SDGs:



Why this matters

The project emphasizes the need for systemic shifts toward sustainable practices that prioritize community participation and ecological resilience. It aims to restore marine ecosystems, enhance fisher livelihoods, and serve as a replicable model for other coastal regions facing similar challenges.

Support the project

Potential partners, donors, or supporters could support the project by providing funding for expanding the project to new coastal communities and deploying more artificial dens, conducting further research on octopus habitat restoration and the effectiveness of artificial dens, implementing ongoing monitoring and evaluation programs to track the project's impact, and developing educational and outreach programs to promote sustainable fishing practices and marine conservation.

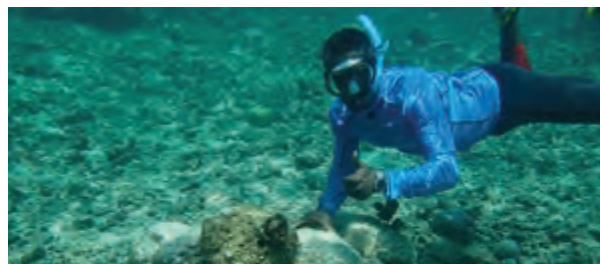


Main outputs and achievements

Through the project, 630 artificial dens were deployed, and 30 beneficiaries were trained in den construction, deployment, and maintenance. The project promoted gender equality and sustainable fishing practices, contributing to the conservation of marine ecosystems and the livelihoods of coastal communities.

Lessons learned

The project highlighted the importance of community engagement and ownership as crucial factors for the success of marine conservation projects. It also confirmed the effectiveness of technical innovation, such as the use of artificial dens, in mitigating environmental damage and supporting sustainable fishing practices. Additionally, the project underscored the importance of capacity building and skill development in empowering communities to participate in and benefit from conservation efforts. Finally, the project emphasized the need for adaptive management strategies and continuous improvement to address challenges such as environmental constraints, poaching, and gender participation gaps.



Contact: Suraj Bacha Gian, ecomarineconsultantsltd@gmail.com

Website: <https://www.ecomarineconsultantsltd.org>



Ocean Innovation Challenge



UNLOCKING ZANZIBAR'S SEAWEED INDUSTRY WITH LOW-COST SOLAR DRYERS



FUNDED BY:  Norway

 Sweden Sverige



- **Innovator:** MAVUNOLAB-The Postharvest Innovation Centre
- **Incubation date:** May 2024 to November 2024
- **Beneficiary country:** Tanzania
- **Financial support:** USD 38,615
- **Category:** Non-Governmental Organization (NGO)

CLICK HERE



Overview

MAVUNOLAB successfully unlocked Zanzibar's seaweed industry by introducing low-cost solar dryers, improving the livelihoods of 60 women seaweed farmers in Bweleo and Pongwe villages. They provided efficient seaweed processing facilities, reducing spoilage and enhancing the quality of dried seaweed. This project has not only benefited the seaweed farmers but also trained 10 young technicians in solar-drying technology, promoting youth engagement and local capacity building. The solar dryers have also improved the quality of seaweed and reduced processing time, contributing to better livelihoods and economic opportunities for women seaweed farmers.

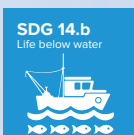
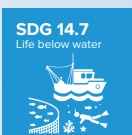
The Challenge

Women in Zanzibar's seaweed industry face challenges due to inefficient seaweed processing facilities, leading to significant spoilage and poor quality of dried seaweed.

The Solution

MAVUNOLAB designed, developed, and deployed solar-powered seaweed drying facilities, enabling seaweed farmers to process seaweed in a clean and safe environment while also avoiding spoilage.

SDG14 Targets:



Other relevant SDGs:



Why this matters

The availability of MAVUNOLAB solar-powered drying facilities improves the quality and value of dried seaweed, enabling seaweed farmers to earn more and leading to better livelihoods.

Support the project

Potential partners could support the project by providing funding for scaling up the production and distribution of MAVUNOLAB solar dryers, supporting the training of more young technicians in solar-drying technology, investing in research and development to further improve the efficiency and affordability of the solar dryers, and creating partnerships with seaweed farmers' associations and government agencies to expand the project's reach.



Main outputs and achievements

The project has directly benefited 60 women seaweed farmers in Bweleo and Pongwe villages in Unguja, Zanzibar, while also indirectly benefiting about 100 women seaweed farmers from neighboring villages who will be using MAVUNOLAB solar drying facilities to process and dry their seaweed. Each of the deployed MAVUNOLAB Solar driers can dry up to 250 kilograms (kgs) of seaweed per day, translating to 1000kgs of seaweed per day for all four driers. The availability of these clean energy food processing facilities will improve postharvest seaweed management and enhance the quality of harvested seaweed, enabling seaweed farmers in Zanzibar to earn more when trading with international seaweed exporters. The project also trained 10 young technicians in solar-drying technology, promoting youth engagement and local capacity building. The solar dryers have also improved the quality of seaweed and reduced processing time, contributing to better livelihoods and economic opportunities for women seaweed farmers.

Lessons learned

The project demonstrated the high demand for MAVUNOLAB solar-powered drying technologies in Zanzibar, indicating the need for scaling up the project. It also emphasized the importance of government support for the success and sustainability of the project. Additionally, the project underscored the need for adequate funding and project timelines to ensure effective implementation and impact assessment.



Contact: Evodius Rutta, erutta@mavunolab.org
Website: <https://mavunolab.org>



Ocean
Innovation
Challenge



MANGROVE HONEY FOR TOGO

FUNDED BY: Norway | Sweden
Sverige



- **Innovator:** TMSU International
- **Incubation date:** May 2024 to November 2024
- **Beneficiary country:** Togo
- **Financial support:** USD 40,000
- **Category:** Non-Governmental Organization (NGO)

[CLICK HERE](#)



Overview

TMSU International successfully implemented the Mangrove Honey for Togo project, addressing environmental degradation and economic vulnerability in coastal communities. By training local people and establishing cooperatives for sustainable beekeeping, the project has generated income and fostered mangrove conservation.

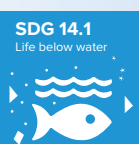
The Challenge

Mangrove ecosystems in Togo face threats from deforestation, overexploitation, and climate change, while local communities struggle with limited income opportunities.

The Solution

The project promoted sustainable apiculture as an alternative livelihood, empowering local communities, especially women, while fostering mangrove conservation.

SDG14 Targets:



Other relevant SDGs:



Why this matters

Integrating environmental restoration with income generation creates a sustainable model for ecosystem protection and community resilience.



Lessons learned

The project highlighted the importance of community engagement and women's empowerment as crucial factors for its success and impact. It also emphasized the importance of combining environmental education with economic incentives to drive behavior change and promote sustainable practices.

Main outputs and achievements

The project trained 101 beneficiaries (85% women) in sustainable apiculture, enabling them to produce over 600 liters of honey and generate additional income. It also reforested 1 hectare and actively protected 42.36 ± 11.53 hectares of mangrove ecosystems.

Support the project

Potential partners could support the project by providing funding for scaling up the project to other mangrove-dependent communities in Togo and beyond, supporting the cooperative business model and market linkages for honey products, and investing in capacity building and training programs for beneficiaries.



Contact: AGBATI Koffigan, tmsuint@yahoo.co.uk
Website: <https://tmsuint.wordpress.com>



Ocean
Innovation
Challenge



SOLAR FOOD DEHYDRATOR: A SUSTAINABLE AND SAFE ALTERNATIVE

FUNDED BY: Norway

Sweden
Sverige



- **Innovator:** ONG MARAPA Sea Environment and Artisanal Fishing
- **Incubation date:** May 2024 to November 2024
- **Beneficiary country:** Sao Tome and Principe
- **Financial support:** USD 39,990
- **Category:** Non-Governmental Organization (NGO)

[CLICK HERE](#)



Overview

ONG MARAPA successfully implemented a solar food dehydrator project for 50 women and girls from three districts in São Tomé and Príncipe (Água Grande, Lobata, and Caué), improving women’s livelihoods and contributing to the sustainable utilization of marine resources. The solar dehydrators have reduced post-harvest losses, enhanced the quality of dried fish, and promoted food safety, benefiting both the fishers and the consumers.

The Challenge

Climate change and the scarcity of fishery products have impacted coastal communities in Sao Tome and Principe, leading to food shortages and spoilage, making it important to find alternatives to diversify income sources for families in coastal areas.

The Solution

ONG MARAPA implemented a solar food dehydrator project, training 50 women and girls from three districts in Sao Tome and Principe in dehydration techniques. The project focused on fishing areas where most of the beneficiaries are located.

SDG14 Targets:



Other relevant SDGs:



Why this matters

The solar food dehydrator addresses challenges related to food preservation, access to preservation, reduction in the use of preservatives, adding value to local products, sustainability, and education. It also aligns with several Sustainable Development Goals (SDGs), including SDG 1 (End poverty), SDG 2 (End hunger), SDG 5 (Gender equality), SDG 10 (Reduced inequalities), and SDG 12 (Sustainable consumption and production).

Support the project

Potential partners could support the project by providing funding for scaling up the project to reach more women and girls in Sao Tome and Principe, supporting the development of production chains and market access for dehydrated products, and investing in training programs for farmers and workers on sustainable agricultural practices and cultivation techniques.



Main outputs and achievements

The project provided 50 women and girls with solar dehydrators and training, empowering them to manage and improve their livelihoods. This initiative not only enhances food security but also promotes economic empowerment and sustainable practices within the community. The project has also successfully built and installed a solar food dehydrator in the community of Porto Alegre, and conducted awareness-raising sessions and practical demonstrations for 10 women.



Lessons learned

The project received positive feedback from people who have tried dehydrated fruits, highlighting the quality and potential of the products.

Contact: Arminda Bom Jesus, mindarolim8@gmail.com

Website: <https://marapastp.org>



Ocean
Innovation
Challenge



SELECT'CRAB

FUNDED BY: Norway | Sweden
Sverige



- **Innovator:** RENAFEP-MADA
- **Incubation date:** May 2024 to November 2024
- **Beneficiary country(ies):** Madagascar
- **Financial support:** USD 39,045
- **Category:** Non-Governmental Organization (NGO)

[CLICK HERE](#)



Overview

RENAFEP-MADA successfully implemented the SELECT'CRAB project, promoting sustainable crab fishing practices and empowering local communities in Madagascar. By introducing selective hoop nets and providing training, the project has improved both ecological sustainability and the livelihoods of fishermen.

The Challenge

Mud crab fisheries in Madagascar face sustainability issues due to a rapid increase in catch and the capture of juvenile crabs, threatening the resource and the communities that depend on it.

The Solution

The project introduced and used selective hoop nets specifically designed for mud crab fishing to reduce the capture of juveniles and non-compliant mud crabs, promoting stock regeneration and sustainable fishing

SDG14 Targets:

SDG 14.4
Protect and Restore
Ecosystems



SDG 14.7
Life below water



SDG 14.b
Life below water



Other relevant SDGs:

SDG 5
Gender Equality



SDG 8
Decent work and
economic growth



SDG 12
Responsible
consumption and
production



Why this matters

This project not only ensures the ecological balance of the mud crab population but also addresses the socioeconomic needs of the fishing communities by promoting sustainable practices that support their livelihoods.



Support the project

Potential partners could support the project by providing funding for scaling up the project to other fishing areas in Madagascar, supporting the development and distribution of selective hoop nets, and investing in training and awareness programs for fishermen on sustainable fishing practices.

Main outputs and achievements

The project successfully trained 80 fishermen, including 25 women, in the use of selective hoop nets and sustainable crab fishing practices. This has resulted in a 40% reduction in juvenile mud crab captures, contributing to the regeneration of the mud crab population. The average size of captured crabs has increased, leading to a 25% rise in fishermen's incomes due to higher market prices for larger crabs.

Lessons learned

The project highlighted the importance of community engagement and collaboration with local authorities as crucial elements for its success. It also emphasized the positive role of training female data collectors in enhancing data collection and promoting gender equality. Additionally, the project underscored the need for a flexible approach to adapt to local conditions and unforeseen challenges.



Contact: Givene Viviane Expresse, renafep.aa@gmail.com

Website: <https://www.renafep-mada.com>



Ocean Innovation Challenge



OCEANUBUNTU

FUNDED BY: Norway

Sweden
Sverige



- **Innovator:** Associação Mar Moçambique (MARMO)
- **Incubation date:** June 2024 to November 2024
- **Beneficiary country:** Mozambique
- **Financial support:** 19,960 USD
- **Category:** Non-governmental organization

CLICK HERE



Overview

MARMO successfully implemented the OceanUbuntu project, empowering artisanal fishermen and fish sellers in Quelimane, Mozambique, by promoting sustainable fishing practices and improving fish processing techniques.

The Challenge

Fishermen in Quelimane faced declining incomes due to a decrease in fish stocks caused by environmental degradation and unsustainable fishing practices, coupled with the low commercial value of their fish due to inadequate processing tools.

The Solution

The project focused on strengthening the processing and fishing value chain by providing training in sustainable fishing, fish processing, and marketing and sales, while also supporting livelihood diversification through local ecotourism development.

SDG14 Targets:



Other relevant SDGs:



Why this matters

This initiative not only improved the economic and social resilience of fishing communities but also promoted gender equality and capacity building within the communities.

Support the project

Potential partners could support MARMO by providing funding for scaling up the project, expanding training programs to other fishing communities, and supporting the development of ecotourism initiatives.



Main outputs and achievements

The project provided personalized training to 90 fishermen, including 40 women, in sustainable fishing, fish processing, and marketing and sales. It also facilitated the construction of fish processing equipment, established a monitoring and evaluation system, and engaged local organizations and stakeholders to support the initiative.

Lessons learned

The project highlighted the importance of community engagement, collaboration with the government, and the need for robust communication channels. It also emphasized the complexity of the fish value chain and the importance of continuous monitoring and evaluation.



Website: https://bit.ly/MARMO_facebook

Contact: Ivaldo Fumo, ivaldodejesusfumo19@gmail.com



Ocean
Innovation
Challenge



EMPOWERING WOMEN AND YOUTH ORGANIZATION IN SUSTAINABLE COASTAL ECOTOURISM FOR LMMA

FUNDED BY: Norway | Sweden Sverige



- **Innovator:** Réseau MIHARI
- **Incubation date:** May 2024 to November 2024
- **Beneficiary country(ies):** Madagascar
- **Financial support:** 39,950 USD
- **Category:** Non-government organization

CLICK HERE



Overview

Réseau Mihari successfully empowered women and youth in sustainable coastal ecotourism in Madagascar, contributing to poverty reduction, gender equality, and marine conservation.

The Challenge

Women in coastal communities in Madagascar faced marginalization in marine governance and decision-making processes, limited access to education and economic opportunities, and high vulnerability due to socio-cultural norms and economic constraints.

The Solution

The project focused on empowering women and youth by providing training in ecotourism management, developing tourism infrastructure suited to local contexts, and promoting collaboration among stakeholders to improve their socio-economic conditions and support their involvement in the management of Locally Managed Marine Areas (LMMAs).

SDG14 Targets:



Other relevant SDGs:



Why this matters

This initiative not only improved the economic and social well-being of women and youth but also strengthened community-based marine conservation efforts and promoted gender inclusivity in governance of Locally Managed Marine Areas.



Support the project

Potential partners could support Réseau Mihari by providing funding for scaling up ecotourism initiatives, expanding training programs to other LMMAs, and supporting community-based conservation efforts.

Main outputs and achievements

50 women and youth were trained in sustainable marine ecotourism management and provided with essential communication tools, materials, and/or equipment. Two pilot sites benefited from key tourism infrastructure, including a community ecolodge, an environmental interpretation center, and a community-managed restaurant, thus creating income opportunities, increasing visibility, and promoting sustainable tourism.

Lessons learned

The project highlighted the importance of thorough site assessments, streamlined administrative procedures with the country's context, and reliable procurement strategies for project materials. A sufficient project completion timeline is a key success factor for such a project, especially when it comes to the implementation of infrastructures. It also emphasized the need for adaptive project management and proactive stakeholder engagement to ensure successful implementation.



Website: <https://mihari-network.org/en>

Contact: Guy Celestin Rakotovao, guy@mihari-network.org



Ocean
Innovation
Challenge



ENHANCING WOMEN PARTICIPATION IN BLUE ECONOMY FISH VALUE ADDITION FOR IMPROVED LIVELIHOODS AND TRADE



FUNDED BY: Norway

Sweden
Sverige



- **Innovator:** Coastal and Marine Resource Development (COMRED)
- **Incubation date:** July 2024 to December 2024
- **Beneficiary country:** Kenya
- **Financial support:** \$ 39,980.48
- **Category:** Non-Governmental Organization (NGO)

[CLICK HERE](#)



Overview

COMRED successfully enhanced women's participation in the blue economy by improving fish processing and value-addition techniques in Kibuyuni, Kenya.

The Challenge

Women in Kibuyuni involved in fish processing faced challenges due to rampant post-harvest losses, rudimentary processing methods, and a lack of proper handling and processing infrastructure.

The Solution

The project focused on strengthening the capacity of women dagaa (small pelagic fish) processors by providing training in business and management skills, fish handling and hygiene, and leadership. It also equipped them with key processing equipment and infrastructure, including fish drying racks and the FTT kiln, to improve efficiency and product quality.

SDG14 Targets:



Other relevant SDGs: SDG 1, SDG 2, SDG 5, SDG 8, SDG 13



Why this matters

This initiative not only reduced post-harvest losses and enhanced the value of fish products but also empowered women by improving their incomes, livelihoods, and participation in the blue economy.

Support the project

Potential partners could support COMRED by providing funding for scaling up the project, expanding training programs to other fishing communities, and supporting the development and dissemination of alternative fish processing technologies.



Main outputs and achievements

The project trained 32 dagaa processors (22 women, 10 men) on life skills, business skills, leadership, and fish handling and hygiene. It also constructed a processing area with sanitary facilities, a water system, drying racks, and an FTT kiln, improving working conditions and reducing post-harvest losses.

Lessons learned

The project highlighted the importance of community engagement, capacity building, and co-designing interventions with the community. It also emphasized the need for frequent information sharing and stakeholder involvement to promote ownership and ensure project success.



Website: <https://www.comred.or.ke>

Contact: Jane Muteti, jane.muteti@comred.or.ke



SUSTAINABLE SEaweeds FARMING IN TANZANIA



FUNDED BY: Norway

Sweden Sverige



- **Innovator:** Sustainable Investments and Development Initiatives (SIDI)
- **Incubation date:** May 2024 to November 2024
- **Beneficiary country:** United Republic of Tanzania
- **Financial support:** USD 39,975
- **Category:** Non-Governmental Organization (NGO)

CLICK HERE



Overview

Sustainable Investments and Development Initiatives (SIDI) successfully promoted sustainable seaweed farming in Tanzania by training 150 farmers (including 30 women) and deploying 30,000 seaweed seedlings. They established a community-based seaweed nursery and provided essential farming equipment, empowering farmers with the skills and resources to cultivate seaweed sustainably. This project has enhanced the community's knowledge and skills, improved their income-generating opportunities, and contributed to the sustainable management of the marine environment, promoting both ecological and economic benefits.

The Challenge

Seaweed farming in Tanzania faces challenges due to ecological threats, insufficient farming policies, and limited access to sustainable farming training and resources.

The Solution

The project provided sustainable seaweeds farming training and green facilities to improve seaweed farming outputs, produce quality, reduce post-harvest loss, and enhance value addition practices.

SDG14 Targets:



Other relevant SDGs:



Why this matters

The project empowers local farmers with new practical solutions, promotes sustainable farming practices, and provides training on social products and market access, leading to improved livelihoods and ecological sustainability.

Lessons learned

The project demonstrated that providing alternative livelihood opportunities and empowering communities with necessary skills and tools can effectively reduce pressure on marine resources and promote sustainable practices. It also revealed that low public awareness and lack of resilience among the community can affect project implementation and resource management.



Main outputs and achievements

The project trained 150 seaweed farmers, including 30 women, in sustainable seaweed farming techniques. It supplied 6 post-harvest solar dryers, which helped increase the quality of crop processing, shorten drying time by 60%, and improve crop yield, reducing processing and post-harvesting loss. The project also facilitated the manufacturing of social products using seaweed outputs, enabling farmers to engage in micro-enterprises and generate additional income.

Support the project

Potential partners could support the project by providing funding for scaling up the project to reach more farmers along the Indian coastline in Tanzania, supporting the establishment of more community-based seaweed nurseries and seed banks, investing in training programs on entrepreneurship skills and business plan development, and creating partnerships with international businesses and funders for project financing and sustainability.



Contact: Martin Malongo, sidimaendeleo@gmail.com



Ocean Innovation Challenge



BOOSTING THE ARTISANAL MUD CRAB FISHERY OF THE BONS SINAIS ESTUARY THROUGH CONTROLLED RESTOCKING OF CULTIVATED CRABLETS

FUNDED BY: Norway

Sweden Sverige



- **Innovator:** Centro de Estudos Costeiros - Universidade Eduardo Mondlane (UEM ESCMC - CECU)
- **Incubation date:** May 2024 to November 2024
- **Beneficiary country:** Mozambique
- **Financial support:** USD 39,821.00
- **Category:** Academe

CLICK HERE



Overview

CECU successfully implemented the CrabWise project, boosting the artisanal mud crab fishery in the Bons Sinais Estuary, Mozambique, through a community-based restocking program using hatchery-reared

The Challenge

The mud crab fishery in the Bons Sinais Estuary faced sustainability challenges due to overfishing, habitat degradation, and limited community participation in resource management.

The Solution

The project established a mud crab hatchery and released 1,000 hatchery-reared crablets into the estuary to enhance wild populations. It also conducted ecologic assessments on population, food habitats and habitat and established a monitoring program to assess the restocking impact.

SDG14 Targets:



Other relevant SDGs:



Why this matters

This initiative not only improved the sustainability of the mud crab fishery but also the model of hatchery based juveniles is also being showcased by management authorities as the only solution to address a sustainable aquaculture of this resource in the near future in Mozambique.

Support the project

Potential partners can support UEM ESCMC CECU by providing funding for scaling up hatchery operations, acquiring additional monitoring equipment, supporting disease monitoring, funding larval feed, expanding community training programs, and supporting research on mud crab ecology and restocking strategies.



Main outputs and achievements

The project successfully established a mud crab hatchery and released 1,000 hatchery-reared crablets into the estuary. It also trained 35 community members, including 15 women, in crab monitoring techniques and sustainable fishing practices.

Lessons learned

The project underscored the need for ongoing research to optimize mud crab cultivation, including survival rates, environmental conditions, and dietary preferences, as well as robust monitoring and evaluation to assess the effectiveness of interventions. It also emphasized the critical role of community engagement, capacity building, and adaptive management in implementing effective restocking programs.



Website: www.marine.uem.mz

Contact: Halaze Manhice, hallazy09@gmail.com

<https://oceaninnovationchallenge.org>

