

# Census of Best Practices

An Overview of the current fishery  
diversification activities in FISH MED NET  
target territories

Document information	
Deliverable code	O31_Med_Business_Model
Deliverable title	Census_Best_Practices
Activity code	Activity A.3.1.1
Activity title	Census of Best Practices
Component code	
Component title	
Responsible for drafting the document	Enrico Maria Andreini
Version	1.3
Date	25/03/2021

Version	Date	Author	Description of changes
1.0	10/06/2020	Enrico M. Andreini	First rough draft
1.1	06/07/2020	Enrico M. Andreini	Second rough draft
1.2	10/09/2020	Enrico M. Andreini	Third rough draft
1.3	26/03/2021	Enrico M. Andreini	Edited context
1.4	04/05/2021	Enrico M. Andreini	Elaborated introduction. Added some visual aids.

## Summary

This document describes the various types of best practices performed by small-scale artisanal fishers found in the target territories of this project: France (notably Corsica), Italy (notably Sardinia, Liguria and Puglia), Tunisia, Lebanon and Palestine. Each partner contributed in selecting their best representation of sustainable practices from 4 different types of businesses with the goal to discover what is already existing and use it to better understand what opportunities lie for FISH MED NET to aid, enhance and ameliorate their current situation.

# Best Practices

## Introduction

The economics for a small-scale fisher have always been in a very precarious state as the world fish stocks have been in decline for the last half century. Many efforts have been put forth in attempt to expand the economic sustainability and resilience of Small-Scale Fishery (SSF) sector by integrating the income deriving from the main fishing activity with additional sources of income from new activities strictly connected with the sector. FISH MED NET is built upon previous efforts and its purpose is to recreate those business diversification models proven as success stories, whilst, linking the businesses involved within this project among the five partner countries further increasing their chances of success by promoting sustainable practices.

This Census of Best Practices (A 3.1.1) is not a stand-alone activity for research purposes. Within the framework of the FISH MED NET project, the census represents only the first step for then clustering the diversification activities, further analyse them through market analysis (A3.1.2), standardize them into more detailed Business Models (A 3.1.3), support the network between the MSMEs active in those fishery diversification activities through Platforms (A 3.1.4) and Business Alliances (A 3.1.5). The project will then support those enterprises through Trainings (O3.2), Participation in international Fairs (O3.3) and Counselling desk (O3.4).

To complete the overview of the project, it is worth to mention that the Working Package 4 of the project will dedicate a specific focus to the potential services that could be offered to the public sector. An in-depth analysis and mapping of successful experiences of PPPs will let to define packages of tools dedicated to public officers for involving fishermen for the provision of services.

In order to produce this document, experts started identifying best practices in each target territory. Once that all those practices have been collected, it was possible to cluster them into 4 groups of activities. Considering the differences between the fishery sectors in the involved Countries at economic, social and legislative level, there is a certain level of heterogeneity within each group. Nevertheless, the clusters created are built over some key common elements of the diversification activities proposed, already in the perspective of the potential collaboration through future common business alliances.



# FISH MED NET

Therefore, here below we start by introducing the 4 clusters of activities identified. As mentioned, the partnership opted for broad clusters with a relevant level of heterogeneity in order to be able to include all the different experiences identified.

The document will then introduce the best practices Country by Country, grouped according to the 4 different clusters.

## Clusters of diversification activities

Throughout the Mediterranean basin, different types of diversification activities for the fishery sector can be encountered. Four main types have been identified and while completing activity Fishery A.3.1.1 Census of Best Practices Mediterranean it has brought forth the prevalence of these business models implemented within the fishery field. Here below we will briefly mention each type and give a few examples (table 2) each country has had previous experience.

### Cluster 1. Tourism activities

#### Pescaturism

Professional activity carried out by the fishery entrepreneurs (single, company or cooperative), in which tourists can board fishing vessels for recreational purposes.

#### Ittitourism

Professional activity exerted by the fishery entrepreneurs (single, company or cooperative), in which tourists are provided services under the form of hospitality such as, selling food and beverages, boarding, educational, recreational, and cultural apprehension.

### Cluster 2. Public Service

The activities within this branch will be carried out by fishery entrepreneurs as either part of their own business plan, or partnered with institutes (for research or educational purposes) or government entities. The activities fall in the realm of safeguarding the marine environments. Examples of these activities are:

- Invasive species capture/assessment
- Environmental monitoring/assessment
- Marine litter collection
- Cultural heritage
- Protected species monitoring

### Cluster 3. Mariculture

This branch involves the necessary processes for carrying out the farming of marine species within the seas. Fishery entrepreneurs are engaged in commercial activities that will either promote the collection of seeds (fish fry or invertebrate larvae) for grow out operations, to then be linked to the secondary or tertiary sector. Examples of such activities are:

- Fry collection
- Coral mariculture
- Seaweed collection/mariculture

### Cluster 4. Food Industry

The activities within this branch, for those fishery entrepreneurs who may want to engage in either the processing of seafood products (transformation), logistics and selling of the product itself for human consumption. Some of the activities will be grouped under:

- Seafood processing
- Diversification of products
- Ecolabeling (quality improvement)
- Direct selling

## FRANCE

### Tourism

#### Pescatourism

Pescatourism is the embarkation of passengers, other than crew members, for recreational purposes on board a professional fishing vessel. Depending on the European states, it may be limited to simple observation of fishing operations or it may offer more "tourist" activities. For example, in France, tourists on board can only "live" the life of a fisherman during a sea trip, while in Italy fishermen can offer meals on board based on the fish caught, visits to the coast and swimming as well as angling.

The relationship between fishermen and tourists has always existed. However, it was not until the 1990s in Europe, faced with the problem of fish resources, that the principle of diversification appeared as a solution that led to the adoption of regulations. Previously, tourists were taken on board without this being provided for in the safety regulations for fishing vessels.



Figure 1. Pescatourism L'Estrygon II Bonifacio, Corsica.

In France, pescatourism has been authorised only from the years 2010 for both professional fishing and shellfish farming by the following texts:

- Order of 9 May 2011 amending the Order of 23 November 1987 on the safety of aquaculture vessels through the creation of Division 230 specific to aquaculture vessels of less than 24 metres in length.
- Order of 13 March 2012 amending the order of 23 November 1987 relating to the safety of armed fishing vessels and to divisions 226 (vessels from 12 to 24 metres) and 227 (vessels less than 12 metres).

These regulations were adopted following experiments in pilot territories within the local development projects funded by Axis 4 of the European Fisheries Funds (2007 – 2013). Corsica has been a major pilot territory with the Provence-Alpes-Côte d'Azur Region for the Mediterranean coast and the Arcachon basin for the Atlantic coast.

## Ittitourism

Ittitourism is the parallel of agritourism for professional fishing. This activity, highly developed in Italy, is not authorised in France under the tax regime for fishing, although it is claimed by professional fishermen and aquaculturists. Tasting activities, in raw preparation only, are authorized locally and only for the shellfish farming sector, according to prefectural decrees in the Aquitaine, Poitou Charente and Languedoc regions, where the most important shellfish productions are located (oysters and mussels). However, for the first time, in the Var department, a prefectural decree, issued the 24 June 2013 gives the opportunity to aquaculturists (shellfish and fish) to offer, as part of their professional activities, tastings of their raw or cooked products, in a way that is "incidental" and "directly linked to the act of production ».



Figure 2. Fishermen hostel St Florent – Damien Muller

Corsica does not benefit from any possibilities in this field although the concept of the "fisherman's inn" was proposed by the professional fisheries organisations as early as the 1980s. Also, all along the Corsican coast, restaurants have been opened by fishing professionals with the aim of enhancing the value of fishing products. The best known are:

- La Taverne in Aleria (Eastern coast), a kind of sea and land agritourism in which a local farmer and fisherman have teamed up to offer only their own products,
- L'auberge du Pêcheur in Saint Florent, owned from father to son by a family of fishermen offers only fresh and processed seafood from the family fishmonger's shop next to the restaurant.

## Public Service

The development of fisheries in Corsica is based on local synergies between public authorities, professional fisheries organizations, and the world of university research. To this must be added the role of marine protected areas and marine parks which intervene in the preservation and restoration of the marine environment.

The Corsican Environment Office (OEC) is the public establishment whose mission is to give impetus to and coordinate all regional policy on the environment and sustainable development, ensuring the protection, enhancement, management, animation and

promotion of Corsica's heritage. Professional fishing and marine breeding are among its prerogatives.

The Regional Commission for Fisheries and Marine Breeding (CRPMEM) of Corsica as well as the 4 Prud'homies are the representative bodies for professional fishing and sea farming.

The CRPMEM of Corsica is a joint interprofessional organization which brings together all professionals involved in the production, sale and processing of products from sea fishing and sea farming. It represents the interests of the regional sectors with regard to maritime affairs and representatives of the State and local authorities.

The Prud'homies represent the second professional entity. They are responsible for settling internal or external conflicts between professionals, as well as managing assets (fishing territories and fish resources) and representing the interests of the community. This very old maritime institution, specific to the French Mediterranean, is a very recognized and very active organization in Corsica. Corsica has 4 Prud'homies: Bastia/Cap Corse, Bonifacio, Balagne (Calvi) and Ajaccio/Propriano/Cargèse.

The development of fisheries diversification activities in Corsica, mainly pescatourism, has been made possible thanks to the partnership between the CPMREMC of Corsica, the OEC and the participation of the fisheries authorities. These organizations are still involved in all the discussions and plans for new fisheries diversification activities. Ittourism is an activity that they strongly claim.

Finally, the Stella mare platform was created by the National Centre for Scientific Research (CNRS) and the University of Corsica in 2011. The aim of the platform is to provide concrete solutions to the problems faced by maritime professionals, and to accommodate both the optimal exploitation and the preservation of marine natural resources. With the ecological engineering tools, it promotes sustainable aquaculture and responsible fishing in direct collaboration with fishermen, aquaculturists and environmental managers.

## Mariculture

The aquaculture and shellfish farming sectors have been developing in Corsica over the last fifteen years. Around 900 tones of farmed fish, mainly sea bass and sea bream, are produced



Figure 3. Pilot boat for pescatourism in Corsica.

each year. 90% of this production is sold outside Corsica. Some of it is exported to the European market (Italy, Spain, Northern Europe, etc.).

The production of mussels and oysters is about 700 tons by year. It is mostly based on the Diane and Urbino ponds on the eastern plain, where historically mussels and oysters have always been. This production is intended for the local market and, to a small extent, for the Italian market.

## Food Industry

In Corsica there is no fish processing company like the Ferrigno company in Provence in the South of France. There are sometimes and locally micro initiatives which have developed or are in the process of development thanks, in part, to the aid of the European Maritime Affairs and Fisheries Fund. As an example, the case of Sebastien Rialland, a young fisherman owner from Bastia, can be cited. He offers high quality canned Mediterranean bluefin tuna from his own fishery.

## LEBANON

### Tourism

#### Pescatourism

Recreational fishing: George and Nadim Al Dayaa are full-time fishermen in Anfeh and have been involved in the hospitality sector and diversified their income with tourists coming aboard their boat. As part of their services they welcome onboard divers, snorkellers, and people interested in sea trips by conducting a basic endeavour business model, with no marketing strategy or support of any kind. It needs to be pointed out that in Lebanon it is forbidden by law to board non-fishers on fishing vessels. The charge ranges from 33 and 67 \$ per outing.

#### Ittitourism

##### Traditional Boat Building in Saida

Of the many maritime cultural spots to visit one can learn more about the local Lebanese boat building practices at [Nasser Accad's boat building workshop](#). The boats, which vary in size, take around two months to build, so the small team can build around four to eight per year depending on demand, with each one being sold for around 8,000 USD. With boat building hubs limited to the towns of Saida, Tyre, Sarafand and Tripoli, Accad has built many of the fishing boats in this harbour and around the country. Though the elemental shape of these traditional fishing boats remains the same, models vary according to localized preferences and such differences can be seen depending on what port tourists are visiting.

### Public Service

#### Tyre Coast Nature Reserve

Is a Nature reserve as well as a Ramsar site located in Southern Lebanon expanding over 380 ha, [Tyre Coast Nature](#) Reserve remains the largest sandy beach in Lebanon. Besides its importance for visitors' entertainment, Tyre Coast Nature Reserve harbours many species of plants, animals, and insects. It is a nesting site for the endangered Loggerhead and green sea Turtle and the shelter of the Arabian spiny mouse and many other important creatures. Tyre Coast Nature Reserve is of a particular importance for the following purpose:

- Freshwater estuaries and springs that outflow to the sea thus creating fresh/marine water interface.
- Habitat for sea turtles
- Last and largest remaining sandy beach in Lebanon
- Divided into three main zones:
  - 1- A beach zone
  - 2- A high conservation zone that includes the Phoenician springs of Ras El Ain.

- 3- A large area for agriculture

#### **Palm Islands Nature Reserve**

Covering 5 square Km and located on the northwest of Tripoli, Sanani, Ramkine and Palm Island together with their surrounding sea make up the [Palm Islands Nature Reserve](#). They are Lebanon's only true Islands. Several designations have been given to Palm Islands reserve due to its special characteristics: it has been designated a Mediterranean Specially Protected Area under the Barcelona Convention, an Important Bird Area by Birdlife Convention as well as Wetland of Special International Importance. Palm Islands reserve is a resting place for migratory birds such as the grey heron. It also harbours some endangered reptiles such as green sea turtle and Loggerhead turtle as well as endemic sub-species of lizard, bats and a number of sheltering fish. Parts of the reserve are accessible during summer for swimming and snorkelling. The rest of the year the Islands remain a quiet calm haven for wildlife.

#### **Artificial Reef Garden-Jounieh Bay.**

The objective of the artificial [Reef Garden-Jounieh Bay project](#) is to rehabilitate the natural system of our sea and to improve sea productivity. This will be achieved through installing at sea particularly designed structures made of concrete, called artificial reefs, to become homes for fish where fish live, hide and lay their eggs safely. The structures create places for all other beings of the sea to live and grow and offer food to fish, so the whole marine ecosystem will be revived.

The project will be installed in the Bay of Jounieh where 200 of our structures will be deployed at the appropriate depths (15-30m below sea level). It will be beneficial for the fish stock, the fishermen, the fisheries, the economic sector around fish, and the tourism sector. The created reef will become the first underwater protected area and will attract underwater ecotourism.

#### **NEMO project - Mediterranean Coastal Communities**

[Nemo project](#) is a Cross-Border Rural Coastal Communities Development, Promoting sustainable development process for coastal rural communities of the Mediterranean countries:

- Mapping of Sustainable Relevant Initiatives of small-scale activities in Tyre harbour and coastal system
- Study on "Coastal development program of the Mediterranean region: analysis, strategy and perspectives".
- WEBPORT, a media facility for the Mediterranean Coastal Communities for supporting the South-to-South exchange of experience and best practices.

The objective of the initiative is to make citizens and tourists aware of the importance of protecting sea turtles, often threatened by fishing hooks and nets and, above all, by plastic pollution, mistaken for food.

### **CANA Research Vessel**

The Italian government donated Lebanon a [scientific vessel](#), containing essential laboratories, training rooms, and scientific equipment, in collaboration between the CIHEAM IAM-Bari, the Lebanese Ministry of Agriculture (MoA), and the National Council for Scientific Research-Lebanon (CNRS-L). The aim was to enhance sustainable coastal development and to prioritize the study of marine eco-systems in Lebanese marine waters, supporting marine studies and research in Lebanon.

Three CANA Related Projects have been implemented by the CNRS-L between 2009-2017.

### **Marine Resources and Coastal Zone Management Program (MRCZMP)**

The Marine Resources and Coastal Zone Management Program (MRCZM) at the Institute of the Environment (IOE) at the University of Balamand (UOB) was launched in June 2004. Its main areas of focus are the coastal zone Lebanon and their associated resources. Its efforts fall in the coastal zone management and is targeted at students, managers, planners, decision makers, community activists, and resource users. The overarching objective of this project is to harmonize all aspects of the coastal areas for high quality environmental monitoring in order to develop a sustainable coastal zone management.

### **Assessment for Replacement of Illegal Fishing Gears in Lebanon**

At the request of the Ministry of Agriculture, and through [FAO's technical cooperation programme](#), FAO Lebanon launched in September 2019 a project which will provide the Lebanese Government the technical assistance to accurately assess the fishing fleet and its related requisites. For this purpose, a national census was started.

As a response to Lebanon's Ministry of Agriculture request for the development of a sustainable fisheries management on the Lebanese coasts, a technical cooperation programme from FAO Lebanon launched a project in September 2019 in efforts to assess the fishing fleet and their related requisites.

The outcome of this technical cooperation is to implement an environmentally sustainable fisheries management of a Pilot Region along the Lebanese Coast and to this date Lebanese Fishing Fleet & Fishing Gears have been assessed; pilot region has been selected, managed, monitored and protected; and illegal fishing gears replaced with legal ones on fishing vessels of the Pilot Region.

### **Scientific and Institutional Cooperation to Support Responsible Fisheries- Eastmed**

[EastMed](#) is a project executed by FAO and financially backed by Italy, Greece and EU whose overall objective is to enhance national capacities for fisheries management by promoting technical and institutional capacity development throughout the Eastern Mediterranean countries. The project will strengthen as well sub-regional cooperation for the management of shared resources in the Eastern Mediterranean through jointly addressing pressing issues

affecting the sustainability of fisheries. The aimed outputs of this project are to achieve expertise in fishery statistics, stock assessment, and fishery bio-economic assessment.

### **Rehabilitation and Equipping the Jiyeh Fishermen Port and Construction of a Fish Market and Facilities” project**

The [rehabilitation of the Jiyeh port](#) marks an important milestone for providing a reliable entry point to all fishermen in accessing an infrastructure with high standards of safety, tools and necessary equipment to facilitate their catch landings. Such a project was possible thanks to the successful coordination with the Ministry of Public Works and Transport and fulfilled the expectations of creating ample room for boat parking space along with cooperative rooms for the local fishermen.

### **Fishermen Role in Research (public partnership)**

Previous efforts in mapping out best practices on Lebanese coastlines have been carried out by similar projects to this one; One of these projects is known as [FISHinMED](#). A whole community of fishers has been surveyed to better understand how they conduct their fishing practices and if there were any other sources of income. This is the case of Mr Toufic Assal, a fisherman from Batroun’s port. He previously supported scientific research with his 10 meters long vessel, as well as, touring representatives of international organizations through the coastlines of northern Lebanon. The research activities to which he lent his services ranged from working in Marine Protected Areas, sampling activities, along with important data collection. His experience and seafaring knowledge are well recognized among the Lebanese researchers.

## **Food Industry**

### **Restaurant**

#### **Samket Gerge al Dayaa**

Other diversification strategies found among the Lebanese fisher communities integrate the principles of ittitourism. In al Dayaa with [Mr Georges Al Dayaa](#) who is a full-time fisherman and runs a fish selling point along with a restaurant as a family business. His experience started over a decade ago in which he sold fish and as business was becoming prominent expansion was a reality and developed a restaurant that can hold 80 people, where clients can be served freshly caught fish.

### **Rouhana's Shop**

Another example, is the case of the fisher [Mr Elie Rouhana](#) who is now a part time fisher as well as manager of his family business. The catch he lands ends up being sold locally in a small kitchen set up in his shop, either as fresh, processed or cooked to the demanding clientele cook. The ratio of sold products fresh to processed constitutes a 1:9 on his profit, that is (according to him) enough to satisfy his family income without feeling the need to expand the business.

### **Canned Tuna and Sardine in Jars**

#### **Fares' Shop**

Mr [Walid Fares](#) is a full-time fisherman who diversified his income by running also a fish market and selling local and imported fish from Cyprus farms. At the same time, Mr. Fares has successfully set up a system for preserving his daily catch of tuna and sardines as canned products.

## TUNISIA

### Tourism

#### Pescatourism

##### **Fishers of Ghar El Melh, Bizerta**

During summertime, the area is highly frequented by beach goers thus, fishers seized this opportunity to transport and entertain the visitors. One of the activities that is typical to Ghar el Melh is "Gataaya" which are small man-made islets established in the lagoon salt water and receive fresh water to produce potatoes, watermelon and onions. There is no legal framework that organizes this touristic activity, yet the fishers are seeing the economic benefit and continue to do it. WWF is now looking at proposing a law project to organize the diversification of fishing activity.

##### **EcoRand Sidi Mechreg, Bizerta (public partnership)**

A fisher's son has set up an ecological project creating an underwater trail in [Sidi Mechreg](#). Indeed, ATDEPA participated to promote ecotourism in a region economically and socially disadvantaged "Sidi Mechreg" with the project MedPan. Before the project, the zone was not covered by mobile network and consequently they had no access to the internet. This helped them to develop their activity and have access to new markets.



Figure 4. Visit of the underwater trail of EcoRand

#### Ittitourism

##### **Dam Sidi Barrak**

Fisher in Dam Sidi Barrak, Beja: A young private investor leads the activity. It offers visitors the possibility to experience a boat ride to the dam's shore provided by a local guide and later try authentic gastronomy based on locally caught fish and local products. In Tunisia, transporting persons on board fishing boats is forbidden. To solve this, the investor proceeds to the acquisition of pleasure boats.

## Public service

### Fishers' association in Medenine

The [NEMO project](#), financed by the Italian cooperation agency and managed by the CIHEAM Bari and the Tunisian Ministry of Agriculture, provided a support to the fishers' members of fishers' associations by training them on how to select a suitable diversification project and be able to receive and manage a circular grant. This small grant was used to diversify their revenues and to improve services such as Market, ice supply etc.

### Private sector fishers' association

Blue crab has invaded southern Tunisian coasts since 2015 and has caused huge losses to artisanal fishing gears. The state has since adopted a plan to revive artisanal fishing through the encouragement of private investment in the processing of this alien crab and has invested in finding suitable fishing gear for this species. Currently, this invasive species is exported to several destinations and constitutes an important entry of money for the artisanal fishers who succeeded to adapt with it. The blue crab is no longer considered as a threat but rather an opportunity for small-scale fishers' diversification.

### Trademark "Club Bleu Artisanal"

As part of a cross-border project ENI Italy-Tunisia 2007-2013 the initiative aimed to promote and give added value to artisanal fishery products by creating a label "[club bleu artisanal](#)" which is a guarantee for the consumer certifying the origin of the product and the respect of the good handling practices during its transport. For this purpose, an android application has been developed to give the possibility to the consumer to have all the details related to the product using a QR code (fishing area, scientific name, etc)



Figure 5. Labeling of artisanal fishery products by CBA.

### Environmental services, Monastir

The [NGO notre grand bleu](#), started on cooperation with the administration and local authorities the identification and implementation of a management plan for a proposed MPA, the aim was to conserve the fisheries ground, as well as to protect a sensitive nesting area for sea turtles. Several events were organised during several year until the enforcement of the MPA by law in 2020.

## Mariculture

### **Aquaponics, Tunis**

An urban agriculture project led by a young investor who is also an fisheries' engineer. It consists of the production of ornamental fishes together with vegetables on a closed system. The system enables the use of the fertilized water to produce biological vegetables in aquaponic tanks.

## **Food Industry**

### **Quality improvement and direct selling, Sidi Mechreg, Bizerta**

Local fishers and mostly, their wives and children and retired fishers have been trained by ATDEPA to sewing themselves the nets and encourage them to use the regulatory mesh and equipment showing its importance to have better quality, preserve the environment and minimize the costs. Besides, fishers and their relatives attended training about the best practices for handling the fishery products and the importance of the use of ice onboard. In addition, they had the opportunity to have direct contact with consumers and restaurants using phone calls and exhibiting their products in the associations' premises, which helped them to have additional revenues and not be exclusively relied on by the middleman.



Figure 6. Closure of training sessions organized by ATDEPA.

### **Quality improvement and seafood processing of eels in the lake of Tunis**

Eel fishing in the Lake of Tunis is one of the artisanal fishing activities in Tunisia that could be qualified as authentic. The technique used is unique, based on fixed fisheries named "capéchades". Since the eels' capture is a time-limited activity, the creation of new revenue sources is a priority to keep the artisanal fishers off INN fishing. This project developed by the CRDA and the FAO aims to offer an added-value to eels' fishers' products by helping them conserving and selling the eels as processed products and training them in net-mending. This will help to decrease the production cost and increase the financial resources.

## PALESTINE

The Fishermen Syndicate (FS) in Dair Al-Balah/Gaza strip/Palestine was established in 1996 in Dair Al Balah –middle governorate in Gaza strip has (650) fishermen members. Its overarching aim is to improve the livelihoods of those in Dair al Balah who depend on fishing as their main source of income within a family-based approach where youth and women benefit from the SF services and interventions and use it as a tool for their economic and social empowerment.

The Fishermen Syndicate of Palestine offers services and intervention under the three following components of tourism, institutional partnerships and food security.

### Tourism

#### Ittitourism

The Fisher Syndicate in partnership with the ESDC are engaged in creating business opportunities for fishers' household female members through the establishment of a kitchen. The fish provided to the kitchen is caught during the previous night by local fishers, therefore strengthening the demand on the market and allowing women to learn and practice the correct processes to adequately clean the fish, prepare it, and cook it in order to supply the local market, as well as local beach visitors.

Given the restrictions imposed by local Israeli forces patrolling their territorial water this diversification allows the Palestinian fisher community another source alternative income to support their family needs. The women who operate the kitchen are trained with the current production methods, that deliver quality assurance to the markets and obtain adequate financial backing. The women fish processors also receive capacity development training to successfully run businesses, carry out necessary accounting, conduct feasibility studies, among other things.

Among other efforts put forth by this mutual collaboration between the FS and ESDC, local cultural appropriation is proposed to tourists by teaching them the best practices to clean and cook the daily fish catch.

Some of the activities of fishermen and fishermen women will be grouped under:

- Seafood processing
- Local tourism
- Education about the marine environment & Marine organisms

## Public Service

Improve the capacities of the fisher syndicate to provide services to their members through conducting institutional development (management and accounting systems) and providing business coaching and training.

## Food Security

Provide fishers an access to affordable inputs (6 tons ice/day) by equipping the Syndicate with an industrial ice maker that is powered by solar energy and an ice storage unit and create job opportunities for (10) fishermen. This enables the fishers to purchase their ice from their area without transportation cost. It is estimated that each fishing boat (10-12 fishers) needs 12 to 18 \$ for ice per workday depending on whether they are using municipality electricity or generator. Through the solar energy ice, the FS coordinate the cost of the ice to be minimal in order to cover operating and maintenance costs of the ice maker and storage unit.



Figure 7. Fish pond farmers, Jericho.

One of the main activities that the ESDC-Palestine is vested with regards to food security is to develop aquaculture systems throughout the territory, in an effort to increase fish protein consumption, as well as, to increment business diversification. Interest in aquaculture practices in Palestine is struggling to gain public authority, women cooperatives involvement and momentum among the community. Therefore, it has been in a developmental stage for quite some time. In particular, this activity encounters various challenges, such as but not limited to, scarcity of supplies to supplement the entire activity (fingerlings, feed, equipment, construction material), political unrest and security situation, among others. Some projects in the Jericho Governorate have begun and are yielding positive results, but require further efforts in order to make it a sustainable practice.

## ITALY

### Tourism

#### Pescaturism

Pescaturism is a form of integrated tourism to the artisanal fishery sector that in Italy has been implemented and regulated ever since 1999. Such practice allows artisanal fishers to welcome tourists onboard their vessel solely for the educational purpose of teaching the cultural importance of the activity whilst conducting a coastal excursion of the local area. This is a complementary type of activity that allows fishers to increase their income.

Such activity is limited to those fisher entrepreneurs who are registered as a single entity or organized under a cooperative (or consortium). The boat must possess a regular license to carry out such activity, along with all necessary safety equipment present onboard. Finally, national laws will allow for the fishers to conduct pescaturism only within the 3 miles from the coast of their port of registration.

This practice exposes the tourists to the variety of the artisanal fishery methods that are practiced within the area, with exception of the trolling and seine nets. Furthermore, this activity is diversified within itself as tourists are allowed to savour the experience by consuming locally caught fish, prepped and cooked onboard, as well as, helping the fishermen in hauling the fish.

One example found within the region of Liguria is the [cooperative of fishermen of Camogli](#). Located on the shores of Camogli (GE), they are licensed to fish within the marine protected area (MAP) of Portofino. Their fishing activities specialize on a variety of small fish, and also manage the small tuna ranch of Camogli. Furthermore, this cooperative of 30 fishers has taken the tourism aspect in diversifying their profits by incorporating recreational fishing and organizing sea excursions through the MAP of Portofino by paddling on a kayak.

An example of a well-established company in the pescaturism sectors is Spirito Santo Società Cooperativa located in Sardinia. This cooperative is located in the southernmost part of the Sardinia region, by the two beaches of Chia and Tuerredda and its mission is to divulge the importance of the local artisanal fishery by fishing right in front of the tourists. A typical day starts early in the morning tourists are brought onboard and get to view how the fishing practice is carried out, the boat will then navigate to calmer waters where tourists can relax

by either snorkelling or watching how the catch is sorted and cooked onboard as part of their lunch.

In the region of Puglia one can easily experience pescaturism with services offered by the fisher [Argento Adriano](#) who will take tourists on board of their vessel in order to experience the fisher lifestyle he conducts year-round. This service is obviously coupled with a coastal excursion of the area of Fasano (BR), with high quality services provided by the crew in order to deliver a unique experience.

### Ittitourism

The sector of ittitourism has a different connotation to that of Pescaturism as it revolves around the “hospitality” sector. Fishers or cooperatives will engage in an activity that is land-based and will cater to the tourists through food or educational services, or a combination of both.

Such is the case found in many parts of Italy and one example can be seen with the cooperative [Imperia Pesca](#) in the region of Liguria Motobarca Pingone. The cooperative is located in the port of Imperia Oneglia, where the fishing boat (peschereccio) focuses on the transformation of the daily catch as part of a quality assurance program to promote the freshness, as well as the seasonality of the product itself. Contrary to many restaurants, the cooperative has the benefit of offering the entire seasonal variety of fish products found within the Ligurian waters throughout the entire year. Another service they offer to complement the quality of their daily catch falls within the local cultural experience, in which guests are taught on how to best cook the daily catch.



Figure . Pingone Cooperative operating from their fishing boat.

A similar cooperative with a good diversification strategy with the number of services that are offered can also be found in Sardinia with the fishermen cooperative of [Pescatori di Sant'Andrea](#). Situated in the lagoon of S'ena Arrubia in the province of Oristano, west coast of Sardinia, the fishermen carry out their main fishing activities, along with activities that range from cooking shows, food services, and eventually educational programs as part of their diversification program.



Similarly, one can visit the ittitourism practices done by Martellota Leonardo in Savelletri di Fasano (BR) in Puglia, who is registered as legal entity, and promotes his business as [Ricciolandia](#). He practices the art of small-scale fishery where he started fishing sea urchin as the main species, but over the years diversified his income by offering cooking services, as well as, providing accommodations to those tourists who are interested in sojourning in the small town.



Figure 8. Ricciolandia hospitality and fishing enterprise

## Public service

Some institutional partnerships are the result of similar projects put forth by initiatives like those of ENICBDMED. These projects developed in the previous years, couple the need of ameliorating the quality marine related issues from water quality to educational services and more. One of these initiatives is the result of the INTERREG program is [P.R.I.S.Ma MED](#) where a partnership between the region and their respective coastal municipalities and cooperatives can interact with cooperatives in obtaining services for the monitoring, assessment, of the different types of wastes produced by fishing related activities. Such is the case with the cooperative [Ziguele](#) found in Liguria that has been active since 2016 and is vested in the PRISMa MED project. Other services they provide fall within the educational component and the promotion and dissemination of the importance of marine ecosystems through conservation efforts and sustainable tourism practices.



Figure . Cooperative Ziguele.

Similar efforts have been put forth within the region of Sardinia in which the [Fishery Local Action Group Sardegna Sud Occidentale \(FLAG SSO\)](#) acts as a focal point for many fishers and fisher cooperatives to access public funds and initiatives brought forth by the EU to develop strategies for promoting sustainable uses of the marine resources.

Such efforts can be found in Puglia where the [University of Bari - Department of the Science and agro-habitats and territory \(DiSAAT\)](#) is availing of the public funds put forth by the [European Maritime and Fisheries Fund \(FEAMP\)](#). It offers outreach programs aimed at 1) community of local fishers in order to disseminate the importance of sustainable fishing practices, as well as 2) local citizens, in a continuous effort to raise awareness on the importance of feeding on local fish products.

## Food Industry

This last section encompasses different types of businesses all primarily aiming at the food service industry, whether it be cooking for clients, rearing the seafood product, or simply processing it.

### Restaurant

Many coastal businesses vested in the seafood industry primarily on the local catch that is available on a daily basis. Seafood restaurants along the coast of Italy present a good diversification source for income, and some may be members of the [Confcommercio cooperative](#). Such is the case for the seafood restaurant [Il Pesce Matto](#) found on coasts of the city of Imperia (Liguria), they deal with fresh catch on a daily basis and due to Covid restrictions have been diversifying in home deliveries in order to keep the activity alive.

One other example of restaurants can be the variation under the vests of agritourism found in Italy in which local products can serve many purposes, from simple food restaurant services to holding functions like weddings, seminars and more. One good example can be seen in Puglia with the agritourism [Tenuta Pinto Mola](#) in Bari, in which couple the local land products with those caught fresh by local small-scale fishers.

## Mariculture & Seafood Processing

The different variety of best practices found throughout the artisanal fishers of the Italian coast are many. The potential of diversifying the artisanal fishers' income through guided tours are brought to visit the sites where the fishery takes place and where it gets processed is a well a sustained practice. Yet, such practices require the fishers or cooperatives must be well established and trained in order to perform such tasks. An example of a cooperative who took advantage of such initiatives to accommodate tourists is the Cooperative of fishermen and shellfish farmers "Oro di Cabras". This cooperative operates within the ponds of Cabras, Sardegna primarily conducting mariculture of mullet. Such settings allow fishermen to catch mullet all year round, also supplementing the national and international market with fresh roe during the month of September. On top of that the area in which they operate is the most humid and biodiverse swamp areas found in the Mediterranean and therefore adding the cultural value to the tourists' experience. Also, as part of their guided tour they also set up visits for those interested in learning more about how the fishery value chain works within their processing facilities.

		<b>Partnerships / Community Service / research and education</b>					
<b>Tourism</b>		<b>Partnerships / Community Service / research and education</b>		<b>Mariculture</b>		<b>Food Industry</b>	
Pesca-tourism		<a href="#">Invasive species capture/assessment</a>		Fry collection		Seafood processing	
Marine tourism		<a href="#">Environmental monitoring/assessment</a>		<a href="#">Coral mariculture</a>		<a href="#">Diversification of products</a>	
		<a href="#">Marine litter collection</a>		<a href="#">Seaweed mariculture</a>		Quality improvement	
		<a href="#">Cultural heritage</a>		<a href="#">Seaweed collection</a>		<a href="#">Ecolabel</a>	
		<a href="#">Protected species monitoring</a>				Direct selling	
<b>Corsica</b>	<a href="#">Pescaturisimu en Corse, embarquez avec les pêcheurs en ...</a>		<a href="#">Plateforme STELLA MARE   Università di Corsica Pasquale ...</a>		<a href="#">Gloria Maris Groupe - Accueil</a>		
	<a href="#">fit4blue   fishing tourism for blue economy</a>						
	<a href="#">Project – Ensemble</a>						
	<a href="#">Pescaturisimu di Corsica   Emagazine et guide de voyage du ...</a>						
	<a href="#">MON PANIER SUD-CORSE</a>						
	<a href="#">Pôle Économie et Tourisme Sud Corse</a>						



FISH MED NET

Italy	<a href="#">Love boat sea experience</a>	<a href="#">Porto Museo Tricase</a>	<a href="#">FLAG Mare delle Alpi</a>	<a href="#">Fish all days</a>
	<a href="#">Imperia Pesca</a>	<a href="#">Ecoadria Fishermen</a>		<a href="#">Bellantuono Matteo</a>
	<a href="#">Coop. Pescatori Camogli</a>	<a href="#">Coop. Pescatori Boccadasse</a>		<a href="#">Ristorante Braccioforte</a>
	<a href="#">Coop. Fiordipesca</a>	<a href="#">RSTA</a>		<a href="#">Ristorante Pescematto</a>
	<a href="#">Piccola pesca Monterosso</a>			<a href="#">Ristorante A Casetta</a>
	<a href="#">Sangregorio Pesca</a>			<a href="#">Ristorante Cacciatori</a>
	<a href="#">Anime sante</a>			
	<a href="#">Med Platform Fishing</a>		<a href="#">L'Oro di Cabras</a>	<a href="#">La Sulcitana</a>
	<a href="#">CO.PE.G.A. Società Coop. Sant'Andrea</a>	<a href="#">FLAG Pescando</a>	<a href="#">Pescatori Nettuno</a>	<a href="#">Mercato Marrubiu</a>
	<a href="#">Coop. Longosardo</a>	<a href="#">FLAG SSO</a>		<a href="#">Mercato Arborea</a>
	<a href="#">Santo Spirito</a>	<a href="#">Isforcoop</a>		<a href="#">Ristorante Il Vesuvio</a>
		<a href="#">FLAG GAC</a>		<a href="#">Ristorante Era Ora</a>
	<a href="#">Nel Sinis</a>			
	<a href="#">Escursi</a>			
	<a href="#">Alea</a>			<a href="#">Tenuta Pinto Mola</a>
	<a href="#">Argento Adriano</a>	<a href="#">ASSET</a>		<a href="#">Cordè ristorante</a>
	<a href="#">Conversano Angelo e Mimmo</a>	<a href="#">Università di Bari</a>		<a href="#">De Amicis ristorante</a>
	<a href="#">Martellotta Leonardo</a>	<a href="#">Gruppo Azione Locale Sud-Est Barese</a>		<a href="#">Hostaria Mola di Baria</a>
<a href="#">Vivere il Mare</a>	<a href="#">Università di Bari - veterinaria</a>		<a href="#">Riviera Bar Bistrot</a>	
<a href="#">Marlin Tremiti</a>				



**FISH MED NET**

	<a href="#">Laboratorio di Mare</a>					
	<a href="#">Centro Comune di Lesina</a>					
<b>Lebanon</b>						
<b>Palestine</b>						<a href="#">Quality Improvemnt</a>
						<a href="#">Contributing to job creation by improving the business capacity of the small and medium-sized fishing sector in Palestine (West Bank &amp; Gaza)</a>
						<a href="#">Business and SMEs development in Palestine (Promote economic and social development)</a>

<p><b>Tunisia</b></p>	<p><b>Coopérative des pêcheurs de la lagune- SPLT-CRDA-ATDEPA:</b> The lagoon is a wetland since 2013 and it contains the small Island (Chikly) the activity consists in recreational activities: tasting lagoon fish - birdwatching</p>	<p><b>Private sector fishermen association:</b> blue crab has invaded southern Tunisian coasts since 2015 and has caused huge losses to fishing gear by artisanal fishermen. The state has since adopted a plan to revive artisanal fishing through the encouragement of private investment in the processing of this alien crab. the state has invested in finding suitable fishing gear for this species. Currently this crab is exported to several destinations and constitutes an important entry of money for the artisanal fishermen who have adapted to this new species.</p>		<p><b>Small Scale Fishermen under the fishermen association:</b> The NEMO project financed by the Italian cooperation agency and managed by the CIHEAM Bari and the Tunisian Ministry of Agriculture provide support to fishers members of the association and follow a specific training to be able to receive a circular grant. This small grant was used to diversify its revenue. Grants were also distributed to fishermen association to improve their service such as Market, ice supply etc</p>
-----------------------	--	---	--	---



## FISH MED NET

**Union of Farmers and fishermen:** The activity intend to accompany the ongoing efforts of Fishermen in Ghar el Melh (coastal lagoon of Ghar el Melh) to diversify their professional activity. in Fact the area is known in the summer to be a highly frequented touristic area for beach goers and fishermen ceased the opportunity to transport and entertain the visitors. This activity has involved in addition to the union of famers and fichermen, local municipality, National Institute of Agronomy of Tunis and WWF Tunisia

**union of Farmers and fishermen:** in the lagoon of Ghar el Melh, WWF in partnership with the National Institute of Agronomy conducted a field survey to find out the views of fishermen on this type of activities, a summer school for engineering students was organised to explore the avenues for diversification.

**Club Bleu Artisanal:** As part of a cross-border project ENI Italy-Tunisia 2007-2013 the initiative aimed to promote and give added value to artisanal fishery products by creating a label "club bleu artisanal" which is a guarantee for the consumer certifying the origin of the product and the respect of the good handling practices during its transport. For this purpose, an android application has been developed to give the possibility to the consumer to have all the details related to the product using a QR code (fishing area, scientific name, etc. link <http://www.clubartisanal.eu/Fr/>)