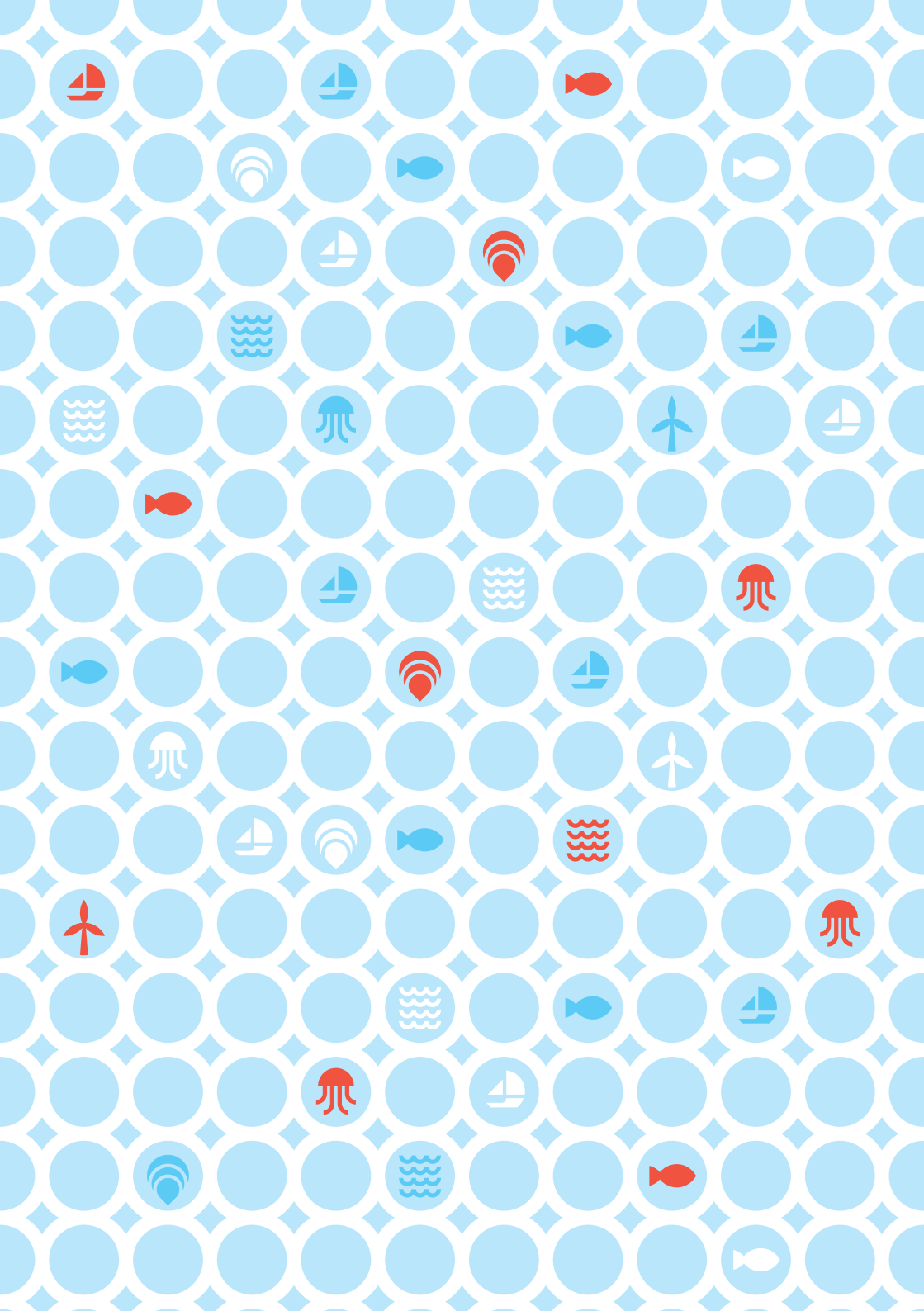


M U L T I
F R A M E

MULTI-USE BLUEPRINT

Artisanal, small-scale fisheries and mangrove restoration –
Transboundary Coastal Fisheries Initiative,
Peru & Ecuador



Location

A transboundary multi-use between artisanal, small-scale fisheries and mangrove restoration takes place in two specific locations in Ecuador and Peru.



Location in Ecuador:

Posorja, Gulf of Guayaquil, Manta and Manabí.

Number of small-scale fishers in Ecuador:

28,510

Source: *Superintendencia de la Economía Popular y Solidaria (SEPS) 2021.*

Small scale fisheries exports per year:

100 million USD

Source: *Conferencia plurinacional e intercultural de soberanía alimentaria.*

Location in Peru:

Piura (Sechura, Manglares de San Pedro de Vice, Virrilá Estuary, Negritos, Illescas National Reserve) and Tumbes.

Number of small – scale fishers:

88,000

Source: *Ministerio de la Producción 2021*

The Ministry of Production (Produce) indicated that artisanal maritime and inland fishing contributed **64.1%** of the total resources for direct human consumption (CHD) to the fishing sector in the last five years.

Nominal artisanal catch registered between 2015 and 2020, fluctuates between **800,000** and **1,200,000** MT. In 2020 Piura records a total of **710,951** MT.

Artisanal fishing in Piura is valued at **676,032,002.14** dollars (**2,578,724,138** soles) per year.

Description

The Coastal Fisheries Initiative in Latin America (CFI) project is implemented in Ecuador and Peru.

The two project locations are rich in fishing resources, biological diversity is high and fishing sector is important to local communities. Nevertheless, the sector has had an uncontrolled expansion driven mainly by an increase in market demand, open access policies and the lack of regulations, surveillance or sanctions. In the face of this, CFI aimed to apply a holistic ecosystem-based management approach towards enhanced management of the Southeast Pacific coastal fisheries.

This is done through the implementation of three components that aim to:

- 1) improve fisheries governance, mainly in artisanal and small-scale fisheries (Mahi mahi, Titi shimp, pustolse ark, mangrove crab and tuna pole and line);
- 2) support authorities in marine and coastal spatial planning;
- 3) exchange experiences and knowledge through spaces for dialogue between key binational stakeholders, as well as documentation and dissemination of lessons learned, and good practices generated during project implementation.

The project promotes the generation of enabling conditions to improve the participatory management of marine ecosystems, especially into mangrove areas. Participatory management encourages the participation of fishing communities in the management of natural areas and sustainable fisheries management.

In participatory management fishing communities are the custodians of the preservation and restoration of ecosystems. The communities are responsible for monitoring the state of the mangrove flora and fauna, and if there is evidence of loss of vegetation or species, they must report it to the environmental authorities so that together they can implement restoration actions.

The project has worked to strengthen the management capacities of fishing communities, local authorities and other stakeholders to improve the sustainable management of fisheries and marine ecosystems in the intervention areas.

Ecotourism has also been promoted in mangrove zones, the project have worked with fishing associations that are in charge of this activity and also with the environmental authority to promote sustainable tourism in the area.

Enabling conditions and tools

Participatory governance

The project promotes the management of natural areas through a participatory approach. This means that communities, the public sector, the private sector and other stakeholders that are related in some way to a natural area can work together to make decisions and take actions for the conservation and preservation of its biodiversity.

It also includes the active participation of communities in the management of natural areas and their resources. In Ecuador, fishermen's associations have an agreement with the Ministry of the Environment for the use

and custody of mangrove areas. Through this agreement, the fishing communities are responsible for the sustainable management and conservation of the mangroves. To this end, they carry out monitoring and surveillance actions, as well as self-imposed closures and other actions that allow them to not only benefit from the extraction of their resources but also ensure the sustainable development of the area.

In Peru, a similar model is being implemented in the Tumbes National Sanctuary, where the Consorcio los Manglares del Noroeste del Peru is the manager of the mangrove zone with the local environmental authority. The Consortium implements actions to regulate resource extraction and monitors the area's flora and fauna.

Regulation

The project has promoted the generation of formal instruments of participatory governance such as: i) National Action Plans for sustainable management of mangrove crab, mahi mahi and pustulose ark in Ecuador, ii) in Peru territorial management agreements signed between fishermen and authorities for the management of mangrove crab and pustulose ark, and iii) management plans for natural areas and coastal marine spatial planning instruments.

Use of technology

Installation of onboard cameras and use of QR code tracking of mahi mahi value chains in order to create a traceability pilot plan, development of electronic systems such as apps, and online platforms for data fisheries and administrative collection to improve management of artisanal fisheries.

Research

The project finances the research for the laboratory production of pustulose ark seeds. This is one of the mangrove's most important resources and right now is considered an endangered species. The investigation purpose is to create pustulose ark seeds in the laboratory and then plant them in the mangrove to support the restocking of this species.

In Perú the “Consorcio los Manglares del Noroeste del Perú” and in Ecuador “Los Isleños association” are involved in this planting and conditioning phase, and oversees transporting, planting, and monitoring the growth of the implanted seeds. The activity aims to have an environmental and a production approach that benefits the ecosystem but also the fishing communities.

According to recent studies by the Peruvian research institute in the Tumbes Mangroves, an increase in the availability of this species from 0.9 to 1.2 per square meter has been observed. However, it is too early to assure that the research has contributed to the totality of these results, but it is estimated to have had an impact on it.

The project has invested around 165 thousand dollars for this research, which will continue to be carried out with funds from other public and private projects, so it is a highly sustainable activity that will have a positive impact on the ecosystem in the future.

Federal Commitment

The commitment of the national government in two countries was of particular importance for the implementation and uptake of the project outcomes. The CFI is executed in Peru by the Ministry of Environment (MINAM), Ministry of Production (PRODUCE), the Regional Governments of Tumbes and Piura (GORE Tumbes, GORE Piura), and in Ecuador by the Ministry of Production, Foreign Trade, Investment and Fisheries (MPCIP) and Ministry of Environment, Water and Ecological Transition (MAATE), through its executing partners World Wildlife Fund for Nature (WWF) and Conservation International (CI) Ecuador. The project in both countries has the technical cooperation of the United Nations Development Programme (UNDP) as the implementing agency of the Global Environment Facility (GEF).

Impacts and positive changes

In Ecuador, the project has contributed to improving participatory governance in five artisanal. To this end, actions have been implemented from different aspects that intervene holistically in governance. On the one hand, the project has worked on the generation or updating of national action plans for fisheries, which are formal documents that regulate the use of fishery resources and aim to promote the sustainable management of marine biodiversity through public policy. Also, participatory monitoring systems have been implemented, in which fishing communities are involved in the collection of data on catches and the status of the species they catch. This data, which is collected by the communities, is shared with the fisheries research institute so that regulatory measures can be adopted with this information,

such as closed seasons, minimum sizes and others that ensure the conservation of the species that are caught. Finally, the project has promoted the implementation of a traceability pilot with the mahi mahi fishery in which cameras have been installed on board to determine the origin of the species, so that both authorities and consumers can be certain that the product that is caught and consumed has a sustainable origin.

To complement these actions, a Coastal Marine Spatial Planning Plan has been developed for the Gulf of Guayaquil, where the capture of fishery resources related to the scope of the project is carried out. For the development of this plan, a promoter group was created with the participation of representatives from the public sector, communities, and the private sector with the purpose of bringing together all the actors involved in a natural area through conservation activities, tourism, and resource extraction to create joint actions for conservation and sustainable use.

With this same holistic management approach, the estimation of the Ocean Health Index in the provinces of Santa Elena and Manabí was carried out, an evaluation that aims to know the state of the oceans in an area in order to use this information to promote the generation of management and public policy measures that are addressed with the different actors that interact in an area.

A similar approach has been taken in Peru, working with governmental actors, communities, and the private sector to promote good governance in the management of artisanal fisheries.

In Peru, 1,258 hectares of mangroves in the Mangrove Tumbes National Sanctuary are protected and conserved through

a community governance system based on the joint action of the authorities and the community of 240 traditional fishers, who formally manage the protected natural area in an organized manner, respecting the regulations of the national authority and a master plan that defines the sustainable development of the area through three strategic axes: environmental, economic, and social.

The Project has promoted participatory research to pustulose ark seed reproduction technology in the laboratory for repopulation purposes, strengthened fishermen's capacities for surveillance and participatory control and monitoring, and added value to different hydrobiological products such as crabs, artisanal shrimp, and other pelagic species.

The project has also made it possible for more than 362 families to access collective financing for productive investments, based on the formation of credit and savings unions led by women and the improvement of the business skills of women entrepreneurs.

The project has also contributed to the modernization of artisanal fishing administration by implementing technological systems for managing processes and generating fishing information, thus contributing to the sector's transparency.

In another area of governance, the project has contributed to generate enabling conditions for approximately 222,000 ha of Sechura Bay in Piura to initiate marine-coastal spatial planning processes. For this, methodology tools for marine spatial planning were developed, also technical capacities of stakeholders have been improved and practical exercises has been carried out. So far, local authorities have been supported in implementing their natural area management plans. This has included the installation of signage, implementation of solid waste man-

agement plans in natural areas, and support has also been provided for the generation of studies that will allow for the re-categorization of three natural areas. The aim of this recategorization is for the environmental authorities to allocate resources for the preservation and conservation of these areas.

In both countries, work has been carried out from a holistic approach and actions have been implemented by the public sector, the private sector and fishing communities. The benefits of implementing actions from the different aspects of governance is that it is understood that in a natural area there are several actors involved, and these actors are obtaining benefits from this ecosystem, so implementing action measures from, for example, only the vision of the authorities will have repercussions in that the actors do not comply with the measures.

Therefore, to take management and sustainable development measures, the participation and voices of the people and actors that intervene in this natural area must be included. This ensures that the measures adopted for the sustainable management of the ecosystem and its resources are respected and promoted by all stakeholders.

Under this same vision, actions should be approached from the conservation, production, social and economic points of view, and only with the participation of all will effective sustainable management be achieved.

Transferability

Environmental degradation due to increased economic demand caused by weak governance structures is not only a problem in the fisheries sectors in Latin America, but it also affects all other sectors extracting common resource goods all over the world. This binational project shows that establishing integrated coastal management plans, using nature-based solution to secure the income of local communities, increasing biodiversity by restoring marine habitats and the actively involving women in men-dominated sectors can only be successful through the creation communities of practice, capacity building and knowledge transfer at regional, local, national, or even global level.

Contacts and links

- **INTERNATIONAL WATERS LEARNING EXCHANGE & RESOURCE NETWORK**
<https://iwlearn.net/iw-projects/9124>
- **Project website**
<https://cfl-la.org/es/>
- **UN Evaluation Report**
<https://erc.undp.org/evaluation/evaluations/detail/8873>
- **Project Video**
<https://www.youtube.com/channel/UCI-MEB0avufmEfqgJIIUqig>



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