



Food and Agriculture  
Organization of the  
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# Coastal Fisheries Initiative

Promoting sustainable  
fisheries in coastal areas

## CFI Talks 3 | Knowledge Sharing

Ecosystem Approach to Fisheries (EAF)  
28 September 2022



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Brief Report



## 1. INTRODUCTION

Event facilitator, Philip Townsley, Science to Policy Expert at the CFI Global Partnership Project (CFI-GPP), introduced the webinar, welcoming participants on behalf of Fatou Sock, Chief Technical Advisor, CFI-GPP. He acknowledged the participants from a range of organizations present and thanked colleagues from CFI Indonesia who have taken the lead in CFI's work on the Ecosystem Approach to Fisheries (EAF). He highlighted the importance of the EAF as an approach that has been at the center of efforts to improve fisheries management worldwide for several decades now. The agencies participating in the CFI are all champions of the EAF, with FAO playing a leading role in promoting and building capacity worldwide for its implementation. It was therefore appropriate that one of the CFI Talks sessions be devoted to the EAF.

The challenges of addressing the EAF were also emphasized. As is inevitable in addressing a multidimensional issue such as fisheries management, the EAF is a complex approach that touches on many different disciplines and issues and therefore is difficult to address in a condensed format such as the CFI Talks. However, it was hoped that the presentations and discussion during the event would stimulate reflection on the EAF and help participants to clarify key issues relating to its implementation.

The facilitator then introduced the first presentation.

## 2. EAF IMPLEMENTATION IN INDONESIA: ITS ROLE IN FISHERIES MANAGEMENT AND LESSONS LEARNED

Dr Fery Sutyan, Coordinator of Fish Resources Management in Inland, Territorial and Archipelagic Seas at Indonesia's Ministry of Marine Affairs (MMAF) presented an overview of the implementation of EAF in the Asian country and some of the lessons learned from the process.

He started off by highlighting the complexity of Indonesian fisheries due to the archipelagic nature of the nation with over 17 000 islands and a population of nearly 250 million. Not surprisingly, Indonesia is a major seafood producer at the global level and fisheries are mostly multi-species, using multiple types of fishing gear and exploiting a range of habitats and ecosystems.

The EAF as implemented in Indonesia addresses all the key domains of the ecosystem approach to fisheries management, taking into account the relationships between fisheries resources, habitats, fishing gear, economic factors, social factors and institutions. The process is commonly referred to as the Ecosystem Approach to Fisheries Management (EAFM) in the country. The process of developing this EAF-based management started with the development of appropriate tools for the evaluation of the performance of EAF management in Indonesian fisheries and a process of adaptation of the EAF concept to the Indonesian context. This has taken account of past management experience in the country, the stakeholders involved in fisheries and current conditions. Capacity building for the implementation of EAF has also played an important role. Based on evaluation of fisheries management conditions, analysis of the current conditions and the development of local capacity, policy recommendations to support the EAF have then been introduced.

Dr Sutyanawan gave a historical timeline of EAF development in Indonesia. Discussions about the introduction of EAFM were initiated in 2010. After the development of EAFM indicators and performance monitoring tools and capacity building for fisheries planners, pilot activities for testing EAFM approaches were initiated in 2013. The process of incorporating EAFM concepts into fisheries regulations started in 2014 with a series of EAFM-based area and species management plans developed from 2015 on. All this work is currently on-going and is being supported by the development of Learning Centers and Fisheries Management Committees to complete the institutional setting for implementing the EAFM. Capacity building activities are particularly important, including the recent training of certified EAFM evaluators.

Dr Sutyanawan provided a particularly instructive overview of the various policy documents, laws and regulations that have been developed in different domains to create the legal and regulatory framework for EAFM implementation. This provided participants with an extremely useful compendium of policy instruments, which included:

- 17 instruments relating to fisheries resources;
- 10 instruments relating to habitats and ecosystems;
- 8 instruments relating to fishing technologies;
- 10 instruments relating to social aspects of fisheries;
- 8 instruments relating to economic aspects of fisheries;
- 8 instruments relating to institutional aspects of fisheries.

Key achievements in EAFM implementation in Indonesia include the establishment of a firm legal basis for the approach, the development of 11 Fisheries Management Areas (FMAs), and the establishment of Fisheries Management Councils (FMCs) and EAFM Learning Centers to support fisheries management throughout the country.

Key challenges include the need for appropriate data on fish stocks given the high diversity of fish species in the country's seas, means of minimizing conflicts between different user groups, establishing mechanisms for regular communication and coordination between key stakeholders and the activation of thematic Working Groups addressing key issues in EAFM.

Following the presentation, a video illustrating some of the work in support of EAFM carried out by the CFI Indonesia project was shown.

The facilitator then thanked Dr Sutyanawan and called participants' attention to the list of instruments for EAF implementation that he had presented as these provide a highly informative example of the range of interventions, measures, policies, and regulations that can be required to support EAF implementation.

### **3. IMPLEMENTATION OF EAF IN LATIN AMERICA: PARTICIPATORY COMMUNITY MECHANISMS**

Mr Townsley then introduced the second presentation by Miguel Maldonado, UNDP Project Coordinator for CFI Latin America. Mr Maldonado's presentation explored the various enabling

conditions in Peru and Ecuador that have contributed to improved fisheries governance according to EAF principles.

Among these key enabling factors has been the strengthening of mechanisms for participatory governance in the two countries. In Ecuador, National Action Plans for different fisheries have been approved and launched while in Peru agreements on co-management arrangements have also been formalized and implemented. Simultaneously, in both countries, increased room for dialogue around fisheries issues has been developed. These conditions have facilitated the implementation of the key processes underpinning improved fisheries governance such as participatory monitoring, resource management, control and surveillance, and decision-making, the formalization of fisher organizations, and sustainable use patterns for natural resources. The various mechanisms and instruments for fisheries governance implemented by CFI Latin America, such as the community co-management of the Tumbes National Mangrove Sanctuary in Peru and the development of participatory governance arrangements for 5 fisheries in Ecuador, have been built on these foundations.

The process of modernization of the fisheries administration, and particularly the administration of artisanal fisheries, through the digitalization of key processes and information systems, has also played a key enabling role by reducing transaction costs within fisheries administrations and enhancing data traceability and control.

Other key enabling factors have been the mainstreaming of participatory research processes that have encouraged the implementation of research on, for example, the culture of the much-sought-after *concha negra* or black ark clams (*Anadara tuberculosa*) to restock mangrove areas. The strengthening of entrepreneurial skills in the fisheries sector has also played an important role. Fishers in both Ecuador and Peru are developing labelling schemes for key species such as *concha negra* and mahi-mahi (*Coryphaena hippurus*) that take advantage of improved traceability in the value chain, better organization among fishers and improved technology.

At the level of planning processes for the fisheries sector, the increased use of accepted methodologies for Marine Spatial Planning, supported by capacity strengthening through a local community of practice, has fed into a series of coastal zone management plans supported by CFI in Sechura, Peru and the Gulf of Guayaquil in Ecuador and the use of the Ocean Health Index in both countries. In Peru, the strengthening of local management committees has also facilitated planning for the identification and protection of key natural habitats.

Mr Maldonado also emphasized the important role of capacity building in creating appropriate conditions for improved fisheries management.

Capacity building to increase gender awareness and improve gender relations in the sector and strengthen the role of women involved in fisheries value chains has been particularly important. A range of activities undertaken by CFI, including work with community-based Credit and Savings Unions (UNICAs) in Peru, involving a high proportion of women from fishing communities, a series of gender awareness courses and the establishment of gender focal points in key local institutions have all built on the availability of appropriate tools for addressing gender issues. Similarly, tools for

improving environmental education and the dissemination of good practices in environmental management have also supported increased environmental awareness and attention to environmental issues in Peru. This has included the development of environmental education modules for school children and teachers in Peru, support to communication campaigns and supporting fishers to participate in seafood fairs. Support to information and knowledge exchange programs has also contributed to this capacity building process.

The facilitator highlighted how both this presentation and the previous one had stressed that the interaction between different aspects of policy, institutions and technical support is essential to supporting EAF implementation.

After the presentation, a video was aired illustrating some of the work conducted by CFI Latin America on fisheries governance in Peru and Ecuador.

#### **4. The FISHERIES MANAGEMENT CYCLE: LESSONS LEARNED FROM EAF IMPLEMENTATION IN WEST AFRICA**

Matthieu Bernadon, Senior Advisor on the FAO EAF-Nansen Project, then presented an overview of key learning from the project, which has been promoting the EAF in a range of African countries since 2008.

Mr Bernadon started by illustrating how the fisheries management process is made up of three nested levels: a long-term strategic management cycle that lays out high-level goals and policy; a medium-term operational management cycle that develops operational plans for management; and a short-term implementation cycle that is concerned with executing management plans and monitoring, control and surveillance (MCS).

As in the previous contributions, Mr Bernadon then highlighted how a range of interacting interventions have played an important role in supporting EAF implementation in Africa. These include the collection and management of appropriate data to support decision-making; access to and use of that data for decision-making; understanding the policy and legal context for fisheries management in the region; undertaking climate change vulnerability assessments; the development of appropriate monitoring tools for the implementation of EAF; and the development of EAF-based management plans.

A set of EAF tools produced by the FAO to support EAF implementation have been particularly important: a How-to guide on legislating for an Ecosystem Approach to Fisheries, a diagnostic tool looking at the policy and legal frameworks for EAF, and the EAF Implementation Monitoring Tool.

Mr Bernadon illustrated how these tools have been applied to two fisheries on which the EAF-Nansen Project has focused: the beach seine fishery in four countries on the Gulf of Guinea and the sardinella fishery in Senegal. In the case of the beach seine fishery, the EAF Implementation Monitoring Tool (IMT) was used to determine how the process of developing appropriate management plans is progressing and has contributed to a regularly updated EAF management plan for the fishery. In the case of the sardinella fishery in Senegal, a combination of capacity building

activities focusing on data collection methods on biological, social, economic and fisheries aspects has been an important starting point. This capacity building process was then supported by scientific studies, data collection exercises and support to the subsequent data analysis conducted by the project. All of this has contributed to the development of a national sardinella management plan.

The EAF requires engagement at a range of levels. Capacity building and participatory processes that engage local stakeholders are key to the development of an EAF-based fisheries management plan. However, this needs to be supported by the collection and analysis of appropriate data and a national-level fisheries management committee that will play a key role in identifying possible management responses based on scientific analysis of the fisheries concerned.

To summarize, Mr Bernadon discussed the nature of an enabling environment for EAF. Given the timeframes typically involved in establishing effective fisheries management processes, it was highlighted how capacity building efforts have to be committed to on a long-term basis to ensure continuity in management efforts. This long-term commitment to strengthening management capacity needs to be complemented by adequate resource allocation particularly for research into the biological, social, economic and institutional aspects of fisheries. The political will to drive forward the process of establishing EAF-based fisheries management is important, particularly where different interest groups may oppose some management measures and the identification and cultivation of local champions of EAF management may play an important role to both ensure political will and maintain a long-term perspective on the management process. The establishment of research capacity to generate the information needed to properly support management decisions may take time, but the EAF process should make use of whatever is the best information available to support decision-making, whether that be scientific information or traditional knowledge about fisheries. The lack of scientific data should not become an excuse for avoiding decisions on fisheries management measures. Extending the management process beyond national borders to take account of regional interactions is also likely to be critically important. EAF management processes therefore need to operate at regional as well as national and local levels as many stocks are likely to be shared across national borders.

## **5. EVENT ANNOUNCEMENT**

At the end of the last presentation, the facilitator asked Mimako Kobayashi, Head of the World Bank-led CFI Challenge Fund (CFI-CF) team, to remind participants about the event being held on the following day – Thursday, 29 September – to present the winners and runners-up of the CFI-CF Global Knowledge Competition. Over the last 18 months, this competition has been encouraging and mentoring coalitions of stakeholders in coastal fisheries from Cabo Verde, Ecuador, Indonesia and Peru to develop innovative proposals for addressing the problem of overfishing in coastal waters. The event will give winners and runners-up the opportunity to present their proposals to a wide audience of potential investors and financiers as well as CFI participants. Participation was therefore highly recommended as an opportunity to learn about innovative ideas for improved coastal fisheries management and, specifically, potential solutions to overfishing. To learn more, participants were encouraged to visit the relevant website: [www.solutionstooverfishing.org](http://www.solutionstooverfishing.org). It was

also mentioned that future CFI Talks will provide an opportunity to discuss some of the proposals presented in greater depth.

## **6. PANEL DISCUSSION**

The facilitator, Mr Townsley, then initiated a panel discussion involving the three presenters. To start with, he asked Dr Sutyanan from CFI Indonesia about the extent to which he felt that the country's experience with EAFM had generated positive impacts from the viewpoint of people in fishing communities so far. Dr Sutyanan responded that perhaps the most notable impact that they have seen has been in attitudes among fishers. In those areas where EAF-based management plans have been developed, accompanied by capacity building activities among local communities and stakeholders, general awareness of sustainability issues relating to fisheries has greatly increased and this has led to far greater attention to responsible fisheries practices and the protection of critical habitats. The importance of continuous communication with fisheries stakeholders was also emphasized.

Mr Maldonado from CFI-LA was then asked how fisheries institutions in Ecuador and Peru have approached the process of communicating about EAF with fishing communities, given its complexity. Mr Maldonado emphasized that the key to achieving proper understanding is to work closely with community members from the very start and to involve them in decision-making. There are no magic bullets from the point of view of communication, but it is that closeness between scientists, institutions and local communities that generates a real internalization of the meaning of fisheries management in general and the EAF in particular. It is only by implementing the approach that people can understand the meaning of the approach.

Mr Bernardon from the EAF-Nansen Project was then asked to highlight what he felt were the key features of the context in different countries that seemed to him to play an important role in supporting EAF implementation. He reiterated some of the points already touched upon in his presentation, including adequate support from professional agencies in developing management and capacity building for EAF implementation. The need for supporting programmes that take a long-term perspective toward fisheries management and the importance of sustained investment in fisheries management were also emphasized. Support from champions who will ensure continued interest among key institutions and the maintenance of the political will to drive through new legislation and regulatory frameworks is also key.

CFI-GPP Coordinator and FAO Fishery Officer Fatou Sock asked whether some of the key legal texts relating to EAF in Indonesia might be available in English as they could be informative for West African countries that are currently working on legal frameworks for the EAF. Dr Sutyanan said that the texts are all in Indonesian, but it may be possible to develop summaries of their key points if the specific documents that are of interest can be requested.

Mr Jimmy Kalther, CFI Indonesia Coordinator from WWF, mentioned that he had been involved in publishing a paper in 2017 that describes some of the key elements in the legal and policy framework for EAF in Indonesia. He emphasized how all the different stakeholders involved in the

fisheries sector in Indonesia, including fishers, private sector operators, value chain operators and administrators and NGOs, now accept the EAF as a framework for analyzing and discussing fisheries-related issues.

## **7. SUMMARY AND WRAP UP**

Mr Townsley provided a short summary of the discussions and presentations during the day. He called participants' attention to how the three presentations had highlighted the different dimensions of EAF and the need to engage with all these dimensions when developing and implementing EAF-based management.

The presentation by Dr Sutyanan on Indonesia's experience with the EAF had illustrated very well a process for EAF development and implementation and, in particular, presented a compendium of some of the different policy, legal and regulatory instruments that have helped to set the scene for that implementation. Coming from a country such as Indonesia where the numbers of fishers involved and the diversity of fisheries are very high, this was particularly valuable and informative.

Mr Maldonado's presentation on the participatory approaches to EAF used in Ecuador and Peru also highlighted the interactions between different levels of activities in support of EAF implementation and the importance of EAF approaches being properly contextualised within the legal, regulatory and policy frameworks in different countries and within ongoing development processes. The mainstreaming of participatory and collaborative approaches to decision-making on natural resource management has been particularly important in creating an appropriate environment for effective EAF implementation that engages with communities on resource use.

Mr Bernardon presented the different levels involved in fisheries management ranging from the strategic long-term level to more short-term localized interventions and the importance of taking all of these levels into account. The interplay between these 'nested' management cycles can be particularly important when considering the levels of investment required in fisheries management. Policymakers need to be convinced that investment in fisheries management will generate concrete benefits and marshalling the evidence that will convince them that small-scale and coastal fisheries will generate these benefits if they are managed properly can be challenging. But ensuring sustainable investment is key if the EAF is to realize the full potential of fisheries to contribute to food security, livelihoods, and sustainable development.

Mr Townsley brought the session to a close and thanked all the presenters, organizers and participants.



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