

Capacity development for implementation of an Ecosystem approach to fisheries and aquaculture (EAF/EAA) in member countries, focusing on aquaculture-fisheries interactions

The ecosystem approach to fisheries (EAF) and aquaculture (EAA) are holistic strategies for managing capture fisheries and aquaculture that integrate their ecological, socio-economic and institutional dimensions and facilitate sustainable use of natural resources and integration with other users of coastal ecosystems. The EAF and EAA are considered relevant strategies to enhance adoption and implementation of the FAO Code of Conduct for Responsible Fisheries (Code). FAO has been working on several pilot case studies in different countries to assist the practical implementation of EAA and EAF focusing on situations where there are strong interactions between both subsectors and joint integrated management plans are needed.

The main objective of such pilot activities is to address sustainability issues at ground level by involving stakeholder participation, creating ownership and facilitating behaviour changes of coastal communities, private sector and governments through improved understanding of ecosystems carrying capacity (including social elements) and the need to balance the socioeconomic, the environmental and the governance objectives in the planning and management of aquatic resources.

Key Progress

Introduction of the [Ecosystems Approach in Lake Malawi](#) is expected to boost fish production and access to fish by national and local populations while at the same time conserving biodiversity, safeguarding ecosystems services and building resilience to climate change.



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Main Outcomes and Results

Government, institutions and local stakeholders become aware of the benefits of implementing an ecosystem approach to fisheries and aquaculture to ensure sustainable provision of ecosystem services while improving food security and livelihoods in Nicaragua and in lake Malawi (pilot implementations), in Central America, in selected African countries (dedicated training) and globally through publications and dissemination activities.

Main results include: i) understanding and capacity on methodologies and tools to implement an ecosystem approach are strengthened; ii) ownership of the implementation process is developed; iii) policy making ability is improved and synergies created with other sectors and stakeholders; iv) participatory management plans for fisheries and aquaculture are developed to address the environmental, social and economic dimensions of sustainability, through improved governance; v) the process is documented to guide further implementation in member countries.

Project component and activities to continue under SO2, but also relevant to SO3, SO4 and SO5.

EAF EAA pilot implementation in Nicaragua, Estero Real

The “Estero Real”, a tropical mangrove estuary on the Pacific coast of Nicaragua is a RAMSAR Convention on Wetlands site since 2003, but is suffering environmental degradation and also holds some of the poorest communities in the country. Natural resources are used for survival and livelihoods but also for the industrial production of shrimp. Large-scale shrimp farming coexists with small-scale farmers’ cooperatives and with small-scale fishers. EAF/EAA implementation activities have been carried out by INPESCA (The Fisheries and Aquaculture Institute of Nicaragua), with the collaboration of MARENA (Ministry of Environment) and with FAO technical support from November 2009 until 2014 and involve a very participatory approach. The implementation steps, included the identification of highest risk issues concerning fisheries and aquaculture, agreement on management measures and tools, and developing a management plan, targets and indicators. The current agreed

management plan includes a programme to improve environmental performance in shrimp farming; implementation of integrated aquatic monitoring systems to assess local impacts and effects of climate change and other external drivers; a programme for the reconversion of fishermen to the shrimp farming value chain; a programme to improve local governance and inter-institutional linkages; and an extension and communication programme. The implementation of the management plan is moving forward slowly but with strong ownership, gender inclusion, political will and improved public-private cooperation

Initial implementation steps in Central America countries

Through training workshops and elaboration of relevant documents there has been a strong sensitization of key stakeholders from the 8 Central America countries with the support and collaboration of the Central America Fisheries and Aquaculture Organization (OSPESCA). As a main result OSPESCA has produced a comprehensive EAF EAA management plan for shrimp fisheries and aquaculture in the region that is looking for support to implementation.

Key stakeholders in Africa on EAF/EAA are familiarized with the EAF EAA, specially focusing on inland fisheries and aquaculture

Through initial implementation steps and training workshops, awareness of the main concepts and benefits of the ecosystem approach has been raised in several countries in Africa including an initial EAF/EAA workshop for the Lake Volta Basin, a regional training workshop in Accra, Ghana, in collaboration with partners from 26 countries, and a regional workshop on developing aquaculture as business under the EAA framework held in Lusaka, Zambia with the participation of 16 African countries.

EAF EAA pilot implementation in Lake Malawi and lake Malombe, Malawi.

Lake Malawi, one Africa’s largest lakes is shared by three countries and is one of the world’s premier spots for freshwater fish biodiversity. At the same time Malawi is one of the most challenged countries in Africa in terms of food security and there is a need to increase fish production and access to fish

by the national and local populations while at the same time conserving and protecting biodiversity. An inception EAF EAA workshop in Malawi took place in late May 2013 and a management plan is being developed under the leadership of the Malawi Fisheries and Aquaculture Authority and with the assistance of a National University.

Sensitization and improved understanding of the EA framework and implementation steps is also being achieved through the translation of documents into the local language. Broader understanding of how of EAF and EAA benefit fish harvest and production while conserving biodiversity, ecosystem services and building resilience to climate change threats is being achieved at national and local level in the southern part of Lake Malawi and lake Malombe. The inclusion of fisheries and aquaculture in the broader food security policy process and in climate change adaptation is improving as a result of the project’s initial activities. Broader understanding of the need and benefit of an EAA for sustainable aquaculture growth in the lake considering the need to conserve and even recover fish biodiversity is a key outcome.

Key publications and tools to assist implementation of EAA

Several publications and tools are needed to assist the implementation of the EAA (and also to match those produced for EAF) including guidelines translated to the required languages (e.g. Spanish and French), the Aquaculture tool box and EAA Tool box web, and other technical publications such as manuals and guidelines for aquaculture zoning and site selection within an EAA have been produced. Relevant publications in Spanish have also been produced to illustrate the EAF EAA implementation process in Nicaragua and the baseline situation and management plan produced for shrimp fisheries and aquaculture in Central America

Pilot implementations need to continue in all the above cases and the support of donors and other partners is sought to accompany the process but also to replicate successes in other countries and regions.

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