



# THE **EAF-NANSEN** PROJECT

**Strengthening the *knowledge base* for and  
implementing an *ecosystem approach* to  
marine fisheries in developing countries**

**Assisting developing countries to implement the ecosystem approach to fisheries**



Photo: Günther Kornick

## There is worldwide acceptance of the need to expand fisheries management objectives to include ecosystem considerations.

The long-term objective of the EAF-Nansen project is to strengthen efforts to reduce poverty and assist in the achievement of food security by developing sustainable fisheries management regimes through the application of the Ecosystem Approach to Fisheries.

The immediate objective of the EAF-Nansen project is to provide fisheries research institutions and management administrations in participating countries with additional knowledge on their ecosystems for use in planning and monitoring.

The EAF-Nansen project strives to further the acceptance of EAF principles:

- fisheries should be managed to limit their impact on the ecosystem to an acceptable level;
- ecological relationships between species should be maintained;
- management measures should be compatible across the entire distribution of the resource;
- precaution in decision-making and action is needed because the knowledge on ecosystems is incomplete;
- governance should ensure both human and ecosystem well-being and equity.

## Research vessel *Dr Fridtjof Nansen*

The *Dr Fridtjof Nansen* is one of the most advanced research vessels in the world. It is named after the Norwegian explorer, scientist and humanitarian who, in the late 1800s, made important discoveries in several aspects of modern marine research, particularly physical oceanography. Dr Fridtjof Nansen was awarded the Nobel Peace Prize in 1922 for his work as a League of Nations High Commissioner.

Since 1975, the *Dr Fridtjof Nansen* has carried out oceanographic and fisheries surveys in developing countries in cooperation with FAO. It is a vitally important instrument for expanding the knowledge base on marine ecosystems and strengthening the links between science and fisheries management in counties and regions that are not in a position to run their own research vessel.

*Dr Fridtjof Nansen* is owned by the Norwegian Agency for Development Cooperation (Norad) and staffed and operated by the Norwegian Institute of Marine Research (IMR). The use of the United Nations flag facilitates operations across jurisdictional boundaries.



Photo: Charine Collins





Photo: BCLME Programme



Photo: Birdlife SA

# The EAF-Nansen project

The EAF-Nansen project is structured into five components, each with planned activities and expected outcomes. A brief description of the project's five components is provided on the following two pages.

## Component 1: Policy and management

Countries that are serious about implementing an ecosystem approach to fisheries require policies and management plans that include EAF considerations. The EAF-Nansen project is providing support for countries to amend and update policies, and to develop and implement fisheries management plans that are consistent with EAF. For example, the project is:

- Running regional workshops to introduce participating countries to the concepts and principles relevant to the implementation of an ecosystem approach to fisheries.
- Introducing the ecological risk assessment methodology – a critical building block in the preparation of fisheries management plans consistent with EAF.
- Helping countries to develop or amend legislation to include EAF principles.

## Component 2: Ecosystem assessment and monitoring

The introduction of EAF principles into fisheries management requires an expanded knowledge base. The EAF-Nansen project is assisting participating countries to collect information on the present state of the ecosystem and, where earlier data exist, helping them to monitor trends and develop appropriate fishery and ecosystem management strategies. For example, the EAF-Nansen project is:

- Using the research vessel *Dr Fridtjof Nansen* to carry out resource and ecosystem surveys.
- Assisting participating countries to standardise data collection and data storage methods and procedures.
- Establishing or strengthening regional and international scientific working groups.

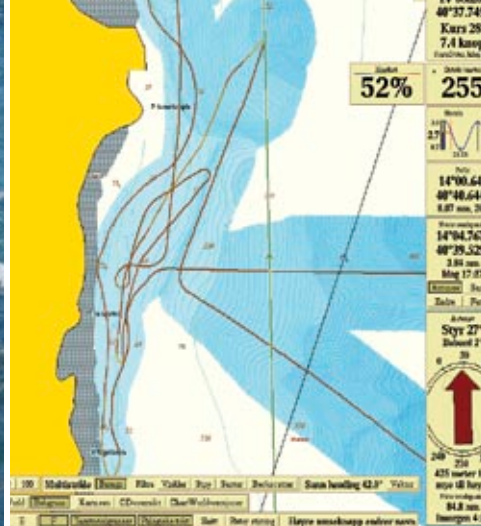


Photo: BCLME Programme

The ecosystem approach to fisheries is a concept that includes the precautionary approach, ecosystem management and biodiversity considerations, while focusing on human wellbeing and equity.







### Component 3: **Capacity building**

The capacity to collect, analyse and use information about the state of the ecosystem is often unavailable or inadequate in developing countries. Therefore, the EAF-Nansen project includes a substantial training and capacity building component. For example:

- Since 2007, over 250 scientists from participating countries have taken part in ecosystem surveys on the *Dr Fridtjof Nansen*. Many have gained valuable experience in data collection and sampling methods appropriate to EAF.
- Training courses and workshops aimed at assisting fisheries scientists and managers to include EAF considerations in the management process are underway.
- In collaboration with the Department of Oceanography and Fisheries at the University of Ghana, the project has initiated a course on EAF. A similar course will soon be run in French.

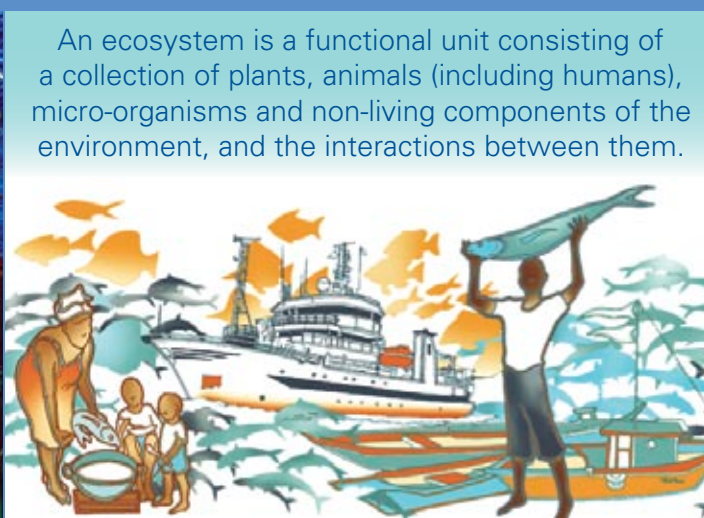
### Component 4: **Support to regional research vessels**

The EAF-Nansen project is assisting participating countries to optimise the use of national or regional research vessels. The project provides technical assistance to local institutions, helping them to choose appropriate equipment for ecosystem surveys, plan and coordinate EAF-related research surveys and train scientists and technicians in survey methodology and data analysis.

### Component 5: **Planning and dissemination**

Familiarising the participating countries with the concept of EAF and increasing awareness of EAF principles is one of the key objectives of the EAF-Nansen project. To this end, the project:

- Organises an annual forum.
- Has operationalised four regional steering committees.
- Circulates technical guidelines, training material and information pertaining to the implementation of EAF.
- Disseminates "lessons learned" through participation in national, regional and international symposia.



An ecosystem is a functional unit consisting of a collection of plants, animals (including humans), micro-organisms and non-living components of the environment, and the interactions between them.



## The ecosystem approach to fisheries

Over-fishing, degradation of ecosystems and conflicts over fisheries management and trade all threaten the long-term sustainability of fisheries.

Over the past 10 years, the global approach to fisheries management has shifted dramatically. New approaches have developed out of concerns that traditional fisheries management – which tended to focus on a single, target species – have failed.

We now know that fishing impacts the target stock and other parts of the ecosystem.

Another major weakness of the single species approach is that target stocks are affected by fishing and other factors such as loss of critical habitat (e.g. through coastal zone development and pollution). They will also be affected by changes in abundance of predators and prey which could be caused by other fisheries, and they can be heavily affected by climate change.

These realisations have led to global calls for the implementation of the ecosystem approach to fisheries (EAF). The key objective of EAF is the sustainable use of the whole system and not just targeted species.

## What is EAF?

EAF represents the marriage of two different perspectives: **ecosystem management** and **fisheries management**.

The main purpose of EAF is to plan, develop and manage fisheries in a manner that addresses the multiple needs and desires of societies, without jeopardising the options for future generations to benefit from the full range of goods and services provided by marine ecosystems.

The key objective of EAF is sustainable use of the whole system and not just targeted species. EAF recognises that to sustain or improve the condition of ecosystems and their productivity is essential for maintaining or increasing the quality and value of fisheries production.

EAF recognises that humans are an integral component of the ecosystem and that the many interests of people in fisheries and marine ecosystems have to be addressed.





Photo: Günther Kornnack

The EAF-Nansen project is a partnership between the Norwegian Agency for Development Cooperation (Norad), the Norwegian Institute of Marine Research (IMR), and the Food and Agriculture Organization of the United Nations (FAO). Through a tripartite agreement, these three organisations are supporting developing countries in their efforts to fulfil their commitments and implement an ecosystem approach to fisheries.

The EAF-Nansen project is closely associated with Large Marine Ecosystem (LME) projects and other regional projects funded by the Global Environment Facility (GEF), specifically the:

- Canary Current LME
- Guinea Current LME
- Benguela Current LME
- Agulhas and Somali Currents LME
- The South West Indian Ocean Fisheries project

Project partners are the government institutions in the participating countries, the GEF-supported LME projects in sub-Saharan Africa and other regional projects and programmes that can contribute to meeting the objectives of the EAF-Nansen project.



The EAF-Nansen project operates from FAO Headquarters in Rome. For more information contact:

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**Assisting developing countries to implement the ecosystem approach to fisheries**