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PROMOTING ECOSYSTEM APPROACH

Research vessel promotes ecosystem approach

WORKING FOR fisheries administrations and institutions of 32 coastal countries of Africa

WORKING TO increase national and regional capacity to manage fisheries in marine ecosystems

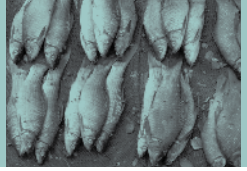
WORKING WITH Government of Norway

WORKING THANKS TO funding from Norwegian Agency for Development Cooperation

The marine research vessel *Dr Fridtjof Nansen,* named for the Norwegian explorer and humanitarian who received the 1922 Nobel Peace Prize, edges along the northwest African coastline using 3-D imagery to map the seabed, gathering data that goes well beyond the traditional fisheries surveys that count fish stocks. Staffed by scientists of the Institute of Marine Research of Norway and participating coastal African countries, the vessel surveys the entire marine ecosystem, noting the impact of external pressures such as pollution, climate-related changes and overfishing, and their consequences on coastal communities. Once the data is gathered, the Nansen scientists share it with national and regional officials responsible for fisheries and coastal management who can factor the information into fisheries management plans following an approach that balances ecosystem and human well-being objectives. This is all part of the EAF-Nansen Project, the latest phase of a collaboration between FAO and Norway that began more than 35 years ago.

FAO plays a unique role in the EAF-Nansen Project, acting as an information broker between marine researchers at sea and on land and fisheries administrators who are responsible for fisheries and coastal management. FAO provides training and support to ensure that the scientists from African countries who participate in surveys conducted by the *Dr Fridtjof Nansen* research vessel can gather the data they need. Support also goes to those on the ground – local and national fisheries managers, NGOs, community representatives, marine biologists, Regional Fisheries Bodies and artisanal and commercial fishers – to ensure that they have the knowhow necessary for sustainable fisheries, ranging from scientific data analyses to establishing sustainable fisheries management processes that are participatory, equitable and comprehensive.

To support the process, FAO has set up and supports task groups in 32 African countries with the overall goal of enhancing their ability to undertake their own assessments and prepare fisheries management plans tailored to their specific national needs. With FAO's guidance, for example, Sierra Leone, Liberia, Tanzania and Seychelles are designing management plans for their artisanal fisheries. Ivory Coast, Ghana, Togo and Benin seek ways to minimize damage caused by their beach seine fisheries. Nigeria, Cameroon, Gabon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and Mozambique are especially interested in ensuring sustainable industrial shrimp fisheries.

When the Nansen began surveying the maritime waters of developing countries in 1975, the world's fisheries resources were abundant. Newly independent nations were eager to know how much of these resources were available to them and primarily sought data and information to set fishing quotas and establish viable commercial fisheries. FAO itself operated a fleet of about 120 boats around the world for research and development. That was before the impact of increasing population and consumer demand led to expansion of the global fishing fleet and, in turn, depletion of fish resources. That, combined with coastal development, increasing pollution and changing global climates have made the world's marine ecosystems among the planet's most vulnerable. Over the decades, FAO has adapted its activities in parallel with the changes to the world's fisheries resource.

African scientists participate

FAO sponsors African country scientists to join in the Nansen's surveys, not as observers but as participants in the survey's design and execution. On land, it offers workshops to raise the capacity of national scientists and managers to interpret the Nansen data together with other information from the fisheries or other sources and incorporate it into their fishery management systems, and offers overview to ensure management plans prepared by the national experts are consistent with international standards and in line with the ecosystem approach to fisheries. Often several countries fish the same resource so FAO sets up regional mechanisms to ensure that neighbouring countries set compatible fisheries regulations – avoiding transboundary problems such as one country calling for the use of 30 mm mesh nets and a neighboring country calling for 20 mm mesh nets.


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Partnership – national, regional and international – is central in the delivery of the EAF-Nansen project. FAO works with three African universities to offer courses on the ecosystem approach to fisheries. This is producing a new calibre of fisheries scientists and managers who understand the value and functioning of marine ecosystems and are instrumental in making necessary changes in the management of fishery resources in their countries. Future scientists and managers have not been left out of this effort; school children in Senegal and The Gambia are being sensitized on the importance of healthy seas for people and sustainable fisheries.

Ecosystem focus

In late 2011, the Nansen sailed from Guinea-Conakry to Morocco for 62 days surveying the Canary Current Large Marine Ecosystem – an ecosystem that provides food for coastal countries while its mangroves provide wood and its coastal lands support agriculture, aquaculture, urban development, tourism and transport. The data from the survey will help determine the level of resource degradation and increase understanding of how climate-related changes impact on fish habitats, distribution and abundance. The survey will also provide a baseline to measure any future climate-related changes in the oceans, especially those bordering developing countries. In 2008, the Nansen undertook a similar expedition in the Southwestern Indian Ocean and has carried out others around Southwest Africa and in the Gulf of Guinea.

The project's marine data gathering and its land-based data sharing have combined to increase national and regional understanding of the need to maintain healthy ecosystems and the role of an ecosystem approach in making fisheries sustainable. Moving ahead, the project will work together with other UN agencies towards creating a common platform to monitor climate-related changes in the oceans, especially of developing countries that lack the capacity to undertake such a task by themselves.