

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 organizations are supporting developing countries in their efforts to fulfil their commitments and implement an ecosystem approach to fisheries.



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Norad



**Building capacity for fisheries research and management in developing countries**



# **NANSEN PROGRAMME**

## **Building capacity for fisheries research and management in developing countries**

**1974~2014**

**A Commemorative Brochure**

EAF-Nansen Project Side Event 31<sup>ST</sup> SESSION OF THE FAO COMMITTEE ON FISHERIES

# FOREWORD

The year 2014 marks the 40<sup>th</sup> anniversary of the Nansen Programme funded by the Norwegian Agency for Development Cooperation (Norad) and executed in a partnership between the Norwegian Institute of Marine Research (IMR) and the Food and Agriculture Organization of the United Nations (FAO).

The first marine research vessel *Dr Fridtjof Nansen* around which the Programme was built, was commissioned in October 1974. In the 1970s and 1980s, fisheries in developing regions were supported by large-scale funding from FAO/UNDP programmes and the vessel worked in partnership with them. The period coincided with the establishment of Exclusive Economic Zones (EEZs) by many coastal countries and there was great interest in obtaining accurate knowledge about the resources in these zones. Over the years the Programme has developed into a unique mechanism for cooperation, knowledge and human resources exchange in the developing world, particularly in Africa.

In the EAF-Nansen Project (the present Programme) side event of the 31<sup>st</sup> Session of the FAO Committee on Fisheries, this important milestone is marked. It comes at an opportune time when the contract for a new vessel has just been signed and a new phase of the Programme is under development. This commemorative brochure highlights the Programme's key achievements. The vessels that have been the nucleus are also described and the focus of the future Programme is presented.

We would like to thank all partners – institutions, programmes/projects and individuals – and also officers of Norad, FAO and IMR for their immense contributions over the years, without which the Nansen story would not be what it is today.



*Dr Kwame Koranteng*  
Project Coordinator

# The Nansen Programme/EAF-Nansen Project

The roots of the EAF-Nansen Project go back to 1963 when it was proposed by Mr Klaus Sunnanå, Norway's then Director of Fisheries to make available a Norwegian-manned research vessel that would partner with developing countries to obtain information for the management of their fisheries. In 1974 the first research vessel was launched and the Programme has been implemented in phases.

## Phase One (1975–1980)

The surveys focused on investigating largely unknown areas to ascertain the distribution, composition and magnitude of the fish stocks in those waters.

The vessel carried out surveys in the Atlantic and Indian Oceans, the Arabian, the Red and the Mediterranean Seas. Similar studies were carried out off the Pacific coast of Central America and the North coast of South America. The surveys found new fishery resources and also identified where stocks were depleted.

## Phase Two (1981–1990)

In 1981 the Programme entered its second phase, which focused on detailed mapping of fishery resources within the EEZs of beneficiary countries. The vessel was deployed in coastal waters throughout the Western Indian Ocean, the Eastern and Western tropical Atlantic Ocean and the Eastern Central Pacific Ocean.

## Phase Three (1991–2005)

The Programme moved to focusing on resources and environmental monitoring particularly in Southwest Africa (Namibia, Angola and South Africa) and in Northwest Africa (Senegal, Gambia, Mauritania and Morocco). During this phase, capacity development in fishery research and management became integral parts of the Programme.

## Phase Four (2006–2011)

This saw the transformation to the EAF-Nansen Project managed directly by FAO, following the FAO Committee on Fisheries endorsement of the ecosystem approach to fisheries (EAF) as practical implementation of the Code of Conduct for Responsible Fisheries.

From 2012, a Transition Phase was begun within which a new vessel was to be constructed and a new phase planned.

The areas where the Programme's research vessels have carried out surveys are shown in the figure on the right.



Norwegian newspaper (October 1975)



# Four decades of achievement



*Gunnar Sætersdal played a key role in the conception of the programme and led its development throughout*

A recent evaluation concluded that groundbreaking progress has been made in the adoption of the FAO Code of Conduct for Responsible Fisheries.

It was noted that the Project is also in line with the Norwegian development policy objectives, with FAO Strategic Objectives, and FAO's Member Countries demand for support to implement the ecosystem approach to fisheries. It was also acknowledged that the Project has been very effective at developing and strengthening partnerships at pan-African, sub-regional and national levels and that African Regional Fisheries Bodies are becoming better linked to the Project.

## Developing human capacity for marine and fisheries research and management

To date the vessel has carried out surveys in over 60 countries and collected vast amounts of data from otherwise data-poor regions. In all the surveys, scientists from the beneficiary countries have received hands-on training in survey design, implementation, analysis and report writing.

On average, there are eight to 10 surveys a year over 270 survey days involving about 80 participants from developing countries.

Scientists and managers who received training either on the vessel or in universities in Norway are heading or holding key positions in many fisheries agencies, particularly in Africa. To date, over 100 MSc and PhD theses have been prepared through institutional cooperation with the Programme and using data from the surveys.

## Facilitating management of marine resources

The presence of the R/V *Dr Fridtjof Nansen* in the waters of beneficiary countries has resulted in greater understanding of the need to manage marine resources.



"The Project has assisted Mauritius to develop a management plan for the Saya de Malha and Nazareth Banks fisheries by providing training to our officers in the EAF process. Also data and information from the Nansen surveys have helped to better understand the oceanographic processes in our region, identify new fisheries resources and build up capacity in conducting fisheries surveys including data collection and survey methods."

*Mr Daroomalingum Mauree*  
(Director of Fisheries, Mauritius)

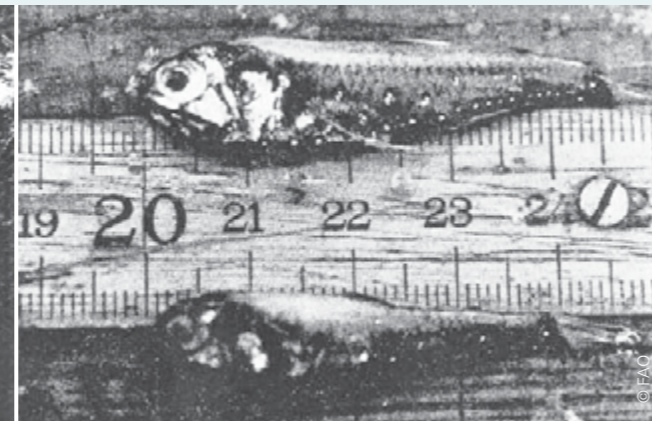
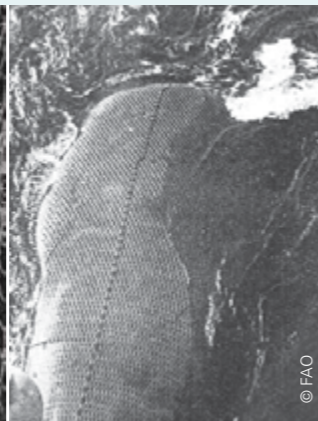


"The EAF-Nansen Project and the South West Indian Ocean Fisheries Project (SWIOFP) collaborated effectively with the fisheries administration of Mozambique (ADNAP) to prepare management plans for two Mozambican fisheries. The ecosystem approach to fisheries is now a reality and has created a platform for communication among fisheries researchers, managers and other stakeholders."

*Mrs Maria Ascensão Pinto*  
(Director of MCS, Mozambique)



ASCLIME project



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# Four decades of achievement .../continued



Country	No. of Participants	No. of person-days*
Angola	29	757
Belgium	1	22
Cabo Verde	1	22
Guinea	1	22
Guinea Bissau	1	22
Mauritania	1	22
Myanmar	14	444
Namibia	5	87
Senegal	4	88
South Africa	18	336
Sri Lanka	8	104
The Gambia	1	22
<b>Total</b>	<b>84</b>	<b>1948</b>

2013 surveys showing participants, nationality and hours spent training (average 23 days per participant)

\* Number of survey days multiplied by the number of participants

## Contributing to a common language among fisheries researchers and managers

Through collaboration with the Nansen Programme and working on the research vessel, many scientists and managers have developed a common understanding of fisheries research and management issues and are able to communicate at a regional (and often global) level.

## Enhancing fisheries knowledge base

The unique survey database built on fishery resources in developing coastal states has remained the most comprehensive to date. Importantly, the data is owned by the respective countries, with the IMR functioning as repository and FAO providing guidance on its use. In some of the countries the baseline studies and data assembled over 30 years ago continue to be a core reference source for current management decisions.

## Establishing functioning networks of scientists leading to effective regional cooperation in marine research

A key feature of the Programme is working at regional and sub-regional levels. This has enabled scientists and managers of countries sharing the same resources to sit and plan together. Many examples exist. In Angola, Namibia and South Africa, the work of the *Dr Fridtjof Nansen* catalysed a previously unthinkable scientific collaboration between the countries and now the region is seen as an innovative example for both research and management collaboration.

Another dimension of the collaboration is North-South where Norwegian scientists and technicians have worked side-by-side with their African, Asian and Latin American counterparts. Technical reports and scientific papers have been co-authored through this collaboration. Also enhanced is South-South collaboration among the scientists and managers of developing nations. A short time spent on the vessel creates networks and friendships that last for many years.

## Assisting Large Marine Ecosystem and other regional fisheries programmes

In the 4<sup>th</sup> phase of the Programme, surveys were carried out in partnership with Large Marine Ecosystem (LME) projects in Africa. The surveys contributed data and information for the preparation of transboundary diagnostic analyses reports and implementation of strategic action programmes. The Programme worked with the Agulhas and Somali Currents, the Benguela Current, the Canary Current and the Guinea Current LME projects, as well as the South West Indian Ocean Fisheries project and the West Africa Regional Fisheries project. There were also working partnerships with the EU-funded SMARTFISH project, the Swedish-funded NEPAD-FAO Fish Programme and the NEPAD Planning and Coordinating Agency's International Partnership for African Fisheries Governance and Trade programme funded by Britain.

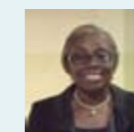
## Supporting Regional Fishery Bodies in Africa to implement an ecosystem approach to fisheries and assess fisheries resources

The Programme has worked closely with Regional Fisheries Bodies in Africa and has provided data, training, technical and financial support for their scientific working groups.



"Participation in international conferences organized and sponsored by the EAF-Nansen Project gave me the opportunity to exchange ideas with scientists from other parts of the world."

*Dr Parcy Obatola*  
(Researcher, Nigeria)



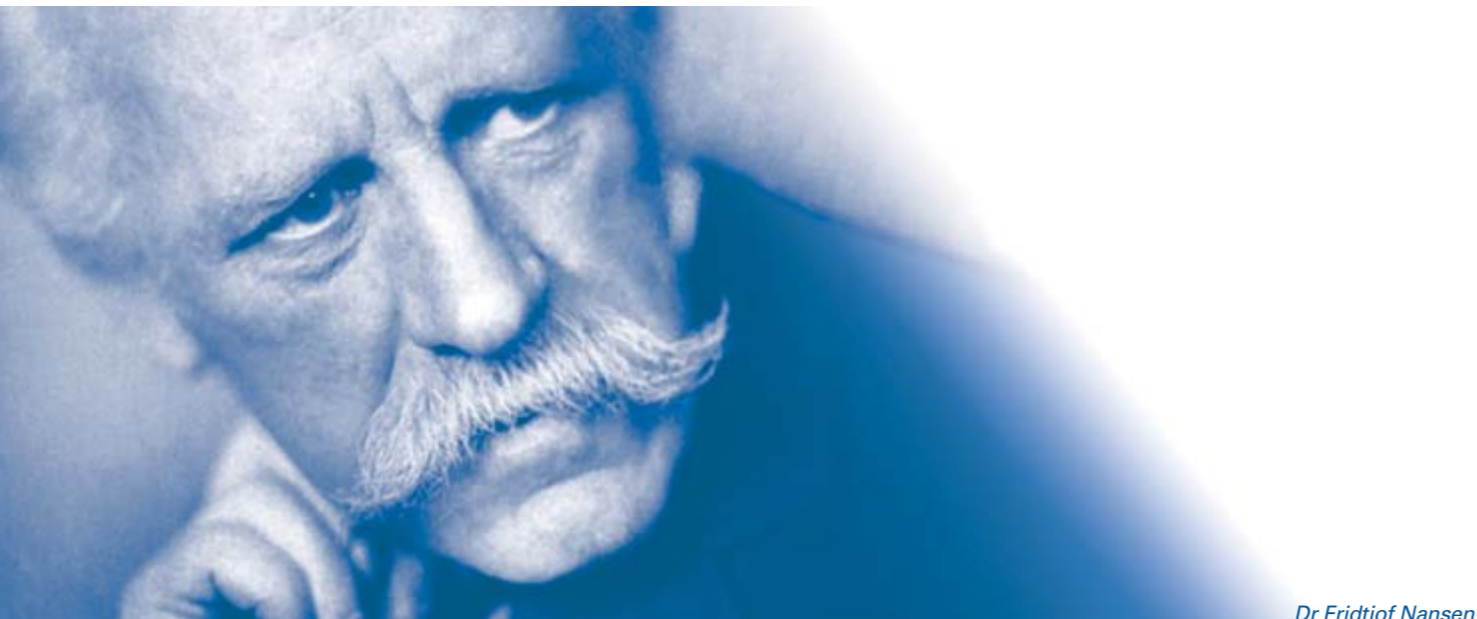
"The findings of the research vessel were the starting point for collaboration between Cameroon, Gabon and Nigeria in developing exploitation of their common shrimp resources for sustainability and profitability."

Nigeria is already pursuing the certification of shrimp including freshwater species and is working with the Project to source more funding to further develop monitoring, control and surveillance of the marine environment."

*Mrs Foluke O. Areola*  
(Federal Director of Fisheries, Nigeria)



# The man behind the research vessel



Dr Fridtjof Nansen

The Programme's research vessel was named after Fridtjof Nansen (1861–1930), a Norwegian marine scientist, explorer, philanthropist and politician. Fridtjof Nansen made major pioneering discoveries in the development of marine research, particularly in physical oceanography. He invented the "Nansen reversing bottle", an instrument to collect water samples and measure water temperature at various water depths. He played a key role in the establishment of the International Council for the Exploration of the Sea (ICES).

Fridtjof Nansen is known worldwide as one of the pioneers of brain research – from his studies of the nervous system of the hagfish.

In 1922, Fridtjof Nansen was awarded the Nobel Peace Prize for his humanitarian efforts in the wake of the First World War. Through Nansen's initiative, an international agreement was signed in Geneva in 1922 introducing the identification card known as the "Nansen passport", an internationally recognized refugee travel document issued by the League of Nations to stateless refugees. In 1931 the Nansen International Office for Refugees was established in Geneva.

## R/V Dr Fridtjof Nansen (1974–1993)

The first vessel was commissioned in October 1974. In January 1975, it started survey work in the Arabian Sea and adjacent Gulfs. It also worked in all areas covered in the first two phases of the Programme.

## R/V Dr Fridtjof Nansen (1993–present)

After nearly 19 years of service the first R/V Dr Fridtjof Nansen was replaced and in four decades the two Nansen vessels have sailed the equivalent of 60 times around the globe.

## R/V Dr Fridtjof Nansen (from 2016)

In 2012, the Norwegian parliament decided to build a new vessel for the EAF-Nansen Project. The construction contract was signed on Friday 21st March, 2014. The new vessel will be custom built in a Spanish shipyard and will be ready for surveys by September 2016.

The next generation Dr Fridtjof Nansen will have several new features including a dynamic positioning system that will enable it to work safely around sensitive infrastructure like oil rigs and a workboat that will allow complementary work in shallow waters. It will house a 30-seat auditorium for workshops and seminars on board.

The vessel will also be equipped with various sensors to monitor sea life and seawater properties. It will have the latest sonar equipment to map fish distributions, as well as a remotely operated underwater vehicle that can take vivid pictures of life on the bottom. A lookout compartment in the main mast will be used for observing and counting seabirds and marine mammals (e.g. whales).



Signing of the contract by the Director of IMR, Mr Tore Nepstad (left) and the CEO of Astilleros Gondan Shipyard, Mr Alvero Platero (right)



R/V Dr Fridtjof Nansen (1974–1993)

Built	1974
Length (m)	47.5
Beam (m)	10.3
Draught (m)	4.3
Tonnage (GRT)	495
Main engine (HP)	1 600
Accommodation	18 cabins (28 berths)
No. of laboratories	3
Auditorium	No
Work boat	No
Dynamic positioning	No



R/V Dr Fridtjof Nansen (1993–present)

Built	1993
Length (m)	56.8
Beam (m)	12.5
Draught (m)	6.9
Tonnage (GRT)	1 444
Main engine (HP)	2 700
Accommodation	23 cabins (28 berths)
No. of laboratories	3
Auditorium	No
Work boat	No
Dynamic positioning	No



R/V Dr Fridtjof Nansen (from 2016)

Built	2016
Length (m)	70.1
Beam (m)	18
Draught (m)	6.4
Tonnage (GRT)	3 900
Main engine (HP)	6 000
Accommodation	32 cabins (45 berths)
No. of laboratories	7
Auditorium	Yes
Work boat	Yes
Dynamic positioning	Yes

# Looking into the future – the new phase of the Programme



The new Programme will build upon the foundations created by previous and present work on fisheries research and management, but also expanding them as the influence of external drivers on aquatic ecosystems such as pollution and climate change increase.

The vision for the new Programme is to “Partner with developing countries, other international organizations and programmes to advance knowledge on impacts of multiple stressors on marine ecosystems, fisheries and biodiversity in tropical/subtropical regions, and to support the countries to be better prepared to address these through improved management and adequate policies”.

The FAO Committee on Fisheries has made mitigation of the effects of climate change a priority – and that necessitates having proper data. Improved and broader knowledge of the likely impacts of climate change on the marine environment is crucial to enable coastal countries to plan a way to both reduce their vulnerability and increase the resilience of communities and ecosystems.

The new Programme will be anchored on four pillars:

**1. Science** – to provide focus and guidance on the research activities conducted at sea by the research vessel, as well as on land. This component has three research objectives:

- Strengthen the knowledge base for sustainable management of fisheries;
- Consider the additional impact of climate change on ecosystem structure and productivity; and
- Address the impacts of pollution on fishery resources.

**2. Policy and management** – to ensure that the Programme will continue to support developing countries improve their fisheries management, in line with the ecosystem approach to fisheries.

**3. Training** – to further enhance the human and institutional capacity of cooperating countries to make full use of the knowledge produced by the Programme (and other sources), integrating them into best management practices.

**4. Communication and resource mobilisation** – to advise on a range of issues, from communication strategies, partnership development, stakeholder participation, gender equity and public awareness. This component will also explore opportunities for sustainable financing of the surveys in close cooperation with Norad and the Norwegian Ministry of Foreign Affairs.

The new Programme will continue to promote EAF management. A key challenge is to build better bridges between science and management. The Programme will also provide a reliable platform for international agencies to gather and process data on the oceans and play a key role in providing knowledge necessary to understand the effect of pollution and climate-related changes on marine resources. It will also provide the opportunity for developing countries to learn from Norway’s long experience in assessing and managing the interactions between oil and fisheries sectors to their benefit.

**The goals of the new phase** are to:

- Strengthen the knowledge base for the sustainable management of fisheries resources;
- Consider the additional impacts of climate change on ecosystem structure and productivity;
- Address the impacts of pollution, including from offshore oil and gas mining activities;
- Facilitate improved management of fisheries in developing countries;
- Recognize the contribution of women and achieve a 50:50 gender ratio in the Programme activities and benefits;
- Further strengthen fisheries administrations for EAF implementation and monitoring;
- Ensure effective communication on project outcomes; and
- Seek coordination and cooperation with related programmes and organizations.



*"In 1979/80 the R/V Dr Fridtjof Nansen carried out surveys in the waters of Burma (now Myanmar). The Department of Fisheries still makes reference to the data and information from those surveys to manage the fisheries. A new Nansen survey at the end of 2013 is the only one in these waters in recent years and brought a rare chance for Myanmar to update information on its fishery resources."*

*Mr Mya Than Tun*

*(Deputy Director, Department of Fisheries (Myanmar))*

