

# THE NANSEN PROGRAMME



**NORAD**

DIREKTORATET FOR  
UTVIKLINGSHJELP

NORWEGIAN AGENCY FOR  
DEVELOPMENT COOPERATION

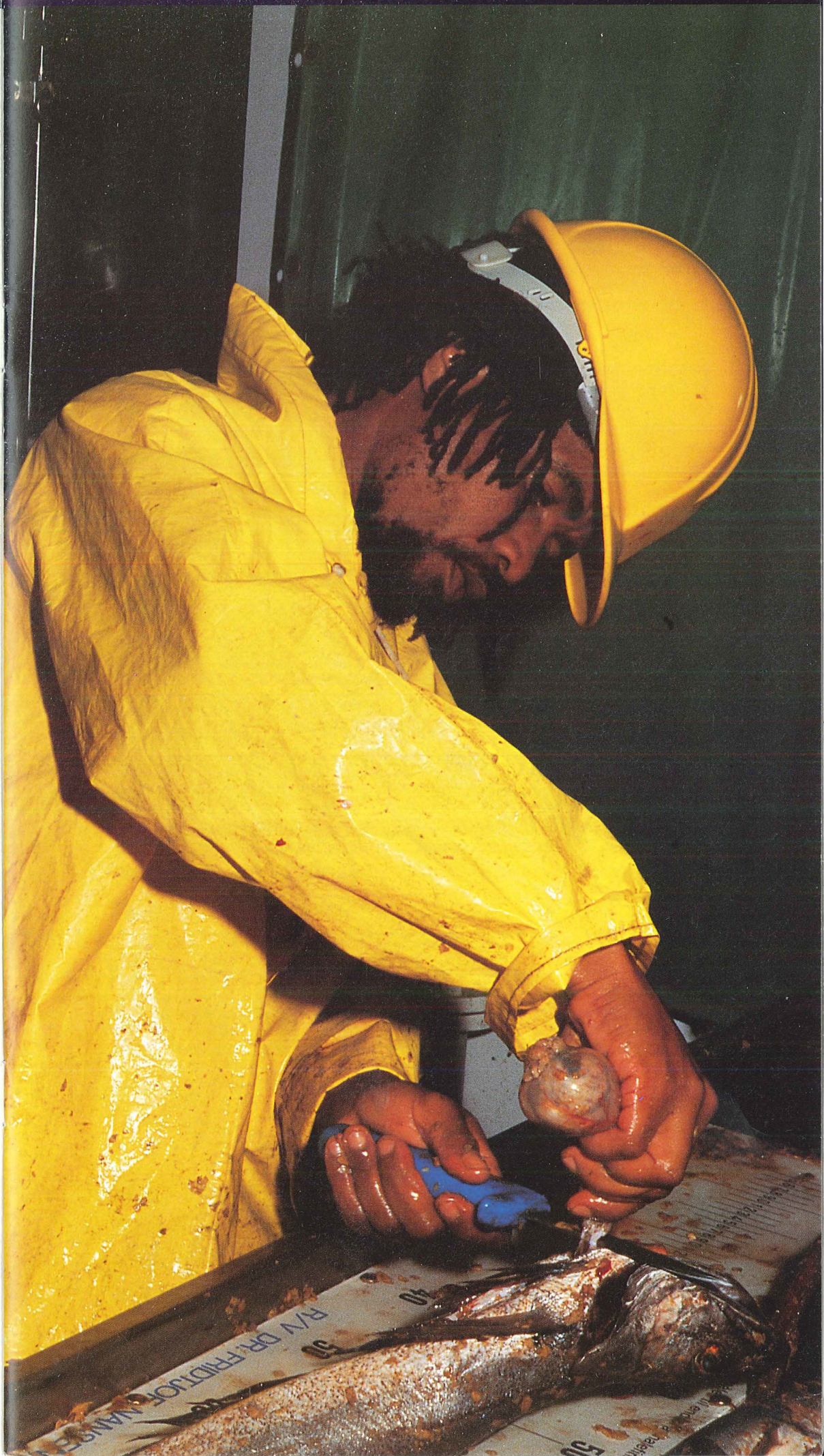
**T**he Nansen Programme supports developing countries in fisheries research and management in order to promote a sustainable utilization of the marine living resources and an improved protection of the marine environment.

The Programme's objectives reflect recommendations of the United Nations Conference on Environment and Development (UNCED) and the spirit of international cooperation contained in the United Nations Convention on the Law of the Sea (UNCLOS).

The Programme carries out field work through surveys with the research vessel 'Dr. Fridtjof Nansen' and produces basic information on resource abundance and distribution to satisfy immediate management needs.

The long-term objective of the Programme is self-sufficiency in research and management in partner countries, through the development and strengthening of their institutions.

The Programme is financed by the Norwegian Agency for Development Cooperation (NORAD), and the Institute of Marine Research (IMR) acts as executing agency in cooperation with the partner institutions. Experts in fisheries and environmental research are mainly provided by the Institute while expertise in fisheries management is drawn from the Directorate of Fisheries. Professionals from other national and international institutions are also contracted when required.



# Trends



in world  
fisheries

The expansion in the global fishing fleet and the introduction of more efficient harvesting technologies in the 1950s and 1960s resulted in a rapid increase in the marine world catches, from about 20 million tons in the beginning of the 1950s, to over 60 million tons in the 1970s.

The last 'Review of the State of World Marine Fishery Resources' (FAO, 1994) shows how the overall rate of increase in the annual yield has dropped, from 6% for the period 1950 to 1970, to about 2% in 1971 to 1990, indicating that we are probably approaching the natural limits of production from wild stocks.

In this situation, appropriate management strategies are needed to maximize yields and protect the resources from overexploitation, for present and future generations.

Currently, most management systems have failed to contain the increase in fishing effort, and major commercial fish stocks are overexploited with yields considerably below their natural potential.

The situation is particularly critical in developing countries, where fisheries research and management systems are mostly too weak to cope with increasing pressure on fisheries resources by local and foreign investors.

Here, there is an urgent need both to satisfy immediate management requirements and to contribute to the strengthening of national capabilities in fisheries research and management. This is the scope of the Nansen Programme.

# History

The 'Dr. Fridtjof Nansen' Programme was conceived jointly by Norway, FAO (Food and Agriculture Organization of the United Nations) and UNDP (United Nations Development Programme) in the early 1970s. The objective was to assist developing fishing nations in coping with the urgent need for resources information, characteristic of the 1960s and 1970s.

With the extension of coastal state jurisdiction this need was enhanced, especially because of the high expectations of the resource wealth to be found in the countries' EEZs (Exclusive Economic Zones).

The technology required to obtain the information on fishery resources was both expensive and too advanced to be handled by developing countries themselves. The research vessel 'Dr. Fridtjof Nansen', equipped with the most advanced technology at that time and fully staffed, was thus put at the disposal of developing fishing nations.

Over the period 1975-1993 the vessel was deployed in some 50 assignments to cover the coastal waters of 49 countries in the Indian and Atlantic Oceans and in the Eastern Central Pacific. The vessel was operated by the Institute of Marine Research (IMR), Bergen, Norway.

As general knowledge on the availability and distribution of major marine resources was achieved, the project scope experienced a shift in emphasis, resulting in more detailed and comprehensive investigations in selected areas.

Presently, in line with the development of the fishing activities in the last decades, a reorientation appears necessary to contribute not only to resource evaluation, but also to the development of proper management capabilities.

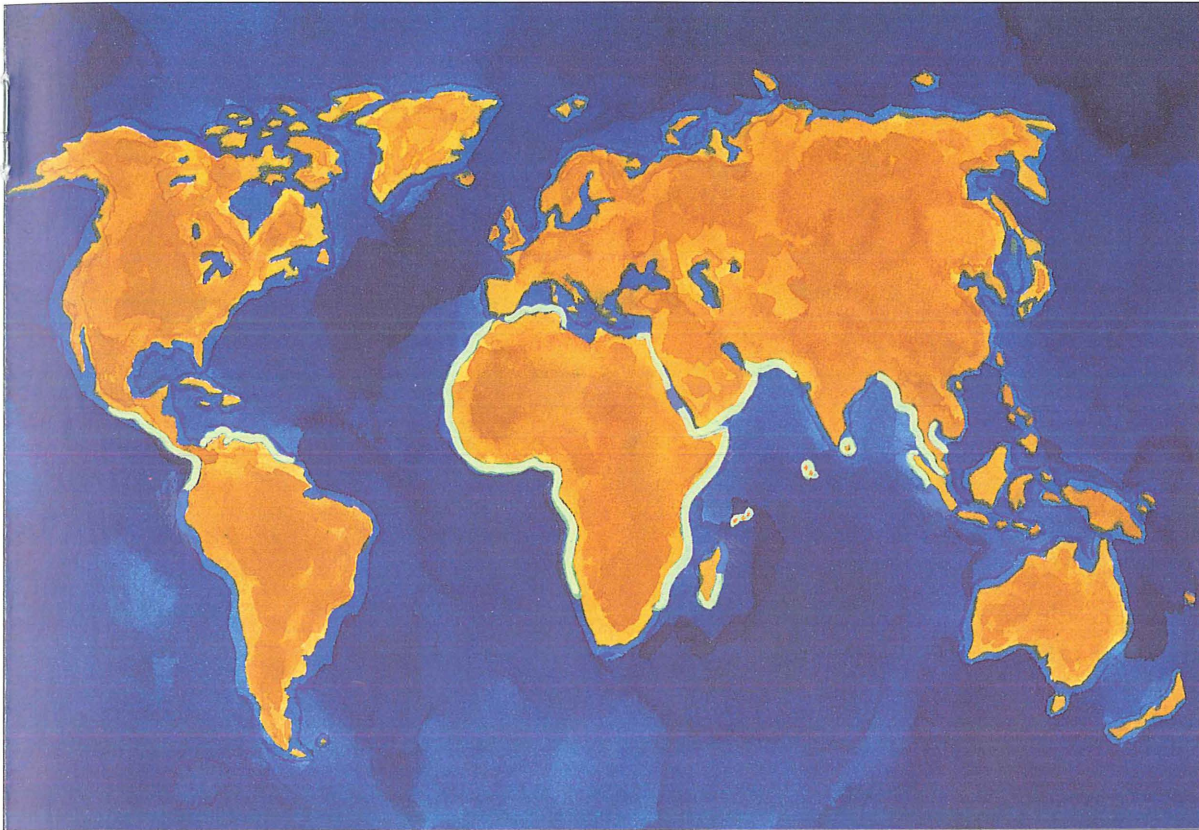
In 1991 NORAD, in consultations with FAO and UNDP, proposed a new phase of the programme which would entail:

- **building a new research vessel**
- **more emphasis on institutional support and management aspects**
- **inclusion of environmental issues of relevance to fisheries**
- **concentration of effort in fewer countries**

The new programme was approved by the Norwegian Government in 1992. The new vessel, which inherited the name of the old "Dr. Fridtjof Nansen", was commissioned in October 1993 and started operation in January 1994. The scope of the new programme, called the "Nansen Programme" covers 15 years, with a total estimated budget including building costs of the vessel of NOK 550 mill.(USD 75 mill.).

In 1994 an agreement was signed by NORAD, FAO and UNDP to cooperate in strategic planning and provide support for various operational aspects of the Programme. The vessel carries the UN flag in addition to the Norwegian flag.

## Survey assignments "DR. FRIDTJOF NANSEN" 1975 to 1994



| Period            | Assignment                  | Period            | Assignment                              |
|-------------------|-----------------------------|-------------------|---|
| Feb 1975-Nov 1976 | NW Arabian Sea              | May-Jun 1983      | Kenya, Tanzania, Mozambique, Madagascar |
| Jan-Jun 1977      | Pakistan                    | Aug-Sep 1983      | Maldives, Pakistan, Iran                |
| Aug 1977-Jun 1978 | Mozambique                  | Jan-Mar 1984      | Pakistan, S. Yemen, Somalia, Ethiopia   |
| Jul 1978          | Seychelles                  | Apr-Jun 1984      | Oman, Iran, Pakistan                    |
| Aug-Sep 1978      | Sri Lanka                   | Aug-Sep 1984      | S. Yemen, Somalia, Oman                 |
| Apr-Jun 1979      | Sri Lanka                   | Mar-Dec 1985      | Congo, Gabon                            |
| Jul-Aug 1979      | Gulf of Oman, Gulf of Aden  | Jan 1985-Jun 1986 | Angola                                  |
| Sep-Nov 1979      | Myanmar                     | Aug-Dec 1986      | West Africa                             |
| Nov-Dec 1979      | Bangladesh                  | Feb-Dec 1987      | Central America                         |
| Jan-Feb 1980      | Sri Lanka                   | Jan-Dec 1988      | Northern Coast of South America         |
| Mar-Apr 1980      | Myanmar                     | Jan-Jun 1989      | Angola                                  |
| May 1980          | Bangladesh                  | Aug-Oct 1989      | Morocco, Ivory Coast, Ghana             |
| Jun-Aug 1980      | Malaysia/Thailand/Indonesia | Nov-Dec 1989      | Angola                                  |
| Sep-Nov 1980      | Mozambique                  | Jan 1990-Jun 1993 | Namibia                                 |
| Dec 1980          | Kenya                       | Apr-Dec 1990      | Mozambique                              |
| Jan-Feb 1981      | Gulf of Oman, Gulf of Aden  | May 1991-Sep 1992 | Angola                                  |
| Mar-Apr 1981      | Egypt/Tunisia/Algeria       | Jan 1994-         | Namibia, Angola, Congo, Gabon           |
| Apr 1981-Apr 1982 | West Africa                 |                   |   |
| Jun 1982          | Tanzania                    |                   |   |
| Aug 1982          | Kenya                       |                   |   |
| Sep-Oct 1982      | Mozambique                  |                   |   |
| Nov-Dec 1982      | Tanzania                    |                   |   |
| Feb-Mar 1983      | Gulf of Oman, Pakistan      |                   |   |

# The Nansen Programme

The Programme has two main objectives; one is of immediate and one is of long-term character.

The immediate objective is to provide management institutions in partner countries with scientific knowledge of the state of the resources and the environment as a basis for their rational and sustainable exploitation.

The long-term objective is to transfer knowledge and skills that enable the scientific and management institutions to become self-sufficient.

This will be achieved through:

- **Fisheries and environmental research, based on the surveys with the research vessel**
- **Providing high-level expertise and advice in strategic planning aimed at strengthening research and management institutions**
- **On-the-job training on board the vessel and ashore at research institutions**
- **Organised training of national staff through courses, working groups and seminars at home and abroad**
- **Support to individual professional training**
- **Technical assistance**

The time frame of the vessel's presence in a country/region and of the activities aimed at institution building may vary and will largely depend on the development needs in the countries concerned.

The Programme will primarily be implemented in the main NORAD partner countries.





# The Vessel

The new "Dr. Fridtjof Nansen" is a vessel designed for fisheries and oceanographic research worldwide. The equipment includes the latest advances in fisheries acoustic instrumentation, gear for bottom trawling and pelagic trawling, plankton samplers and probes and samplers for analysis of hydrographic conditions. She was built in 1993 at Flekkefjord Slipp & Maskinfabrikk A/S (Norway).

## Main Specifications:

|                               |   |
|-------------------------------|---|
| Length:                       | 56.75 m   |
| Breadth:                      | 12.50 m   |
| Gross tonnage:                | 1450 tonnes   |
| Fuel oil:                     | 300 m <sup>3</sup>  |
| Fresh water:                  | 130 m <sup>3</sup>  |
| Fresh water prod.:            | 10 m <sup>3</sup> /day  |
| Speed:                        | 13 knots normal steaming, 10-11 knots acoustic surveying                          |
| Max days at sea:              | 40 (fuel consump. 6-7 m <sup>3</sup> /day)  |
| Main engine:                  | 2 stroke Wärtsilä Wickman   |
| Power:                        | 2700 HP   |
| Propeller:                    | 3.8m diam., 125 RPM   |
| Electric power:               | Shaft generator (1000 kW), 2 auxiliary engines(2x320kW),<br>1 emergency generator |
| Trawl winches:                | 40 tonnes   |
| Winch capacity:               | 2500m , 28mm (max bottom depth abt. 1200 m)                                       |
| Autotrawl:                    | SCANTRAWL   |
| Net drums:                    | 3   |
| Sliding keel with transducers | 6x3.5m  |
| Cold store fish samples:      | 40m <sup>3</sup>  |
| Communications:               | MW, SW, VHF, Inmarsat (telephone, telefax,<br>datamodem and telex)                |
| Accommodation:                |   |
| Crew:                         | 13 single cabins  |
| Scientists:                   | 7 single cabins + 3 four-person cabins  |

## Scientific instrumentation:

|                        |   |
|------------------------|---|
| Echo sounders:         | 3 SIMRAD EK500 (18, 38 and 120 kHz)   |
| Post processing:       | 2 Bergen Echo Integrator (BEI)  |
| Sonar :                | SIMRAD SA950, multibeam   |
| CTD:                   | Seabird with rosette sampler  |
| ADCP:                  | RDI   |
| Current meters:        | Aanderaa  |
| Fluorometer:           | Turner  |
| Meteorology:           | Aanderaa, (automatic logging)   |
| Trawl gear monitoring: | SCANMAR   |
| Computers :            | 9 PCs(486) in network, 3 UNIX workstations<br>(2 SPARC10, 1 HP) in network. |

## Laboratories:

Fish wet lab (12m<sup>2</sup>), Biological lab (11m<sup>2</sup>), environmental lab (33m<sup>2</sup>), hydrographic lab (20m<sup>2</sup>). Sorting and measurement of samples are usually done on deck.



## Area of Operation

For the period 1994-1996 the operational area is scheduled to be mainly off southwestern Africa with major survey activities in Namibia and Angola.

The succeeding operational area will be selected well in advance by NORAD in consultation with FAO and the UNDP.

## Leasing

Presently the vessel has surplus capacity in sea time and may be available for leasing in periods from one to three months at a time, including steaming time to and from location.

This also applies for countries other than NORAD's partner countries, and possible transfer costs should be accounted for by the charterer.

Scientific personell onboard will be chosen according to need. For further information on terms please contact NORAD.

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