# Norwegian development cooperation for sustainable fisheries and aquaculture

For more than 60 years, Norwegian fisheries development cooperation has contributed to development within the sector in a number of countries, including Namibia, Vietnam and Thailand. Norway's strong traditions in shipping and fishing made it natural that the very first Norwegian development project, established in 1952, was related to fisheries. The goal was to stimulate the development of the fisheries and associated community in the Indian state of Kerala. History has shown that this was achieved.

BY ASMUND BIORDAL

## THE CENTRE FOR DEVELOPMENT COOPERATION IN FISHERIES — A HUB

Since the Kerala–project that was finished in 1972, the Institute of Marine Research (IMR) has been engaged in fisheries cooperation with countries in the developing world. Mostly on traditional fisheries, but in recent years also within aquaculture and oil-fish-environment relations. The cooperation has changed over time as the Norwegian fisheries management has shifted focus, from innovations and increased efficiency towards management for sustainable and environmentally friendly harvesting. The Nansen Program and the research vessel "Dr. Fridtjof Nansen" have been the core elements since the start in 1975.

The Centre for Development Cooperation in Fisheries (CDCF) at the IMR acts as a hub for the Norwegian Agency for Development Cooperation (Norad) and the Norwegian Ministry of Foreign Affairs (MFA), the cooperating countries and Norwegian governmental institutions within the seafood sector (IMR, The Directorate of Fisheries, The National Institute of Nutrition and Seafood Research, The Norwegian Food Safety Authority and The Veterinary Institute). CDCF now coordinates 15 bilateral projects in Asia, Africa and Latin America.

#### **CLOSE COLLABORATION WITH THE UNITED NATIONS**

The environmental- and resource surveys carried out with "Dr. Fridtjof Nansen" I and II has been core activities in the Nansen program. Since the beginning in 1975, surveys have been conducted in the waters of more than 60 countries, mainly off the coast of Africa, but also in Asia and Latin-America. The main task is collection of marine data and mapping of fish stocks as basis for sustainable fisheries management. Another crucial component of the program is training of local researchers, both on board the vessel and through competence building in local research institutions.

The Nansen program is financed by Norad /MFA and the program is carried out in close collaboration with FAO, the United Nations (UN) Food and Agricultural Organization. FAO is responsible for the implementation of the program and agreements with cooperating countries, while IMR is responsible for the scientific results as well as operating the vessel and training local scientists. Since 2007, the Nansen program has turned towards Ecosystem management, and is now titled "The Ecosystem Approach to Fisheries/Nansen Project".

"Dr. Fridtjof Nansen" is staffed with Norwegian crew, and usually one research technician and a cruise leader from IMR, while the rest of the research staff is recruited from the cooperating countries.

#### THE RESULTS FROM THE NANSEN PROGRAM

In 2011, the Nansen program was labeled an "FAO success story". The program has been a success and created long lasting value:

- Vast amounts of data have been collected in areas that otherwise are lacking this kind of data; and many cooperating countries have no other marine data than the ones collected by "Dr. Fritdjof Nansen". These data are not only valuable for each country, but also regionally and globally.
- While some of the countries have had sporadic or single cruises, countries like Angola, Namibia and South Africa have received continuous cruises and follow-ups that have made available data time series. The NansClim project, studying climate changes in the marine ecosystem off the south-west African coast (Benguela region), has benefited largely from these time-series.
- The program has contributed to competence building and the strengthening of institutions within marine surveys, analyses and assessments, including more than 100 Master's and PhD-degrees.







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- that are fundamental for joint management of common stocks and ecosystems
- The Nansen program and its services have always been carried out completely without any exchange of fish quotas or other benefits to Norway from the cooperating countries.

#### NAMIBIA - A SUCCESS STORY

Sustainable fisheries management cannot rest on data and knowledge alone. Laws and regulations, sufficient control of the fisheries activities and sanctions when violations occur all needs to be in place. The fisheries management cooperation between Norway and Namibia, initiated shortly after Namibia gained independence in 1990, serves as a good example that focusing on the whole management chain can yield results. In addition to research (including cruises with "Dr. Fridtjof Nansen"), the program comprised education, development of fishery laws and regulations, fishery control and the support to establish and operate coast guard services. When the program ended after 15 years, the Namibian government was fully capable of handling all necessary tasks within marine research and management. A good indicator of the difference made by the program is that Namibia now ranks amongst the top ten countries worldwide when it comes to sustainable fisheries management.

#### THAILAND - DEVELOPMENT OF SUSTAINABLE AQUACULTURE

A complete marine cage culture pilot system for cobia and sea bass, from the production of brood fish and fingerlings, through processing and sale of grown fish, is set up in Thailand. This approach aims to transfer theoretical knowledge about sustainable aquaculture to practical know-how. Good understanding of management principles in a number of areas has been created, hereunder location of farms, breeding systems, feeding, fish health, hygiene etc. This practical/ theoretical model has proven successful.

China, Malaysia, Cuba and Mozambique are presently our cooperating countries in aquaculture projects.

#### **VIETNAM – FISHERIES AND AQUACULTURE LAWS**

Norway has a long history of fisheries cooperation with Vietnam, including donation of the research vessel "Bien Dong". In the most recent project, we assisted Vietnam in developing modern laws and regulations in fisheries and aquaculture. After the law was approved after the first phase of the project, the second phase "Bringing the law to life" tested different aspects of the laws and regulations to make the necessary adaptations to the local context.

#### THE ROAD AHEAD - FISH FOR DEVELOPMENT

The bioproduction in the oceans is as high as the one on land. However, only 2 % of the worlds food supplies come from the ocean. With a growing population in the world, it will e essential to increase the food production from the ocean - both with regard to global food security, nutrition, and poverty reduction.



Norway is a small country in the world, but a superpower when it comes to fisheries and aquaculture with leading competence within research, management and industry. Based on this, the Norwegian government released a new program in 2015; Fish for development with three main themes:

- Education and research (including the Nansen Program)
- Industrial development (including aquaculture)
- Management and legislation

A forward oriented and right initiative to use Norwegian competence to support developing countries in sustainable harvesting and production of food from oceans and freshwater-systems.

As an important part of the new program, the Nansen program will be strengthened and continued. This includes the "Dr. Fridtjof Nansen" III that will be operational in African and Asian waters from April 2017.

Science and knowledge are necessary tools for a sustainable development in fisheries and aquaculture. The strengthening on the new Nansen Program is a good start for Fish for development, however if it is going to be a success there has to be investment also in other research areas together with education, management and development of industries.

#### INSTITUTE OF MARINE RESEARCH

Nordnesgaten 50 P.O. Box 1870 Nordnes NO-5817 Bergen - Norway Tel.: +47 55 23 85 00 Fax: +47 55 23 85 31

www.imr.no

#### PUBLIC RELATIONS AND COMMUNICATION

E-mail: informasjonen@imr.no

#### CENTRE FOR DEVELOPMENT **COOPERATION IN FISHERIES** (CDCF)

Tlf.: 55 23 86 90 Faks: 55 23 85 31

#### Contact:

Biordal Åsmund Tel.: +47 906 96 701 E-mail: asmund.bjordal@imr.no

#### **KEY CRITERIA FOR SUSTAINABLE DEVELOPMENT PROJECTS:**

SECTOR WIDE APPROACH: It's important to develop the whole chain of the fisheries management sector; from research to management and control. Research and knowledge do have value in itself, but its importance is limited if it is not transferred to practical management – as it has been in Namibia. The same goes within aquaculture, where we, as in Thailand, are involved in the whole chain of management and production. **DURATION:** The projects need a time-frame that ensures the knowledge to be rooted and enables local colleagues to implement good practice concerning research and management after the projects are finalized. The time-frame needed may vary from country to country. In Namibia, where we started from scratch, it took 15 years.

PRACTICAL KNOW-HOW: Theoretical knowledge must always be the foundation, but our experience shows that combining theory with practical education yields results that are both more sustainable and that are also reached in a faster pace. "Learning by doing" thus serves as a good principle for achieving results.

LOCAL OWNERSHOP AND MOTIVATION: Development projects can only succeed if they are in line with the receiving countries own plans and priorities – and, not at least, that there is a political motivation and will to develop sustainable fisheries and aquaculture.