

Heading for the big league

Neglected for decades by war and strife, Eritrea's fisheries are now poised for a major development

With a coastline of over 1,200 km Eritrea's marine waters and continental shelf stretch over 50,000 sq km. studded with over 350 islands of which the Dahiak archipelago forms the main group. Over 1,200 km of the total coastline lie along the islands themselves. Thanks to the wide distribution of coral reefs along its continental shelf, Eritrea is a suitable habitat for fishes and other marine organisms.

The two seasons of Eritrea are defined by the seasonal pattern of the winds. During winter (November to April) wind velocities range from 16 to 65 km/hr blowing south to south-east. This prevents traditional fishing craft from venturing too far out to sea, particularly in the area close to the Bab-EI-Mendeb Straits in the south.

In summer (May to October), north-westerly winds hardly exceed 10 km/hr. Tidal ranges are narrow, around one metre, and the state of the sea depends more on atmospheric than oceanographic conditions.

There are rocky deserts, sand dunes and salt marshes along Eritrea's coastline. Extensive mangroves are found in Mersa Ibrahim and Mersa Mubarak in the north, and in Aseb Bay to the south, as well as in the central region near Massawa, in some parts of the Dankalin coast to the south as well as on several of the islands.

The main urban centres along the Eritrean coast are the port sites of Massawa in the central part (population: 30,000, down from about 80,000 before the war) and Assab (population: 60,000) in the south. Other important coastal fishing villages include Zula, Ingal, Gelaalo, Tio, Eddi, Barasole and Beilul between Massawa and

Assab, and Raheira to the south of Assab. The northern coast is all but deserted with almost no human development, mainly due to the lack of surface water.

With its widely developed continental shelf, the Eritrean Red Sea is considered to have rich potential not only for food production through fishing and other harvesting of marine organisms, but also for tourism. The Dahiak islands are particularly surrounded by significant mangrove areas, and large stretches of coral reefs and sea grass. The ecosystem in the archipelago has a relatively high level of endemism. Many marine creatures are unique to this area which is inhabited by approximately 1,000 species of fish and 220 species of coral.

In the 1950s and 1960s the Eritrean fisheries was a thriving industry, reporting annual catches of well over 25,000 tonnes. Over 80 per cent of this production consisted of pelagic species—sardines and anchovy—which were processed into fishmeal or sun-dried for export to European and Far Eastern markets.

However, with the closure of the Suez Canal in 1967 and the intensification of the armed struggle in the 1970s, production of fish dropped tremendously and fishing activities decreased until it totally collapsed during the second half of the 1970s.

Rehabilitation

With the end of the war, major efforts are currently on to rehabilitate this sector. The Eritrean marine sector is also endowed with enormous amounts of non-living resources like salt. There is also potential for oil and natural gas. Artisanal fishing is practised in various areas along the Eritrean coast, mostly around the Dahlak

A great challenge

OXFAM-Canada has long been a supporter of the Eritrean people and their struggle against Ethiopia to regain control of their country. When independence came, it seemed natural to support a fisheries community development programme by using the experience gained from previously working with fisheries in Nicaragua and in the Atlantic region of Canada.

One of the many challenges Eritrea faced in rebuilding the country was ensuring food security. Due to recurring drought, food production (from either agriculture or livestock) has grown increasingly difficult.

Since Eritrea has a 1,200 km coastline, it was quite logical to turn to the sea as a source of food and income. During the 30 years of war, there was no fishing activity. Fishing skills have, therefore, been considerably reduced and there is little infrastructure in the fishery sector. In any case, the sector was already underdeveloped.

A report of the Ministry of Marine Resources, reviewing four years of progress, states that, "Eritrea is a country where, traditionally, dependence on livestock and agricultural products has been the norm, while the evolution of the fisheries industry has been simply ignored."

Eritreans are not traditional fish-eaters and have to be encouraged to include fish in their diet. Another problem is that many villages are located around wells, five to six km from the shore. This means some villagers need to walk an hour to reach fishing sites. For all these reasons, Eritrean fisheries face a big challenge,

but also a fantastic opportunity to re-introduce artisanal fisheries. The country's fisheries also receive support from UNDP, FAO and a Dutch NGO, Urk Interchurch Foundation.

The Zula Fisheries Community Development Project, supported by OXFAM-Canada, is located in the Bay of Zula, south of the port city of Massawa. The Zula Project is a coastal community development project focusing on food security and integration of the fisheries sector into Eritrea's overall development goals.

The participation of women is a key component of the project. This is noteworthy because, traditionally, women do not participate in activities outside the home. But, as Halima Saleh, a woman leader from the village of Zula says, "The women are interested in the well-being of the coastal communities."

In November 1996, I was part of a monitoring team visiting the project to assess its implementation and discuss with partners the need for readjustment. Like others who have visited Eritrea, I was impressed by how passionate and devoted the Eritreans are about rebuilding their country and improving the well-being of their people.

The project has helped set up co-operatives in the coastal villages, and people have been introduced to methods of credit, saving and management. Members of the co-operatives are given boats and gear on credit (five fiberglass outboard motor boats belong to the project). They are supervised and receive support from extension workers of the Ministry of Marine Resources. A fish landing station has

Islands, the Dankalia coast to the south and in the area around Massawa. There are over 50 fishing villages in all, with around 1,500 full-time, registered fishermen. Around 600 of them live in the Dahiak Islands, over 520 in the coastal stretch between Massawa and Tio, and around 260 are active in the Dankalia coast south of Tio and up to the border with Djibouti.

In addition, there are several part-time fishermen, as well as women and children who fish by wading into the waters. To enhance their supporting role, the women are also being trained by the

Ministry of Marine Resources to make and repair nets. There has been a sharp decline in the population of fishermen—from a high of 23,000 in the 1950s to 7,000 in the 1960s and about 5,000 in 1970. Around Super cent of them operated on a part-time basis.

The fishers of Eritrea are actively organising themselves into co-operatives. There are 14 primary co-operative societies, comprising 417 members, in 23 fishing villages in the Dahlak Islands and along the coastline of the Massawa area. These primary co-operatives are federated into a secondary co-operative, the Semhar

been built on the shore. Women have received training in making and mending nets.

The introduction of fishing activity in the Bay of Zula is slow and the fishermen find it difficult to repay their loans. For various reasons, the economic incentive is not sufficient: low prices, insufficient markets (people in the villages still do not eat much fish or can not afford to buy fish), poor infrastructure and meager catches.

The low catches are probably due to a combination of reasons like insufficient fishing skills, dwindling fish stocks and the type of gear used. These factors call for more in-depth analysis. Idriss, a very successful fisherman from the village of Arafalle, explains his success by the fact that he fishes on a full-time basis and spend time to identify the fishing grounds. He also learned how to fish by working as a crew member on a fishing boat. His example is an encouragement for new fishers and shows them what is needed for success.

Those fishermen who wade out into the water to fish without boats on a regular basis are able to provide fish for food to the coastal villagers at a low cost. Their gear requires little investment and the volume of their daily catches do not need much for conservation and transportation. At this stage of the development of a sustenance fishery, these fishermen should be given special attention and support.

Women's involvement will be further facilitated when the fishing activity improves. Women can be involved in net-mending and fish processing. We were impressed by the training they are now receiving in fish handling and cooking. A team of nutritionists and home economics workers go to the villages regularly

to teach the women nutrition, and follow up on the introduction of fish to the diet of their families. These visits also give the women the opportunity to meet and discuss their needs, which are primary health care, water and income-generating projects.

Now that a base has been established, the project needs to emphasize ongoing training (fish harvesting, processing and marketing) and supervision for both men and women. This is being addressed by the creation of a training centre and the development of a training curriculum.

But above all, the development of the fishing activity has to be part of an overall integrated community development programme, where all the resources of the coastal area will be developed and managed in a holistic way, and where the people can be involved in community-based resource management and claim responsibility for this development.

Plans are afloat to decentralize the management of development programmes to the local administrations. This will facilitate the integration process. Only healthy and strong communities will be able to support a fisheries sector, economically and socially. In turn, a healthy fisheries sector will add to the health and strength of communities.

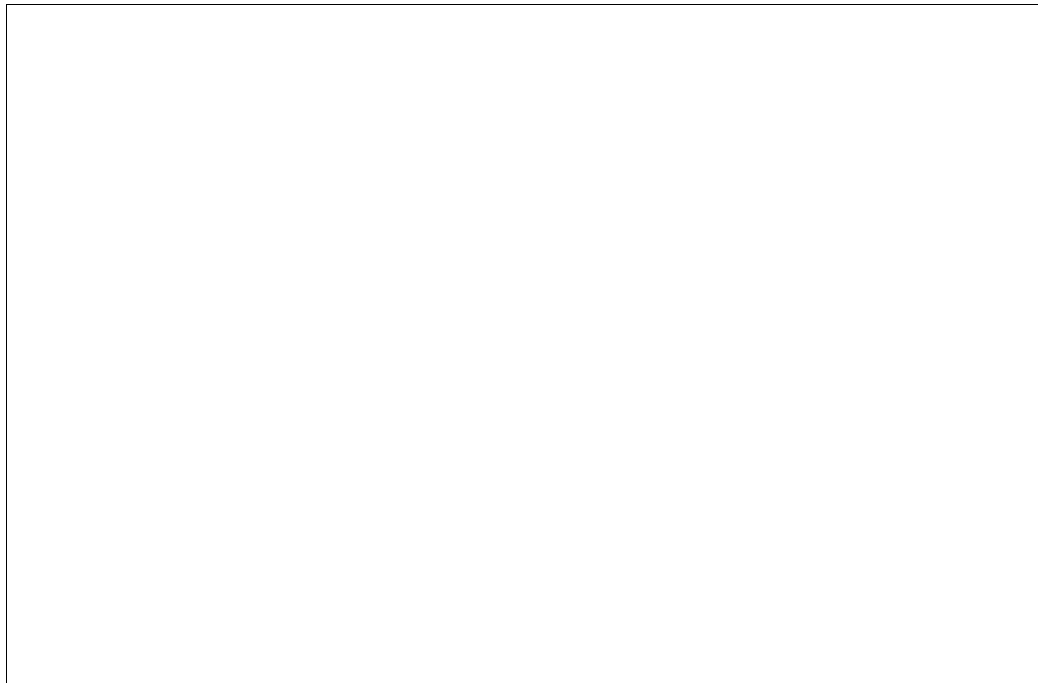
My visit to Eritrea helped me better understand how the country's artisanal fishery and coastal communities should develop and what a great challenge the task is. The Eritreans have the dedication and determination needed to succeed. No doubt they will.

—This report is by Chantal Abord-Hugon, co-ordinator, OXFAM-Canda/Project Acadie

Fishery Co-operative Society, which has been functioning since December 1993.

The artisanal fleet underwent significant changes in the 1960s, with a shift towards more motorized craft. With the introduction of fibreglass, the artisanal fishing fleet is again poised for a major shift. The Ministry of Marine Resources, as well as one private firm, are implementing pilot projects for the production of the fibreglass fishing boats. The basic fishing techniques, however, remain the same, with fishermen using hand-lines, beach seines, gill-nets and, to a lesser extent, longlines and troll-lines.

The traditional skills have not been lost and a variety of gear is used. The combination chosen depends on the season, the target species and market demand. Prime reef fishes (snappers, groups and breams) are caught using hand-lines. Gill-nets are used for shark and troll—lines are used while travelling to, and from, the fishing grounds. Beach seines are commonly used to catch anchovies and sardines. Eritrea's domestic market absorbed more than 600 tonnes of fish in 1994. With the building of new retail centres, the most important being Gejeret fish market in Asmara,



domestic consumption is expected to rise significantly.

Sales in Asmara, where three major retail centres operate, accounted for nearly 80 per cent of the domestic market during 1992-1994. The other major markets are Massawa and Assab.

Plans have now been finalised to build more retail shops and seafood restaurants in Asmara, Massawa, Chinda, Keren, Dekemhare and Mendefera.

The Ministry of Marine Resources is entrusted with the authority to oversee the development and sustainable exploitation of Eritrea's marine resources, protect and preserve the marine environment, and work towards an integrated coastal zone management.

The Ministry works towards its objectives in line with the macroeconomic policy of the Government.

This piece is based on a brochure prepared by the Ministry of Marine Resources, Eritrea