

Fisheries training

New school

A fisheries training institute for Oman is appropriate for a country that has a long history of fishing and seafaring

Thousands of applications for employment are sent annually from freshly graduating Omani youth to government and private enterprises. While some of these applicants receive positive responses, many are not so fortunate, thus adding to national unemployment levels in the Sultanate.

The Omani government exerts extensive efforts to absorb as many as possible of these graduates, but the number of job seekers keeps growing, as there are not enough opportunities for employment. In recent years, the government has passed laws to help the 'Omanization' of specific jobs. It has also extended tax incentives to the private sector to employ more Omani nationals.

To support these endeavours, the government limited the entry of foreign workers to the country and deported thousands of illegal workers. It also launched national awareness programmes by organizing seminars and media campaigns last October, in which several ministers were involved in discussing the issue of national employment. Several recommendations were adopted, which the government has promised to implement. Among them was the provision of basic levels of education to nationals, and the development of training and rehabilitation programmes to create a national cadre of professionals in various fields.

Among the sectors of the economy, fisheries stands out as one most eligible for securing employment opportunities for an important segment of the youth population. Besides oil and agriculture, fisheries and the artisanal and commercial sectors, are the most

important areas where 'Omanization' may be gainfully practised. Furthermore, the government has supported the establishment of a 'Youth Fishing Boats Project', by which the commercial fishing sector will provide enterprising and well-trained youth with inshore and offshore fishing boats on a partnership basis. The government will provide training and overall supervision of the project, while the Oman Development Bank will provide low-interest loans, with the collaboration of the commercial fisheries sector. These programmes are also intended to produce, in the longer run, technicians and technocrats who may eventually occupy top positions in productive institutions, and raise the levels of proficiency and responsibilities.

Along these lines, the Government of the Sultanate of Oman, represented by its Ministry of Agriculture and Fisheries, has requested the Fisheries Section of the Arab Academy for Science and Technology and Maritime Transport (AASTMT), a professional agency of the League of Arab States, to prepare a study for a national plan to establish a Fisheries Training Institute targeting high school graduates or equivalent, which will enable its graduates to receive internationally recognized standards of training in the various aspects of inshore and offshore fisheries. AASTMT has recently prepared the requested study.

Specialized cadre

The study deals with the establishment of a Fisheries Training Institute comprising of two branches, one for the inshore fisheries, including training on aquaculture practices, and the other for offshore, deep-sea fishing operations. The Institute aims to train and produce a specialized cadre of Omanis in the various aspects of marine fisheries and

aquaculture. The Institute should be able, when fully operational, to provide the Omani national fishing fleet, both artisanal and commercial, with the required crew.

The Oman government's request involved the establishment of the Institute and the acquisition and crewing of an appropriately equipped, multipurpose Fisheries Training Vessel. Upon completing training, the trainees should:

- have acquired professional and practical capabilities in fishing operations and practices on board small (under 24 m) fishing boats, and deep-sea vessels (over 24 m) manned by an adequate number of crew;
- be able to operate successfully within Omani coastal and deep-sea waters;
- be capable of using modern fishing devices on board the vessels; and
- ensure high quality standards for the catch.

It is initially understood that the training institute(s) and the proposed training vessel will be located in coastal towns along the Omani coastline, where the inhabitants are predominantly fishermen.

Due to the direction and strength of the monsoon, the coastal waters of Oman, which border the Gulf of Oman and the northwest Arabian Sea, are characterized as amongst the most productive waters in the world.

Oman has a geographic area of 212,457 sq km and a coastline of about 1,700 km, divided into six fishing areas, and an Exclusive Economic Zone (EEZ) of about 350,000 sq km. It covers the coastal area from the Strait of Hormuz in the north to Dhofar region in the south.

According to 1999 figures from FAO, Oman's total fish landings are estimated to be about 110,000 tonnes, valued at RO55.42 million (US\$145 million), of which 49,150 tonnes are landed by the traditional sector and 6,370 tonnes by the commercial sector. (There has been a declining trend in landings since 1995, when landings exceeded 140,000 tonnes).

These landings included 31 per cent large pelagics (tunas, king fish, jacks), 29 per cent small pelagics (sardines, small jacks, anchovies) and 31 per cent demersal fish (emperors, sea breams, groupers, ribbonfish, croakers).

Declining catches

Lobsters, abalone and cuttlefish are also caught in notable quantities, although latest figures show a decline in their landings. All catches are from marine

waters. In 1999, Oman exported about 45,630 tonnes, valued at RO35.46 million (US\$92.3 million).

Traditionally, fishing has been one of the main professions of the Omani people. A large section of the population (estimated at 2.4 million in 1999), especially those who inhabit the coastal areas, are engaged in fishing. In 1999, the number of traditional fishermen was estimated to be 27,500, using about 13,000 small (approximately 19-30 ft.) fishing boats. Most of the boats are of fibreglass, while others (*dhow*s) are made of wood and aluminum. Most are motorized. The production of the traditional fishermen is estimated to be about 80 per cent of the total catch. The traditional artisanal fleet use drift-nets, gill-nets, beach- and purse-seines, and lobster traps. The larger industrial vessels (10 longliners for tunas and 11 for trawling), owned by five commercial companies, are restricted to a quota system as well as mesh size regulations, and operate in offshore areas (10-20 miles from the coast), landing the remaining 20 per cent of the total catch.

Coastal fishing operations are possible all year round, except for lobster and abalone resources, since their fishing is restricted to two months a year. The commercial fleet has a closed season of about five months (between mid-June to mid-November).

Several resource surveys were carried out in previous years by international organizations, such as FAO, and research vessels of other countries to determine the potential of the resources in the waters that border Oman. While further confirmation on the findings is still awaited, it is clear that the annual landings from these resources can be enhanced since the preliminary figures indicate that the overall production from the Gulf of Oman and the northwest Arabian Sea can exceed 400,000 tonnes annually, mostly of small and large pelagics. The mesopelagic resources of the Gulf of Oman (estimated to be 1-2 million tonnes) is another untapped resource whose methods of exploitation and utilization are yet to be determined. However, it should be noted that, according to recent indications, a number

of stocks have reached their maximum levels of exploitation, and various management measures need to be carried out.

The training of fishermen has been a priority of the Government of Oman since the early 1970s. Several trainees in various disciplines were sent on fellowships abroad, mainly to the US and Egypt, for different durations. Other training was carried out at the Subregional Fisheries Training Centre that was established in Kuwait during the period 1975- 1984. The immediate objective of the Centre was twofold: (a) to help the member countries of the sub-region provide training on various aspects of small-scale fisheries to its citizens so that they could become skippers, mates, mechanics and fishermen; and (b) to produce extension workers to train those employed in the traditional, artisanal fisheries. It was also intended to produce graduate trainers to train others back home. However, due to a shortage of qualified candidates at the time, only three Omanis benefited from the training. It should be noted that, in addition, the Omani government established various shore facilities and extended generous subsidy schemes for fishermen.

The establishment of a fisheries training institute in Oman, under the present situation of good demand, is a national necessity that will complement the already established Marine Science and Fisheries Research Centre. The proposed institute and the training vessel will be the means to enhance a major component of the Omani economy and help diversify contributions to the overall well-being of the growing Omani population.

Deep-rooted tradition

Despite fishing being a deep-rooted tradition in Oman, fishing practices did not develop sufficiently to attract the new and better-educated youth from fishing communities, especially after the discovery of oil and the creation of new economic activities. These potential recruits to the fishing profession were better equipped than their fathers to seek employment in other sectors of the economy. But these sectors offered few opportunities and were more competitive. Therefore, they could not absorb sufficient

numbers of graduates, thus creating a high percentage of unemployed youth. (It is estimated that around 15,000 high school or equivalent graduates are produced every year, but only about 4,000 find employment.)

Considering these limitations in other sectors of the economy, the Government of Oman is keen on promoting more efficient and modern practices in the fisheries sector due to the good potential it offers for employment. Towards that end, the government has set the following objectives in its five-year plan:

- diversify sources of national income;
- promote rural development and curtail internal migration to the cities;
- open employment opportunities for graduates at various levels of education;
- improve nutrition among its citizens by providing high-quality fish and fishery products, and increase consumption levels, especially in the interior areas;
- introduce responsible management of its fisheries resources through better

education and training in fisheries research, fishing operations, fish processing, marketing and distribution; and

- promote trade in fish and fishery products from Oman to markets worldwide as a means of enhancing income to the national economy.

Various other benefits are expected to emerge from related activities, such as the establishment of a database on the country's fisheries resources and fishing activities, networking with other countries in the region, interacting with the Marine Science and Fisheries Research Centre in Muscat, Raysoot Research Laboratory in Salalah and Qaboos University, as well as other fisheries research institutions and organizations in the region.

Eventually, the Institute, when fully operational, should be able to provide Omani nationals with the necessary skills to build up a cadre of small, self-sufficient fishermen entrepreneurs who can economically stand on their own, without government subsidies.

New opportunities

It is expected that the new employment opportunities eventually created will result in indirect benefits, such as to fishermen's families. Large quantities of

inputs of different sorts are expected to be used in the fisheries, and the fish caught will be subject to various forms of processing to add value to the new products. Thus, for each fisherman at sea, five jobs are expected to be created on land, in related industries.

It will be difficult for most of the existing fishermen, who are largely illiterate and set in their ways, to adopt new fishing techniques or skills. However, a few, especially the younger ones, may be recruited for training. The proposed institute will have to target the younger, educated generation, especially those who are between 18 and 20 years of age and belong to fishing communities along the 1,700-km long coastline. These potential recruits may be graduates from high schools or vocational schools, and have basic fishing experience. The number of annual recruits will be determined in due course, based on the capacity of the facilities at the institute.

The trained graduates are expected to become certified skippers, master fishermen, navigators, mechanics who maintain outboard and inboard engines, fish handlers and quality control specialists, net makers and menders, and fish processors. The training may involve fisheries administrators, statisticians, enumerators and marketing and distribution experts. It may also involve on-the-job training, fellowships and study tours for further advanced training on electronics, boatbuilding and refrigeration at sea. There will be a need for several appropriately equipped laboratories for training in chemistry and hydrobiology. A variety of equipment will be required, among which are:

- Sea-fishing simulator, which should include an electronic nautical chart, echo sounder, net probe, navigation instruments, sonar, radar and chart table.
- Fish processing unit, consisting of tables, refrigeration unit, ice-making machine and necessary tools.
- Net making unit, with necessary tools, wires and nettings of various types.

The idea of establishing a fisheries training institute, along with the acquisition of a fisheries training vessel, in the Sultanate of Oman is wise and appropriate for a country that has a long history of fishing and seafaring, coupled with rich marine fish resources. In recent years, fisheries resources around the world have come under increasing pressures of exploitation. This situation makes it necessary for Oman to apply more responsible fishing practices that are sustainable and that may continue to provide benefits to national economic, social and nutritional objectives.

In this connection, modern training in fisheries exploitation and utilization is, therefore, highly relevant and would fit quite suitably with the developmental plans of the Government of Oman. Building an internationally recognized infrastructure facility (the first of its kind in the subregion) that would create employment opportunities, promote the advancement of an educated and professionally skilled class of young citizens, is a noble and highly regarded national activity.

Fisheries in Oman have a lot to offer its citizens and should, therefore, be exploited in a more responsible and efficient manner by well-trained Omanis. The proposed institute should be in a position to provide such training and bring long-term benefits on a continuous and sustainable basis. **3**

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