

## **NATIONAL OBJECTIVES - FISHERIES**

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### **PRESENT SITUATION**

Kenya has considerable fisheries potential which is indicated by the presence of over 10,000 km of lakes, mostly fresh water, and a coastline of 640 km. In addition to these, there are numerous fish bearing rivers, streams and several thousand fishponds. It is estimated that there is a potential to land 150,000 metric tons of fish yearly. The forecast for 1983 fish landing is about 50,000 metric tons. Clearly, fisheries potential is highly underutilized. This is significant especially when viewed together with the high rate of malnutrition due to protein deficiencies. Furthermore, Kenya is a net importer of fish and fish products in terms of volume.

Marine fisheries is the least developed. Currently it constitutes only 10% of the fish landed. There is great room for improvement here as marine fisheries represent half the country's potential.

The main constraints to fisheries development appear to be technological, financial, social and cultural. Future development should take all these into consideration. The potential which exists in fisheries calls for increased attention in government's development objectives.

### **TECHNOLOGY POLICY**

To realize the above objectives, it is necessary to introduce fishing vessels and gears capable of exploiting both shallow and deep waters. This further calls for improved infrastructure such as landing, storage and marketing facilities. The introduction of bigger and better vessels should be balanced with the need to protect the indigenous fishermen. It also calls for continuous assessment of the available fish stock, including studies of its environment in order to provide a basis for optimum level of exploitation.

A lot has been happening lately at the international level as regards the law of the sea. Some achievements have been made and Kenya should make adjustments to existing laws and practices in order to reap maximum benefits from the new agreements.

To spearhead development of commercial fishing, especially in deepfishing, there is need for creation of a body or an agency specializing in provision of financial assistance in order to stimulate investment in fishing sector. It is, however, recognised that deep sea fishing requires larger vessels and higher

trained personnel. The personnel requirement is quite crucial, more so because in the past Kenya has not invested in training fisheries personnel. Development of fisheries calls for a correction in the training strategy.

Fish farming should be promoted and commercialised. Land under fish farming should be expanded and the yield per unit of land increased. Emphasis should be on propagation of fish seed from those species with high growth rates. Extension services should be enhanced in order to provide fishermen and fish farmers with information aimed at maximizing returns from fish farming. Liason with the extension service of the ministries of Agriculture and Livestock Development should be established.

Losses due to bacteria and insect pests are high. In order to minimize these losses, mechanisms are required for synchronizing processing and handling methods with post-processing and handling methods with post-processing storage and marketing facilities required to maintain fish in good quality.

Research should play an important role in solving the problems of fisheries. Studies on the dynamics of the exploited and underexploited fish populations should be undertaken in order to assess the impact of different techniques on fish populations.

### **PROBLEMS REQUIRING ATTENTION:**

Until 1977, long-term fisheries research in the country was carried out by the East African Community. With the demise of the community, research plans have been disrupted and there is an urgent need for reorganization.

Although some short-term studies have been undertaken by a few local scientists, the major ones have usually been done by foreign scientists assigned to specific projects commissioned under technical assistance programmes funded by foreign donors. Consequently, development of local research capability has been very slow. Further, lack of scientific knowledge on available resources and their environment makes rational exploitation and management difficult.

In the past, Kenya has relied on foreigners fishing in the coastal water to supply important statistics. It is not possible to ascertain the correctness of these statistics. For proper planning and exploitation, there is need to evolve reliable data gathering procedures. Development of fisheries has further been hampered by:

1. Inadequate institutional arrangement to foster fisheries development.
2. Lack of technology such as fishing techniques and handling facilities;
3. Inadequate capital investment in fisheries which limits fishing activities to shallow waters both in lakes and at sea; and,
4. Lack of adequate infrastructure in terms of landing facilities, preservation techniques, marketing and distribution.

There is a general tendency among fishermen to exploit fisheries resources to produce maximum short-term yields without considering the conservation of stocks. As a result, some of the resources in the shallow accessible waters are in danger of being overfished within a short period.

Proper development of fisheries requires adequate supply of qualified and experienced personnel in various cadres including scientists, engineers, and extension service agents. All these are in short supply in the country. As a result output from fisheries has remained low and per capita consumption is only 3 kg per annum.

Fishermen loan schemes introduced in the past have had some serious problems. These have included management problems and failure of the fishermen to draw maximum possible benefits from the scheme. Lack of securities need to secure loans was a contributor to this failure. Cooperatives, which could be used to channel funds to fishermen, have not been very successful.

## **PROGRAMMES OF ACTION**

The recently established Kenya Marine and Fisheries Research Institute should carry out research in marine and fresh water fisheries, aquatic biology, environmental and ecological studies, and chemical and physical oceanography. More specifically the Institute should:

1. Carry out research on fish population dynamics and general water ecology, including identification of commercially important species and their distribution and stock assessment procedures;
2. Collect and disseminate scientific information on fisheries resources which will form the basis for utilization;
3. Study and develop important species for fish culture both in marine and fresh waters and their rearing procedures;
4. Establish a marine and fresh water reference collection to be used for research and training purposes;
5. Carry out studies on other marine and fresh water resources including algae and minerals;
6. Offer facilities for training of personnel;
7. Monitor pollution in fresh and marine waters; and,
8. Carry out socio-economic research on topics related to fisheries.

Amend the existing Continental Shelf Act or replace it with a new act in order to define Kenyan territorial waters and have means to control available resources.

The Fisheries Department should:

1. Institute appropriate management measures including rules, regulations and administrative principles that ensure utilization of fisheries resources on sustainable basis;
2. Pioneer the exploitation of the newly established 200 nautical miles exclusive economic zones through mechanization of fishing vessels with capacity for exploiting untapped resources, especially in deep waters;
3. Streamline fish marketing to ensure proper distribution throughout the country and, in conjunction with other agencies (e.g., The Kenya Ports Authority) improve the infrastructure by building landing jetties and facilities for fish collection, preservation, processing and transportation;

4. Establish a pilot marine fish culture to provide evaluation and viability of marine culture at the coast;
5. Stengthen the programme in fish farming by introducing high yielding species and by increasing the area under fish farming; and
6. Strengthen fisheries cooperatives and extend credit to small-scale fishermen in order to enable them to acquire modern fishing equipment and proper facilities for fish handling preservation and marketing.