

COUNTRY STATUS REPORT
ON
INDONESIA

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1. INTRODUCTION

Indonesia has just embarked into its Third Five-Year Development Plan which covers the period 1978 to 1983. As a continuation and an escalation of the Second Five-Year Development Plan, the Third Plan is based on the strategy for achieving: a) a more equitable distribution of development and its gains, leading to the welfare of the entire population; b) a sufficiently high economic growth; and c) a sound and dynamic national stability.

For the fisheries sector this strategy implies that the highest consideration should be given to the development of the small-scale fisheries. This in turn means that all development policies and programmes formulated should be directed to encouraging the growth of the small-scale fisheries, including overcoming all shortcomings and constraints faced by this sub-sector.

All this will need a long-term plan covering every aspect of livelihood of the small-scale fishermen and fishfarmers, and detailed short-term plans for direct implementation.

2. PRESENT SITUATION

Economic role of fishing industry

The role of the fishing industry in the national economy of Indonesia is still relatively small. Using 1977 figures the role of the fishing industry was around 1.8%, compared to 34.7% for the whole agricultural sector. The contribution of the fishing industry to the agricultural sector in 1977 was thus around 5.1%.

Resource availability

Indonesia is endowed with huge potentials of fishing resources, both from marine and inland waters. The maximum sustainable yield of the marine fishery resources within the limits of the archipelagic waters is estimated at 3.6 million tons, while the inland fishery resources is estimated at 1.4 million tons annually.

The inland fishery resources estimate covers both capture and aquaculture potentialities, although the aquaculture potentialities are rather flexible depending on several variables, ranging from natural factors to human and technological inputs.

Production

The total fish production reached in 1978 was 1.655 million tons, consisting of 1.225 million tons of marine species and 0.430 million tons of inland species. Compared with the resources availability the total production comprised about 33%, consisting of 34% from the marine sector and 30.7% from the inland sector.

Fish production has increased at an average annual rate of 5.3% during the Second Five-Year Development Plan (1973 - 1978). Marine fish production contributed to an average annual increase of 6.6%, while inland fish production accounted for 2.0%. Of the inland fish production, fish capture only contributed to an average increase of 0.32%, while fish culture contributed to an average of 4.83% per annum.

Among all methods of fish culture, brackishwater culture showed the highest annual production increase of 11.20%, while freshwater culture only accounted for 1.85%.

Utilization, consumption and trade

About 50% of the total fish production is processed into salted and dried fish. A small amount is canned, and most of the balance is marketed fresh, frozen or alive.

Fish consumption is still quite low, with a national consumption level averaging \pm 11.7 kgs/caput in 1978. The level varies somewhat from area to area, ranging from 5.2 kgs to 38.5 kgs/caput.

Marine fish are landed at the nearest landing places, where the fish are auctioned directly by the fishermen or through collection traders.

Fish intended for fresh fish distribution are bought by wholesalers or retailers, but fish intended for further processing are usually bought by agents of processing plants. From the wholesalers fish are sold to other wholesalers at consumer areas, or directly to retailers.

Besides for domestic consumption some of the fish produced is exported. In 1978, some 63 thousand tons of fish products were exported yielding \pm US\$193 million worth of foreign exchange. On the other hand about 27 thousand tons of fish products were imported during the same period valued at \pm US\$11 million.

Marketing, distribution and physical infrastructure

There is a geographical imbalance between the production and consumption areas in Indonesia. Refrigerated carriers for interinsular transportation are lacking, suitable collection centers, storage space and refrigerated trucks are inadequate, while a well-organized retail system is also lacking.

The situation has improved somewhat during the last 10 years, when the Government has started with the First and Second Five-Year Development Plans. Since then 134 landing places have been rehabilitated and upgraded, and 22 completely new fishing ports have been, or are being constructed.

The rehabilitation of landing places and the construction of fishing ports were intended to serve the coastal as well as offshore fishing fleet, especially that owned by the small-scale fishermen for landing and marketing their catch, and as a center for giving technical and management support and information to the fishermen.

Administration and institutional structure

The administration and the development of fisheries are handled by the Directorate General of Fisheries of the Department of Agriculture.

Based on policies of the Central Government, the Directorate General of Fisheries directs the implementation of fisheries development throughout the country, and recommends the issuance of licenses for commercial fishing operations.

In the provinces the Directorate General of Fisheries is assisted by the Provincial Fisheries Services, which although administratively are under the jurisdiction of the Provincial Government, technically they are the implementation tools of the Directorate General of Fisheries. The Provincial Fisheries Services have branch offices in the Regencies (Kabupaten) and technical staff (mostly extension workers) in lower administrative units.

Fisheries education and training are carried out by the Agency of Agricultural Education, Training and Extension, while fisheries research and development are carried out by the Agency of Agricultural Research and Development. Both Agencies are autonomous units within the Department of Agriculture and are of the same level as the Directorate General, but cover all aspects of the agricultural sector. The Agency for Agricultural Education, Training and Extension supervises agricultural (including fisheries) schools, organizes training activities and supports extension work carried out by the different Directorate Generals and the Provincial Agricultural/Fisheries Services. The Agency of Agricultural Research and Development carries out research on all aspects of the agricultural sector including fisheries through its research institutions.

The fishermen and fishfarmers are urged to organize cooperatives, although not always successful. Recently many fisheries cooperatives are integrated into village cooperatives covering every branch of the economy dominant in each village.

Fisheries cooperatives, like any other cooperative, are under the jurisdiction of the Directorate General of Cooperatives of the Department of Trade and Cooperatives. The Directorate General of Fisheries and the Fisheries Services in the regions however, assist in giving technical support to the fisheries cooperatives.

3. THE PRESENT ROLE, FUTURE SCOPE AND DEVELOPMENT PRIORITIES OF SMALL-SCALE FISHERIES

The present role of small-scale fisheries

The small-scale fisheries plays a major role in the Indonesia fisheries. Although no separate figures are available comparing the production of the small-scale fisheries with that of the industrial fisheries, rough estimates indicate that the contribution of the small-scale fisheries to the national production is around 95 to 98%. This is quite logical as the

industrial fisheries is a relatively new business in Indonesia. Furthermore, although quite productive, the industrial fisheries is more selective in its production pattern, aiming at the most lucrative species rather than the cheap bulky species.

The small-scale fisheries engages around 1.8 million fishermen and fishfarmers, excluding their families. The total fishing fleet of the marine fisheries consists of † 228,000 non-powered boats and † 22,800 powered boats. All non-powered boats and most of the powered boats belong to the small-scale fisheries.

The inland open water fisheries, which is completely small-scale in nature engages † 144,000 boats, consisting of † 143,000 non-powered boats and † 1,000 powered boats. The inland culture fisheries covers † 185,000 hectares of brackishwater ponds, † 35,000 hectares of freshwater ponds, † 47,000 hectares of rice fields, and 10 hectares of cage culture. All the culture fisheries is small-scale in nature.

Although the production pattern of the small-scale fisheries is less selective compared with that of the industrial fisheries, the small-scale fisheries contribution to the export of fisheries products is quite substantial. This is especially true for shrimp, of which the small-scale fisheries has contributed about 76% of the shrimp portion in volume.

Due to the considerable number of fishermen and fishfarmers involved in the small-scale fisheries, the importance of this sub-sector is particularly pronounced by its social character. Only if due consideration is given to the social aspects of the small-scale fisheries, ample success could be expected in any effort to develop this sub-sector.

The future scope of the small-scale fisheries

The Government is attaching high importance to the development of fisheries within the Third Five-Year Development Plan, among others in its effort to improve the supply of animal protein to the people. Fish production has been projected to increase by 5.8% annually, compared with 4% in the Second Plan. It is possible that fish production can be easily increased if modern production methods could be applied. This will however, be beyond the reach of most small-scale fishermen and fishfarmers.

The Government is determined that in the Third Five-Year Development Plan more equitable distribution of development and its results will be achieved. This policy implies that the highest consideration should be given to small-scale fisheries. And this means that the future scope of the small-scale fisheries will in no way be smaller than the present condition.

Development priorities of small-scale fisheries

In conformity with the policy to have a more equitable distribution of development and its results within the small-scale fisheries, the development priorities of the small-scale fisheries have been directed to overcoming short-

comings and constraints faced by this sub-sector, which are namely: (a) low technical and managerial know-how, (b) low bargaining position in marketing their yields, (c) low financial capabilities, and (d) increasing limitations in resources availability.

To overcome these shortcomings and constraints the Government is giving priority to the following activities:

- intensification of extension and training of fishermen and fishfarmers to step-up their technical and managerial abilities,
- improvement of the fish marketing facilities and fish marketing system to increase the bargaining position of the fishermen and fishfarmers,
- improvement of the small holder credit scheme to step-up the financial capabilities of the fishermen and fishfarmers,
- introduction and improvement of regulatory measures for better resources management in highly exploited areas, and resources development in potential areas.

Extension and training

To step-up the technical and managerial abilities of the fishermen and fishfarmers the Government conducts extension and training programmes.

For the fishermen the programme is geared to the training of better techniques of fish capture, and the training of skippers and engineers to obtain the required certificates. Mobile training units are used to cover the fishermen in their respective villages, and permanent training centers are used to train more advanced fishermen.

For fishfarmers the programme is geared to obtain more advanced techniques with respect to pond construction, proper utilization of pesticides, fertilizer, artificial feeding, water management and stock manipulation. The programme is carried out with the aid of demonstration ponds, or at permanent training centers. The Government also provides fish hatcheries in potential areas to supply better strain of fish fry at low-cost.

Improvement of fish marketing facilities and system

To increase the bargaining position of the fishermen and fishfarmers in marketing their yields, the Government supports the construction of fish marketing facilities, especially to facilitate fish auctioning at the landing places and collection centers. All new fishing ports are provided with ice plants to provide more security to the fishermen in maintaining the freshness and quality of their catch, and consequently secure higher prices.

The Government also initiates fresh fish marketing pilot projects which will enable a better price margin to the fishermen, without increasing the retail price to be paid by the consumer. The objective of this effort is to improve both the fresh fish marketing facilities and the marketing system itself.

Due to the high capital inputs needed to finance an integrated fresh fish marketing set-up, the Government has assigned all state-owned fisheries enterprises to support the implementation of the system.

Improvement of credit scheme

To cope with the problem of capital needs faced by the small-scale fisheries, the Government adopts a small holder credit scheme which aims at providing feasible financing for small-scale fish capture and fish culture operations. Through the financing of mechanized fishing vessels and improvement of fish ponds, sizeable contributions to the productivity, income and social welfare of the fishing community are expected.

The credit scheme is composed of 2 elements:

- (a) Motorization scheme for the construction of new powered fishing vessels of 5 to 7 GT.
- (b) Fish culture intensification and extensification programmes, covering brackishwater culture and freshwater culture.

Besides the ordinary small holder credit scheme which is financed by state's Banks, the Government also extends other small holder credit schemes with financial contributions from international financing agencies, e.g. the World Bank.

Resources management and development

To protect the small-scale fishermen from unfair competition by the more modernized fishermen, the Government introduces fishing belts along the coastal waters where substantial fishing occurs. These fishing belts divide the coastal waters into fishing areas parallel to the coast line. The fishing belt closest to the coast line is designated for fishermen with the most simple fishing method and gear, while the fishing belts further off the coast are designated for more modern methods and gear on a progressive order. By doing so enforcement of resources management measures can also be carried out.

To prevent overfishing of the demersal resource potentials, the Government also imposes limitations to the number of bottom trawlers allowed to fish in a certain area. As demersal fishing is a very important part of the small-scale fisheries, this regulation has a social character as well.

To develop the less exploited fishing grounds, which usually are remote from the densely populated areas, the Government constructs fishing bases to attract new investment. This is usually coupled with a transmigration programme.

The same pattern is used for the development of new brackishwater fish ponds in the remote areas, either designated for transmigrating fishfarmers or converting fishermen from over-exploited areas.

The development of the small-scale fisheries is in fact a huge undertaking of achieving a new order covering all aspects of livelihood of the small-scale fishermen and fishfarmers. This enormous task cannot be accomplished within a short period of time and should be tacked on a cross-sectoral basis, and which will probably need at least one generation to achieve a certain level of success.

4. CONCLUSIONS

- The small-scale fisheries plays a most important and extensive role in the Indonesian fisheries due to its huge contribution to the national fish production, but the more so because of the complex social problems involved.
- Individually the small-scale fisheries is very weak, with almost no ability to develop without any assistance from outside.
- Assistance is particularly needed to overcome its low technical skill and managerial know-how, low bargaining position and financial capabilities, and increasing resources limitations.
- The government is determined to assist the small-scale fisheries as an important part of its national development plan through the Five-Year Development Plans.
- The development of the small-scale fisheries is a complex task and needs a cross-sectoral approach to cope with, and ample time to come to a success.