

SUSTAINABLE MANAGEMENT AND DEVELOPMENT FISHING IN NEAR SHORE AREAS OF VIETNAM

by

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1. Fisheries Sector of Vietnam

Fisheries sector of Vietnam has been considered as a spearhead sector of national economy, in recent years it has made important contribution to national economic development:

1.1 According to 1995 statistic date, Vietnamese Fisheries Sector has reached total fisheries production of 1.3 million ton, among 2/3 is from marine resources and has an annual per capita supply of about 11 Kg of fish, which accounts for about 30% of the total animal protein intake of population.

Also according to 1995 statistic date, there are 800,000 people directly engaged in fish catching and Aquaculture operations, comprising 3% of country's labour force. At the same time there are 3.2 million people living in the fishermen's families and in other supporting areas such as fish processing, mechanical repair etc. will reach the figure of 1.8 million equaling 4.7% of country's labour force.

Beside above mentioned people, Vietnamese fisheries sector has employment opportunities no full-time for 20 million people.

During the past ten year, export volume from fishery products reached US\$ 2.9 Billion. Out of which the figure for 1995 was US\$ 620 million.

1.2 In addition to great impact of policies and mechanisms under the subsidized economy, the fisheries sector has always been influenced by climatic and weather changes. However, the fisheries sector has gained fast growth rate and managed to keep the growth rate at 6-7% per year.

Besides, the fisheries sector also is significant in regard of several socio-economic sector such as health, some industries, tourism and culture.

2. Fishery Resources of Vietnam

Vietnam is situated in the tropical monsoon, effected area rich in aquatic fauna and flora generally bioproductivity is at a high level. Particularly in red river and Mekong river estuaries which are important., if not the only bases, for the development of fisheries economy.

Vietnam's Marine fishery resources assessed as abundant in the region. The data obtained from investigations and surveys performed up now show an estimated stock of over 3 million MT with a total allowable catch (TAC) of 1.2-1.4 million MT.

2.1 Marine fish

- The species composition is plentiful and diversified. About 2,038 species have been identified, of which about 130 species are of commercial value. Demersal and subdemersal fish species take advantage (about 70.1%) compared with pelagic fish species (29.9%). The number of species having inshore ecological features (67.8%) is greater than of oceanic species.
- Life cycle of Vietnam's marine fish species is relatively short, normally 3-4 years, some species have the life cycle of 7-8 years or more. Fish species has a short life cycle of 2-3 years. The growth rate during the first years is relatively high.

Reproduction : It clearly reflect tropical feature. Spawning occurs almost all around the year. Main spawning season of many species concentrated in April-June period. Spawning ground in shallow waters along the coastline, some species can move out to the offshore areas such as ocean tuna and flying fish, mackerel etc. The juvenile fish lives near the shore and when grown-out moves to the offshore areas water.

- Number of fish schools varies by season around the year, concentrated in big schools during the monsoon period, some species can moves so far offshore such as : Ocean's Tuna, flying fish etc.

2.2 Crustacean

In Vietnam's seawaters 1,647 Crustaceans species have been identified, of which shrimps play the most important role with 70 species of 5 families. Annual shrimps catch ranges from 40-60 thousand tons, mainly from Southern Sea waters.

2.3 Molluscs

Names of about 2,500 species have been identified, many of which are of economic value such as squid (loligo), cuttlefish (sepia), scallop (chlammys), oyster (ostrea) etc. These resources are important next to shrimps resources, annual molluscs catch ranges from 40-50 thousand tons.

2.4 Seaweeds

Name of 638 species have been identified, of which Gracillaria genus is the most attractive with the popular Gasiatica species.

Besides, fisheries Vietnamese resources including some of another special species.

3. Present status of fishing activities in coastal water areas of Vietnam

The coastal areas of Vietnam (depth <30 m for the coastal are of East West of South Vietnam, Bacbo Gulf and <50 m for the central coastal area) is about 106,000 km². Equal to 11% Economic Exclusive Zone. According to the estimates that the coastal reserves of fisheries Resources is about 1.5 million tons and the total allowable catch is 0.6 million tons, but in fact over recent years, the total of exploiting fish in nearshore is reached 660-680 thousand tons. That is over the limited exploitation 10-12%. Respectively fisheries of high economic value is used as raw material for export processing, special fishery as shrimp, fish living under reef, coral, squid etc. In some areas in the state of emergency and endangered resources. The reason of the status is:

3.1 The fishing means developed rapidly in the 10 recent years at the end of 1985 there were 53,561 fishing boats (31,906 motorized boats), but at the end of 1995, according to statistic, there were 95,700, among 68,000 motorized boats (see Table 1).

A large number of motorized boats has been equipped with a small power, the units <30HP occupy over 80%, which lack of necessary equipment, and supplies. Therefore, only operating nearshore (the density of the fishing boats were concentrated in some areas over 100 units per km²).

Table 1

S.N	Items	Unit	1985	1990	1995
I	Total fisheries production	Ton	628,000	672,000	928,000
II	Fishing boats	piece	53,561	72,323	95,700
1	Motorized				
	- Total engine power	-	494,507	727,582	1,500,000
	- The average engine power	HP/piece	16.86	17.63	22.06
2	Artisan boats	piece	24,468	31,068	27,700
3	Catch productivity	T/HP	1.27	0.92	0.58
III	Fishing labour	People	220,770	253,287	420,000
	Labour productivity	T/People	2.84	2.65	2.10

Fishing in Vietnam is using about over 40 kinds of gears, belonging to 2 groups:

- Subjective group, including Trawlers and purse seining. This group of gears occupy about 29% of total fishing means of Vietnam.
- Passive group, including liftnet, handline, long line, gill net, trap and fixed gear, occupies about 71%.

All kinds of gears using in Vietnam at present bare a characteristic that the scale is small, operating mainly in the near shore along the coastline, only gillnet and longline, some unit have operation range far from the shore.

Among above mentioned kind of gears, the trawlers, other combining with light source and fixed gears (trap setters etc.) near the river mouth, near shore are impacting on the resources and Environment of the fisheries resources, catching of juvenile fish, changes the habitats of the fisheries resources (Bottom Trawlers).

- Number of fishermen in Vietnam is about 420,000 people, number of fishermen is trained through regular schools is small, the remainder has been trained within their family inherited from fathers to sons, mainly operating with their experiences without scientific knowledge often causing harms to the environment and habitat of the fisheries resources, the acting of violation of law commonly occur such as using dynamics, nets with smaller sizes than regulated ones and so on regularly taking place at sea.

3.2 The waste environment of Vietnam, though until now still considered as clearer compared with many countries in the region, but with current development of some sectors, such as: Oil exploitation, forestry (Exploitation of mangrove forest and watershed forest), Agriculture (using pesticides, treatment of environment), tourism. Oceanic transportation and especially aquaculture in brackish water, mangrove forest, using industrially processed food, medicinal drugs and chemicals used for treatment of waste water, all these factors may cause pollution to the environment of water near the coastal areas.

4. Management measures of fishing in shore areas water along coastline of Vietnam

As the practical status of the economy of the country, and of the sea fishing of Vietnam which in next few years still mainly depend on the fisheries resources of near shore water along coastline, therefore, in order to maintain the sustainable growth, at the same time to protect sustainable the resources of near shore water, Vietnam has managed and continues to manage the coastal fishing by the following measures:

4.1 Continue the coastal fishing planning:

Arrange, adjust the structure of fishing fleets, kinds of gears in near shore water along coastline such as : The fishing vessels motorized with engine <20 HP are not permitted; limit development fishing vessels motorized with engine <30 HP, especially with the facilities of trawlers, reduce and stop the operation of small fishing means operating in the waters of over 5-7 m deep and firstly decreasing the number of bottom mouths in the river mouths.

Encourage development of offshore fishing on by applying the policy mechanism like: exemption of some taxes, preferential credit for investment in development of means for catching fishes far from the coastline. The Government of Vietnam has been having programmes with large credit amounts in support of offshore fishing activities.

Import some advanced fishing techniques, exploit with careful selection fisheries with the aim at protecting sustainably coastal fisheries resources.

- Promote development of investment for a fishing in shore of which priority should be given to development of aquaculture and supporting activities in order to reduce the pressure of exploitation of marine products in the waters near the coast.
- Increase investment for construction of technical and material basis, for which there are 6 centers for fishing, fishing labours, water and oil supplying systems and so on in service of the program of offshore marine products exploitation and reducing the pressure of exploitation of coastal fisheries resources.

4.2 Strengthening the monitoring and supervision of law implementation:

- Strengthen the capacity of the organizational system for protection of fisheries resources, firstly fisheries protection forces at sea in terms of number as well as the quality of officers, facilities (fisheries checking vessels) and equipment needed for controlling and observation of law implementation.
- Strictly apply different forms of treatment against violation of the law, causing harms to the resources and living environment of fisheries, especially activities of using dynamics, toxic chemicals, electricity and fishing nets with eyes smaller than regulated ones, exploiting unmatual sea products and species endangered to extinction and so on.
- The Government of Vietnam has promulgated and will promulgate different policies and legislation of r encouraging organizations and individuals to participate actively in activities aimed at protecting sustainable fishing resources and their habitats and marine resources in particular.

4.3 Gradually increase the people's knowledge and social and cultural life for fishing community

- Increase the propagation and education of the community on law, common knowledge on aquatic resources, habitat, relationship between different coastal ecological systems and so on.
- Increase the investment for technical and material basis, creating favorable conditions for production development and social and cultural life of fishing villages, islands near the coast, labour bridge, fishing landing area, markets, schools, hospitals, transport etc.
- Continue testing and expansion of joint management models, the Government and the people together participate in management of fishing resources and living environment.

4.4 Strengthening the protection of fisheries resources and coastal water environment

- Demarcation of important fishing area, defining the restricted areas, reducing exploitation; prohibited and limiting of using some fishing gears, methods and establish the marine protected areas.
- Make use of international cooperation and development potential at home; continue the research and surveying reevaluate the coastal fisheries resources and offshore adjustment and redistribution of production forces to conform with the present situation of marine resources in each area will be made.
- Study and reproduce different varieties of sea products endangered to extinction, implementation the program of renewal of fisheries resources.
- Continue and improve the registration and issuing the permits for fisheries catching, firstly for the key areas; concentrating shrimp and fish yards and economic value.
- Apply measures to protect fisheries species endangered to extinction.

4.5 Perfectization of fisheries law system

In line with the national development, after 35 years of construction and development of fisheries sector, encouraging achievements have been made, fisheries law system has been established, gradually entering into social life, of which there existed the fisheries resources protection and development legislation, contributing and creating conditions for fisheries sector to develop and catch up with the general development of the country. Vietnam is constructing the state of jurisdiction, the law system is being perfectized. After the birth of the new constitution in 1992, many new laws have been promulgated or amended or added, from which there are many

other related laws as: land law, navigation, foreign investment law, civil law etc. With open-door policy, Vietnam has signed and will study to sign or participate in many international convention on Sea Law in 1982, international trading endangered species (CITES), Marpol Convention 1974, Convention on biodiversity conservation, Mekong Agreement. However, in order to observe the constitution of 1992 and overcome the limitation of current legal documents, Vietnam has now program of formulation of fishing law system like the project in cooperation with Norway, FAO on formulation of fisheries resources development and protection law.

4.6 Strengthening International Cooperation

As mentioned above, Vietnam in the past years, has carried out the investigation and study on fisheries resources, however, collected data from these activities are still in preliminary form, chiefly data of offshore surface fisheries resources and bottom fisheries resources with over 100 m deep, shrimp of the deep water areas of above 30 m and lacking of the thematic surveys in direct support to production and protection of resources, as well as in depth study of biology and ecology in the oceanic zones including nearshore areas.

To manage sustainable the coastal fisheries resources Vietnam has been continuing to courage with all countries inside and outside the region in investigation, surveying and assessment of the fisheries resources over the Vietnam water territories, especially the overlapping areas between Vietnam and neighbouring countries. While continuing and strengthening further the exchange of information. Staff training on the fields relating the management of oceanic environment and Resources.