

MARINE FISHERIES IN VIETNAM

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ABSTRACT

From 1991 to 2003, number of fishing boats increased from 43,940 to 83,122. The average power per boat increased from 18HP/boat to 49.3HP/boat. Fishing productivity seems to be gradually decreased from 0.89ton/HP to 0.35 ton/HP. In this period, the yield of marine fisheries has been constantly increased with an annual average of 5.73%. Last year, it reached 1.426 million tons in which 873,000 tons was from coastal fishing while the limit is about 600,000 tons. That means there was a fishing overcapacity from coastal waters.

The current situation of development and management of Vietnam marine fisheries is presented. Its disadvantages and weaknesses are clearly identified. Vietnamese government determined to improve its existing fisheries management to obtain a sustainable one. Well planned strategies to make its fisheries better are clearly stated. Important policies like Zero and preservative policies will be enforced. The government even gives up some its controls to private sectors. More detailed suggestions are presented.

Keywords: sustainable development, open asset, fishing productivity, Tonkin gulf, fishing capacity, community-based fisheries management.

THE CURRENT SITUATION OF DEVELOPMENT AND MANAGEMENT MARINE FISHERIES IN VIETNAM

The Current Situation of Marine Fisheries in Vietnam

The Yield of Marine Fisheries

From 1991 to 2003, marine fisheries continuously developed at the speed, which increased an average of 5.73% per year. In 2003, the yield of the whole country's fisheries was 2.536 million tons in which the marine fisheries got 1.426 million tons equivalent to 56% of the total fisheries yield. The offshore fisheries gained 0.553 million tons or 38.8 % and the coastal fisheries reached about 0.873 million tons or 61.2%.

Some tendencies of the development are recognized during the past years:

- + The annual increase in the marine fisheries yield is not because of the richness of fisheries resources but of the increasing number of fishing boats.
- + The mechanized level of fishing boats has been rising quickly, but the marine fisheries yield has not increased as the same ratio.
- + The reduction in the fishing productivity has reflected the retrogression of the fisheries resources and environment.

Table I: Yield and export turnover of Vietnam (1991-2003)

| Year | Yield (ton) | Marine fisheries (ton) | Aquaculture (ton) | Export turnover (USD1000) |
|---------------|-------------|------------------------|-------------------|---------------------------|
| 1991 | 1,066,330 | 730,420 | 335,910 | 252,000 |
| 1992 | 1,086,800 | 737,150 | 349,630 | 305,300 |
| 1993 | 1,166,169 | 793,324 | 372,845 | 368,604 |
| 1994 | 1,211,496 | 848,474 | 333,022 | 458,200 |
| 1995 | 1,344,140 | 928,860 | 415,280 | 550,100 |
| 1996 | 1,373,500 | 962,500 | 411,000 | 670,000 |
| 1997 | 1,570,000 | 1,078,000 | 492,000 | 776,000 |
| 1998 | 1,668,530 | 1,130,660 | 537,870 | 858,600 |
| 1999 | 1,827,310 | 1,212,800 | 614,510 | 971,120 |
| 2000 | 2,003,704 | 1,280,591 | 723,113 | 1,398,170 |
| 2001 | 2,248,700 | 1,369,600 | 879,100 | 1,760,610 |
| 2002 | 2,410,361 | 1,434,800 | 976,100 | 2,014,000 |
| 2003 | 2,536,361 | 1,426,223 | 1,110,138 | 2,216,694 |
| \bar{T} (%) | 107.48% | 105.73% | 110.47% | 119.86% |

From Annual report of Ministry of Fisheries (1991-2003)

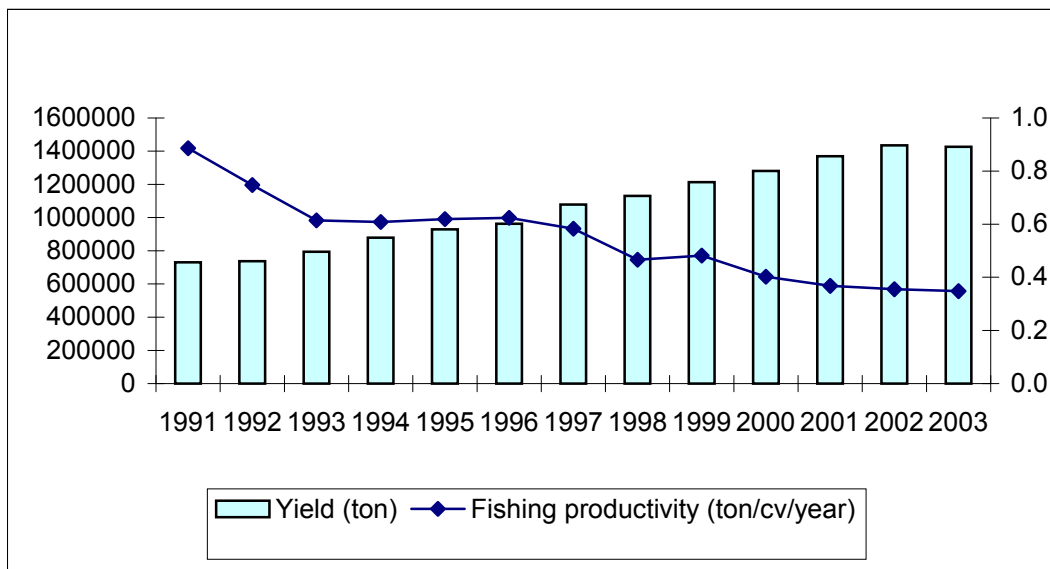


Figure 1. Relation between fishing productivity and yield

Labor Force in Marine Fisheries

Labor force in coastal regions are abundant. The number of people who make the living through fisheries was about 1.608 million (in 1999), which equaled to 2.11% of the country’s population. Now, that number is about one million. The majority of fishermen are poor (their average GDP is 160 USD per person). They work mainly by their own experience, have a low level of education and limited awareness of fishing regulations. However, they are highly aware of the community and willing to help each other.

The number of qualified captains and chief engineers is small, just about 10,000. Their knowledge and skills to use modern equipment are limited.

The above references about the labor force limit the efficiency of well equipped fishing boats. When small boats operated along the coastal areas, these limitations may be not much. However, when operating big boats with modern equipment, the lack of knowledge about advanced technology, fisheries resources, and fishing techniques will lead to the limitation of using this equipment. Thus, the economic efficiency is low.

Marine Fishing Boats

In 2003 there are 83,122 engine boats with the total power of 4,100,000 HP. It was reported that the number of boats has increased 1.89 times and 4.97 times the engine capacity compared with these in 1991. Each boat’s average power used to be 18 HP and now it mounts up to 49 HP. The total of offshore operating boats has been 6,258 so far with the total power of over 1 million HP.

In recent years, although number of big boats tends to increase, the number of small boats with under 23 HP still contributes a high percentage (about 50%). Big boats with over 300 HP get only 2% and most of them are operated in South Viet Nam.

The number of boats operating in coastal areas is 85% and offshore areas are just 15%.

Most equipment is simple, especially safe equipment. Some big boats, which are recently built and able to operate offshore, are equipped with communication and safety equipment accordingly to the regulations. Most small boats equip with no equipment that follows the regulations.

The operating range of fishing boats is relatively wide and the fishing regions are not fixed. However, some big fishing areas with a lot of fishing boats have been formed in Tonkin gulf, the Southern Central, and the South West. These areas are only 50-70 kilometers away from the shore.

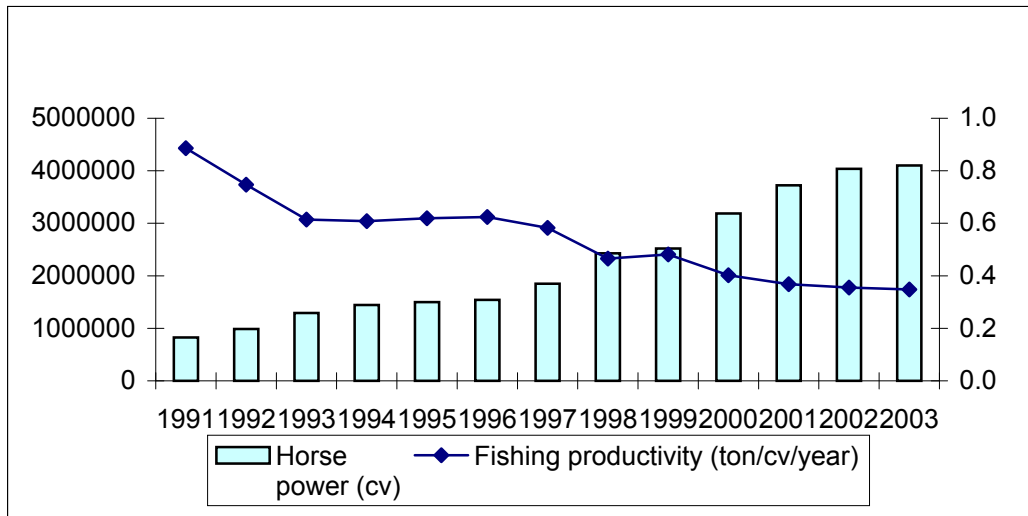


Figure 2. Relation between fishing productivity and horsepower

Table II: Number of boats and fishing productivity in Vietnam (1991-2003)

| Year | Number of boat (unit) | Total horse power (cv) | Yield (ton) | Average fishing productivity (ton/cv/year) |
|---------------|-----------------------|------------------------|-------------|--|
| 1991 | 43,940 | 824,438 | 730,420 | 0.89 |
| 1992 | 54,612 | 986,420 | 737,150 | 0.75 |
| 1993 | 61,805 | 1,291,550 | 793,324 | 0.61 |
| 1994 | 67,254 | 1,443,950 | 878,474 | 0.61 |
| 1995 | 69,000 | 1,500,000 | 928,860 | 0.62 |
| 1996 | 69,953 | 1,543,163 | 962,500 | 0.62 |
| 1997 | 71,500 | 1,850,000 | 1,078,000 | 0.58 |
| 1998 | 71,779 | 2,427,856 | 1,130,660 | 0.47 |
| 1999 | 73,397 | 2,518,493 | 1,212,800 | 0.48 |
| 2000 | 75,928 | 3,185,558 | 1,280,590 | 0.40 |
| 2001 | 78,978 | 3,722,577 | 1,369,600 | 0.37 |
| 2002 | 81,800 | 4,038,365 | 1,434,800 | 0.36 |
| 2003 | 83,122 | 4,100,000 | 1,426,223 | 0.35 |
| \bar{T} (%) | 105.45% | 114.30% | 105.73% | 92.51% |

From Annual Report of Ministry of Fisheries (1991-2003)

Kinds of Marine Fishing

Kinds of marine fishing are diverse. According to the current statistics, there are over 20 different kinds classified into 5 categories as follows:

- + Trawling: 31.9%
- + Purse seine: 6.9%
- + Gill net: 14.5%
- + Long lining: 19.5%
- + Others: 27.2%

In terms of offshore fishing there are:

- + Trawling: 33.1%
- + Gill net: 23.8%
- + Long lining: 21.1%
- + Others: 22%

Fishing Ports

By the end of the year 2002, sixty three fishing ports have built; 47 of them are in coastal provinces and 16 are on islands.

On the whole, the logistic at these fishing ports is unsuitable and hardly synchronous; their form of activity is just “market,” which bears the characteristics of exchanging fish for other goods such as ice, gasoline, food, etc...

The followings are some weaknesses in these fishing ports.

- + Scattered and locally operating, lacking the cooperation with other localities
- + No essential support for fishermen to sell their products with true value and to provide useful services according to their requirements
- + Lacking credits activities to help fishermen.

Managing Marine Fisheries in Vietnam

Since 1991, the Organization of Fisheries Resources And Environment Conservation has been established and has horizontally operated from Fisheries Ministry to Fisheries Service in each province to monitor fishing boats.

At present, the system of fishing boat management consists of the Department of Fisheries Resources And Environment Conservation (which belongs to Fisheries Ministry) and 36 branches of 28 coastal provinces and 8 other ones.

Most of these branches have only been equipped with one or two fishing-monitor boats. Some provinces have fishing-monitor offices at the estuaries to control the boats’ activities. However, most of them don’t have proper facilities to make the monitoring efficient.

The total number of boat managing staff is 700 in which there is 170 staff in charge of boat management and over another 500 responsible for conserving fisheries resources. Most of them are non- professional; they have hardly been trained well.

Boat Registration

The number of fishing boats, mainly big boats, already registered is about 70% of the total of current boats. Small boats operating along the coastal waters haven’t been able to be managed yet.

With respect to the management, only administration management is essentially done.

Technological management is still illogical; technicians do not have enough knowledge and skills. Therefore, the technology control is just like a symbolized step in a procedure to allow fishermen to fish at sea. The quality control, especially the technological control of newly built boats, is weak. There haven’t been any criteria about equipment appropriate for each fishing boats’ characteristics.

The quantity and quality of the crewmembers haven’t been determined yet.

Issuing Fishing Permits

Issuing fishing permits for boats has been done since 1991. In 2000 together with the government’s permit cancellation, fishing permits were also cancelled. Re-issuing fishing permits was done in 2002.

In the 1990s, the Fisheries Sector had a lot of decrees of the Fisheries Ministry related to fishing permits. For example, the regulations banned destructive fishing methods, limited fishing areas, and managed fishing areas. In reality, these regulations have had certain effects on the management of marine fisheries in Vietnam.

Monitoring the Operations of Fishing Boats

In the past few years, the staff of local Fisheries Resources And Environment Conservation has become one of the main monitoring forces at sea.

Every year, thanks to the forces’ activities, thousands of law violations about conserving fisheries resources have been administratively fined, and many others have been brought to justice.

At the moment, our country has just directly monitored fishing boats (and it has not indirectly monitored by means of cameras yet), so there are a lot of problems, such as:

- + Some provinces have not regularly monitored due to the lack of money and staff.
 - + The staffs in charge of monitoring do not cooperate well.
- Consequently, violations identified and settled down are much lower than actual incidences.

Supporting Fishermen

The marine fisheries in Vietnam is in a small scale; over 95% of the marine fisheries yield is done by local fishermen. There are 6 central State enterprises and 15 local State enterprises, but 463 cooperatives and 4,300 groups of fishermen.

The support for fishermen is very limited. The trade, consumption and provision of fisheries services are mainly done by private sectors. They loan fishermen money to pay expenses, such as gasoline, ice, raw materials, and food. In return, the private lenders are the only buyers of their loan fishermen. Of course, they quite often buy at unreasonable price, which is unfair to fishermen.

Conclusion

We can evaluate the current status of developing marine fisheries in Vietnam as follows:

- + There have not been any appropriate fishing strategies in Vietnam resulting in many problems and illogicalities in the fishing process.
- + Fishing in Vietnam is still done by the people, mainly in the fishing household size. Most of the fishing boats are wooden ones with low power, operating in coastal waters, and the fishing technology is not updated.
- + The offshore fishing boats are not synchronously invested. The boat owners and crewmembers lack the knowledge of management, fisheries resources, as well as advanced fishing technology.
- + The logistic services (fishing ports, fish marketing facilities, ice making factories, cold storage, etc) have not yet met the standards; therefore, the offshore fishing boats have been operated inefficiently.
- + The assignment and devolution of management in the basis branches and regions and that of economic components have not been well organized. So, the fishing still bears the spontaneous characteristics.
- + The awareness of a sustainable fishing has not been emphasized. Most fishermen do not recognize that efficient fishing must be done together with the protection ecological environment.
- + Due to so many boats fishing in coastal waters, fisheries resources have been reduced rapidly. That leads to low productivity.
- + Vietnam Sea is in the region of monsoon tropical climate; therefore, it is directly influenced by weather changes like storms, whirlwinds, or high tides. When a storm is coming, marine fisheries is the first sector suffered from bad consequences and has the most damage.

SUGGESTIONS FOR VIETNAM FISHERIES MANAGEMENT TO OBTAIN SUSTAINABLE FISHERIES

Vietnamese government will do the followings to develop sustainable fisheries:

Planning the fishing strategies:

These strategies must be compatible with the rules of sustainable development. Based on the understanding of fisheries resources and fishing characteristics in Vietnam, those strategies will give out rational plans for different fishing areas.

Executing the principles of input- fishing management:

It means to manage the quantity and the size of fishing boats. It also means to stop the open asset for both the offshore and coastal fishing. According to these rules, it is crucial to manage the registration and fishing permits for fishing boats. However, we need suitable regulations and assignments on the basis of decentralization.

Managing on the indices of fishing:

Vietnam is in a tropic region, so its fishing areas have multi- species. Thus, its fishing boats must have multi-gears. The management on the indices of the fishing needs to be done. They consist of the number of fishing boats, the fishing productivity, the yield, the revenue, and the permissible kinds and sizes for fishing. The constant checking of the above indices of fishing production has helped us to achieve a right evaluation of fishing in each period. By doing so, we will have modern suitable management.

Table III: List of species banned from catching in Vietnam

| No. | Scientific name | No. | Scientific name |
|-----|---------------------------|-----|---------------------------|
| 1 | Pteria maxima | 11 | Balaenoptera musculus |
| 2 | Hilsa toli | 12 | Neophocaena phoca enoides |
| 3 | Anguilla Pacifica | 13 | Dugong dugon |
| 4 | Notopterus chitala | 14 | Catlocarpio siamensis |
| 5 | Semilabeo notabilis | 15 | Crinidens sarisso phorus |
| 6 | Pangasianodon gigas | 16 | Chelonia mydas |
| 7 | Paramesotriton deloustali | 17 | Dermochelys coriacea |
| 8 | Crocodylus porosus | 18 | Lepidochelys olivacea |
| 9 | Crocodylus siamensis | 19 | Eretmochelys imbricata |
| 10 | Lipotes vexillifer | 20 | Scleractinia |

From Circulation No. 01/2000/Ministry of Fisheries dated 28/04/2000

Applying the “Zero” developing policy for marine fisheries:

It means to not increase the yield over the years. Executing responsibly the fishing principles is the main content of this policy. Besides, it is necessary to establish the Marine Preservation Areas (MPA), the Artificial Coral Reefs (AR), and Re- Stocking.

Carrying out the preservative fishing policies:

Some solutions are minimizing the fishing by the means of destruction (by banning completely the use of explosives and Cyanure for fishing), determining the banned-fishing areas and time, as well as kinds of nets and sizes of mesh.

Applying the management principles of decentralization:

The current ways of fisheries management in Vietnam are still centralized. The management offices are not the local representatives, so they do not get any support from the concerned people in the region. This has a strong influence on the plan of development and execution. Decentralization has reflected not only by the policies but also by the structures and organizations of fisheries management offices at all levels.

Improving knowledge and skills for the work force:

The advanced technology helps to refine the technological procedures in forecasting fishing areas, making a plan of controlling production, fishing techniques, improving fishing gears, logistic services, cold storage, and processing sea products. Thus, training the work force to update with the advanced technology is one of the most important aspects to develop marine fisheries in Vietnam. The work force includes managers, technicians, fishermen, and workers.

Investing synchronously the system of logistic services:

On the islands and ports that close to important fishing areas, conditions of facilities need to be improved and services need to be broadened. Facilities include quays, oil tanks, and ice factories. Services consist of sales, cold storage, semi-processing, anchorage, and storm prevention.

Increasing the awareness of a sustainable fishing concept:

It needs to be done by all managing levels, as well as common fishermen. Up to now, this modern principle has been quite new to Vietnamese. Therefore, only by enhancing the awareness for the whole society, from policy makers to executors, desired results can be achieved. This can be done through workshops for people working in the field, public broadcasting, school lessons, brochures at related location.

Applying the community-based fisheries management:

By entitled to share responsibilities and benefits, fishermen determine to catch and conserve properly fisheries resources. The community-based fisheries management helps them to realize that the sea is closely connected to their lives and their future generations.

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