

## ARE THERE ANY POTENTIAL CONFLICTS BETWEEN DOMESTIC AND EXPORT PRODUCTION IN VIETNAM FISHERIES INDUSTRY?

Ly Nguyen, Faculty of Economics, Nong Lam University, Ho Chi Minh City, Vietnam  
email address: [ntyly@yahoo.com](mailto:ntyly@yahoo.com)

### ABSTRACT

Vietnam fisheries industry is expanding in scale and increasing its position in the national economy. It supplies not only a basic food commodity, but also the input for other industries, source of nutrition, employment, income, and foreign exchange earnings. The importance of fisheries, hence, emanates from its contribution to the economy to the social and physical environment. Beside the advantages, however, in the developing process, the fisheries industry also expresses some unbalances and potential conflicts among the objectives on fish supply and demand. Therefore, the main objective of this paper is to display these unbalances and conflicts related to the fast growth of the sector and increasing in domestic and export consumption. First, the difference in growth rate between fishing and aquaculture is important. Second, the different development levels in each region might make it difficult to use the territory advantages. Third, when fish production increases, overfishing and environmental impacts also rise. Fourth, we have not fully planned for using of territory to aquaculture in long-run period so the material supply for fish processing companies are not ensured. For some species, the supply is higher than the demand while others imported from other countries. Moreover, the potential conflicts between domestic market and exporting are enlarging because of the high profits and large quantities, most fishery enterprises investigate on international markets. Consequently, the quality and quantity of aquatic products in home market are not appropriately considered: the high quality products are exported for a high price whereas the quality of the seafood used by domestic consumers is low and to a low price.

**Keywords:** conflicts, domestic/export consumption, seafood quality, scale, development

## INTRODUCTION

### Fishery production in Vietnam

Fishing and aquaculture industries continue making significant contributions to Vietnam's economy. In 2006, fisheries industry accounts for about six percent of Gross Domestic Product (GDP) and earns almost \$3.4 billion in export turnover. The average rate of growth in fishery production is around 9% from 1990 to 2006 in which the production in the fisheries sector grew at an average rate of 5.7% before 1994. After this, the rate has been about 10% (Fig. 1). But the distribution of fishing and aquaculture in this outcome is different by time and supplying quantity for domestic consumption and export as well.

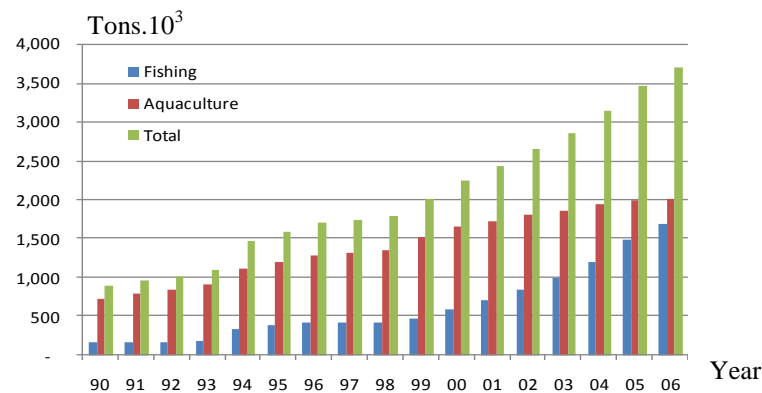


Figure 1. Vietnam fisheries production from 1990 to 2006 by thousands of tons,

**Fishing**

In Vietnam, fishing is divided into two main fields: marine fishing and inland fishing with the following characteristics:

**Marine fishing:** generally, the marine fishing in Viet Nam is small scale, operating mainly in coastal areas. Due to the over accumulation of fishing efforts, the coastal resources began to show signs of overexploitation, some marine species of high value have been overexploited. For this reason, fisheries authorities of Viet Nam decided upon policy for the coastal fisheries restructuring, i.e. by developing offshore fishing and shifting some groups of fishers to other fields of business activities such as aquaculture, trading, logistics, tourism services, entertaining services, etc. in order to reduce the fishing pressure on these areas [13].

**Inland fishing:** fishing from freshwater environment is named inland fishing. The totally national inland capture production ranges from 200,000 - 250,000 tons annually. This is an important source of subsistent food for people and also a supply of many valuable products [13].

Vietnam inland fishing industry is increasing annually in term of quantity and scale. From 1990 to 2006, the average growth rate of fishing is 6.35% or 97,575tons/year. However, the distribution of each territory is different (Fig. 1 & 2)

Overallly, the Mekong delta is the leading region in the inland fisheries industry in Vietnam with an annual growth rate of 4.03% or 26,673 tons/year. The central region is the sencond largest area in quantity with a growth rate of 5.7%/year, equal to 23,460tons/year. Meanwhile, the region having the lowest inland fishing in Vietnam is the highlands. The inland fishing quantity in this area has not changed in the whole period although there were some years where it increased or decreased.

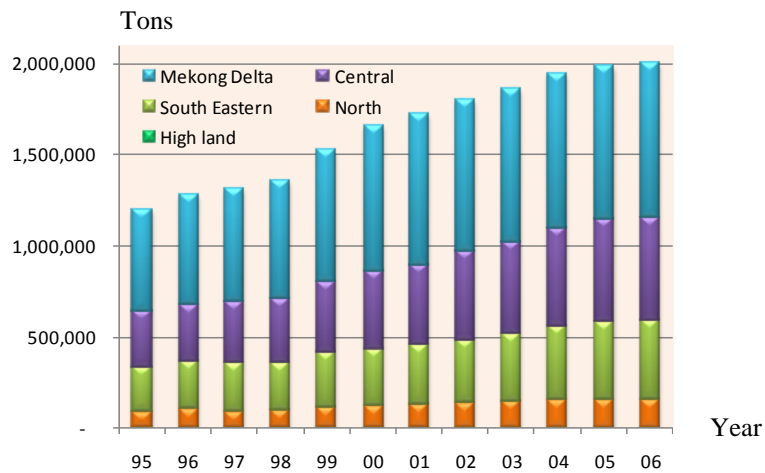


Figure 2. The production of fishing quantity in each region in Vietnam by tons.

**Aquaculture**

Because of the rich potential, aquaculture development in Vietnam is high and is the third largest country in the world after China and India. Vietnam’s aquaculture operates in marine, brackish and fresh waters, all of which are widely available throughout much of the country. The total water surface area using in aquaculture increases annually as the result of the great contribution from Mekong delta region of 289 million ha. After eleven years, this area rises more than double as 699 million ha in 2006. Whereas the area of water surface in other areas expanded a little bit (Fig. 3).

Consequently, the aquaculture production increased significantly. Especially, from 2000 to 2006, where total production increase from 589,595 tons to 1,694,272 tons respectively at a yearly growth rate is 19.73% (Fig. 5).

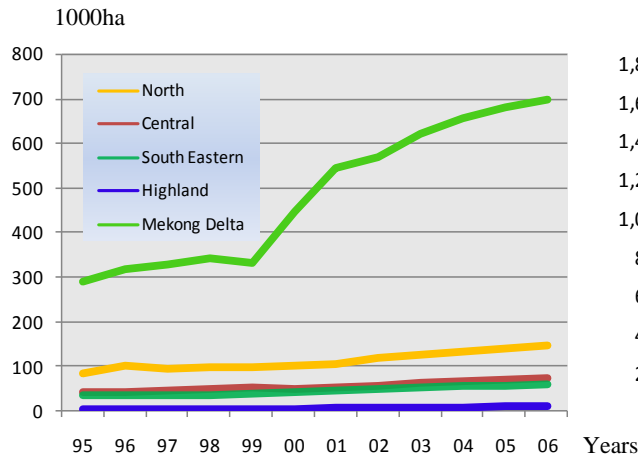


Figure 3. Total water surface area in different regions.

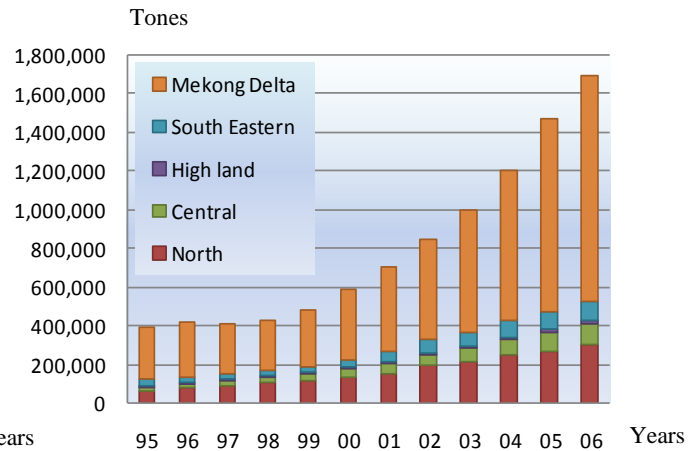


Figure 4. Total aquaculture production

This overall view of Vietnam fishing and aquaculture illustrates the position and scale of fishery in Vietnam as well as a development potential for the future. However, Vietnam fishery industry is dealing with potential conflicts in their development which is discussed in following sections.

***The growth rate of fishing and aquaculture***

Prior to 2000, fishing developed faster than aquaculture in Vietnam fishery industry. In 1990, aquaculture products just accounted for 18% of fish products, while 78% of fish came from fishing. However, because of the overexploitation and exhausted, fisheries resources in-shore areas, in 1997, the Vietnam government proclaimed the Offshore Fishing Development Scheme to stabilize the inshore fishing and to renew the fish stocks in-shore areas. After 2000, some experts in fisheries predicted that the fish resources in marine region are exhausted. Consequently, fisheries authorities and fisherman have conducted a strategy to develop and cultivate aquaculture production by developing areas for intensive aquaculture farming, improving production techniques and expanding production areas. As a result, aquaculture has made a significant impressiveness in the Vietnamese fisheries industry in recent years and has increased its market share from 26.2% of total fish production in 2000 to approximately 46% in 2006 (Fig. 2).

Overall, Mekong Delta River takes the leading position in fishing and aquaculture because of the long coastal areas in this region and the fish diversity located along Mekong Basin. Besides the Mekong delta, the Central territory is the second largest in fishing quantity and the South Eastern is the third largest region. In aquaculture, the North region is the second largest after Mekong delta; with the Central areas and South East are almost equal after the North region.

## SOME RELATED ISSUES COME TO VIEW WHEN EXPANDING THE FISHERY INDUSTRY

- At first, an issue occurring while fishing and aquaculture are going to increase in quantity but the most of fishermen and aqua-culturists is small-scale producers. In 2006, 77% of households conducting aquaculture have under 0.1ha of pond area and another 7% from 0.1-0.2ha [5, page 6].

- It is the new perspective for the Vietnamese economy when fishing and aquaculture increases and expands in scale and quality. However, there are some issues related to overfishing and environmental impacts that we have to be concerned about.

+ **Inshore overfishing:** The fish resources in this area are severely overexploited. Around 80% of the vessels are fishing in the inshore areas, but this area just accounts for 11% total sea area belonging to Vietnam country. It means that inshore region is the traditional place for fishing. This pressure will increase because the number of low capacity and low technology boats is going up. Increased capture pressure in inshore waters can lead to increased capture pressure in coastal water areas, the good areas for reproducing and habitation of many kinds of fishes. Meanwhile, in the offshore area, the total fishing has been 600,000tons comparing to the allowable catch is 1.1 millions tons [12].

+ **Environmental impact:** Developing aquaculture is essential to meet future demand for aquatic products, but when aquaculture is expanded, the environment and natural resources in those areas will be effected. In addition, due to the limited capacity in the country to promote and guide its sustainable development, in fresh, brackish, and marine environments along with developing spontaneously, the natural resources are overexploited and the environment will become polluted. Vietnam fishing and aquaculture industry are facing such natural resource and environment problems because the fishing vessels have not followed the regulations implemented to prohibit destructive catching methods and environment pollution from aquaculture expansion.

Although the Vietnam's regulations to prohibit destructive catching methods have been stated clearly in Vietnam fisheries law from 2003, many fisherman have not followed them. In 2005, there were more than 80% of the Vietnamese boats fishing in in-shore areas using destructive catching tools such as explosives – dangerous chemical substances, potential pulse, and strongly intensive light. If continued, these practices will damage the marine environment and resources. A survey conducted in 1999 said that: there are 21/28 provinces, locating along coastal areas, are using the destructive catching methods. In which, the leading provinces are Quang Ninh, Nghe An, Thua Thien Hue, and Quang Nam. Recently, the number of farmers using the explosive substances has decreased meanwhile a number of fishermen using dangerous chemical substances is going to be popular. The dangerous chemical substances can destroy the coral reef system and aqua-biology larvae. Moreover, these substances are going to impact our environment and the health [18].

Aquaculture industry is the solution for reducing pressure in fishing. But because of the unplanned development in the sector, this industry has caused environmental pollution. Aquaculture industry has developed not only based on the intensive and semi-intensive models, but also on inter-ecological cultivation in which shrimps are cultivated in rice fields and mangrove forests. Consequently, fishermen cut down the mangrove forests for cultivating shrimp, especially in period 1994-1995. In addition, with the industry aquaculture, farmers used many industrial feeds and biological products. The residuals of these substances combine with fish droppings are polluting the environment. Moreover, it is difficult to control fish's diseases in these cultivation models. Especially, when the number of fishermen in aquaculture increases, cultivating density increases because the land is limited. So the disease outbreaks are easy to develop and affect to the environment as well as others species. For example, in April 2008, the number of lobster cages went down 50% comparing to the same time in last year in Nha Trang Bay because of the disease outbreaks causing by water pollution.

The total loss was more than 113 billions VND that has affected strongly on fishermen income and lobster resources [17].

Additionally, the more in number of fishing boats, the larger in solid waste discarding to the sea. The average amount of solid waste discarding to the environment of a fisher is 0.5kg. Usually, there are four to five fishermen in one boat, and there are 400-600 fishing boats per day. Hence, total solid waste from fishing boats is around 200-300kg/day [9].

+ **Fishing productivity**: the national gross fishing production has increased annually. However, the fishing productivity has gone down. From 2000 to 2006, the fishing productivity decreased gradually from 1.2tons/CV/year to 0.67tons/CV/year. This information indicates the low effective in Vietnam fishing industry caused by low vessel capacity, low fishing skill, and lacking of high fishing technologies. Meanwhile although the fishing vessel capacity increased from 1,358CV to 3,007CV (2.2 times), the fishing production increased from 1.7 – 2 million tons (1.2 times).

**Table I: Vietnam Fishing Productivity from 2000 to 2006**

Year	2000	2001	2002	2003	2004	2005	2006
Fishing (thousands of tons)	1660.9	1724.8	1802.6	1856.1	1940.0	1987.9	2001.7
Total fishing vessel capacity (thousands of CV)	1385.1	1613.3	1947.5	2192.9	2641.8	2801.1	3007.7
CPUE (tons/CV/year)	1.20	1.07	0.93	0.85	0.73	0.71	0.67

**EXPORT AND DOMESTIC CONSUMPTION ASPECTS**

The Vietnamese fishery market has improved and developed not only in quantity, but also in quality, and fisheries products get a stronger and stronger position in domestic and international food markets. Fish is an important source of food for domestic consumption and it contributes significantly to Vietnamese exports. There are many changes in the distribution of international and national consumption. In 1980, the domestic market accounted for 97.8% of total fishery production; in 1990 this share was 86.9% and 75% in 2000. While, the international consumption increases gradually, in 1980, the total export quantity comprised 1.2% in total fishery production; in 1990 this distribution is 13.1% and 20 % in 2000 and to 2006, the export and domestic consumption rate was 22% and 78% respectively. (Fig. 5)

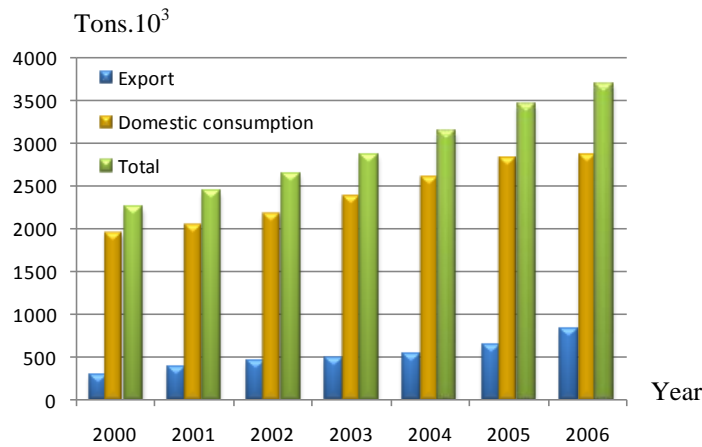


Figure 5. Vietnam fisheries consumed distribution from 2000 to 2006 by thousand of tons

## THE IMPORTANCE OF SEAFOOD IN DOMESTIC CONSUMPTION

### Current demand

Most fishing and aquaculture products are consumed by the domestic market so aquatic products are the main protein sources for Vietnamese people. Recently, the Vietnamese's demand for aquatic products has increased significantly comparing to other protein sources. Table II shows the results of surveys on Vietnamese households' living standards conducted by Vietnam's General Statistics Office in 2002 and 2004 support the claim of increased consumption of seafood per capita. Consumption of fish and seafood increased much more than any of the other sources of protein.

**Table II: Protein Source Foods, Consumption per Capita**

Protein sources	Unit	2002	2004	% change
Meat (all kinds)	Kg	15.36	16.56	7.81
Animal fat, vegetable	Kg	2.76	3.24	17.39
Shrimps and fish	Kg	13.56	17.04	25.66
Eggs (all kinds)	Piece	26.64	28.92	8.56
Tofu	Kg	4.32	4.80	11.11

From Vietnam Fishery Products Annual Report 2007

The per capita fish consumption increases annually relative to living standard and income level because when the living condition improved, the diets will improve and more protein-rich food is consumed. The variation in aquatic products in Vietnam is very rich and the most popular ones are shrimp, catfish, tilapia, and shellfish. Especially, fish sauce is a traditional additive in meal in Vietnam. A household consumes an average as of 5.8 kg fish sauce a year and it is an important product for poor people because it supplies the main source of animal protein.

### The trend in fishery domestic consumption

The FAO estimates the demands for aquatic product in Vietnam domestic market between 2005 and 2010 presented in the Table III.

**Table III: Demands for Aquatic Product in Domestic Market in Vietnam between 2000 and 2010**

	Unit	2000	2005	2010
Population	1000 pers.	77,685	83,690	90,157
Average aquatic demand per capita	Kg/pers./year	17.45	20.73	22.40
Domestic demand for aquatic products	1000 tons	1,350	1,735	2,200

From <http://www.worldbank.org.vn/WTO/Paper,%20Fishery.pdf>

As income increases and population increases, the domestic demand for fish products can be expected to increase. In 2000, Vietnam's population was of 78 million people, the demand for aquatic products was 1.4 million tons and the per capita demand was 17.5 kg/per./year, in 2005, with the population was of 83.12 million people, this rate increased to 20.73kg/per. year. The prediction for 2010, is that fish consumption per capita will be 22.4 kg/year and that the national consumption will be 2.2 million tons. The total population is expected to grow to 90 millions. The demand for fish in Vietnam is predicted to continue to increase because of this population growth, improvements in living standards, especially in the rapid growing economies, and the development of better and more varied products for markets, as a result of advances in fishing technology, growth in aquaculture, and expansion in areas and species fished. This is the good future perspective information for fishing and aquaculture industry in Vietnam.

### The importance of fish export in Vietnam economy

Since fish products are popular and preferable in almost all countries in the world and particularly in the countries that have well developed sea and fresh water fisheries. In Vietnam, a lesser industrialized country, fish is not only used for domestic consumption, but is also the country's main exporting products.

Vietnam seafood is rapidly covering to gain high position in the world markets. Currently, fishes are exported to 130 countries comparing to 77 countries in 2003. In the 1992-2003 period, the average growth rate of fisheries export sector was 9.97%/year. In 1992, the exporting revenue was 308 million USD but after 10 years this value increased 6.6 times gaining 2 billion USD in 2002. Hence, after 20 years of renewing, fisheries have become an important economic sector, with their contribution representing more around 6% of the Gross Domestic Production.

In general, fishes are the main export products in Vietnam with a high stable growth rate. Table IV shows fisheries export value in 2005 was \$2.7 billion, the average annual growth rate was approximately 13%. For a long period, fisheries have been the most important foreign currency generation in the Vietnamese economy, with about 8 – 12% of total exporting turnover. The three main markets for Vietnam fish products are USA, Japan and EU importing 65% of Vietnam's total fisheries export.

**Table IV: Vietnam Fisheries Export Turnover by Years**

Years	1992	1996	2000	2001	2002	2003	2004	2005
Fisheries export turnover (USD millions)	308	697	1,479	1,778	2,023	2,200	2,397	2,728
% increase rate compare to previous year		12.1	57.5	20.2	13.8	8.7	8.98	13.81
% in Vietnam total export turnover	11.9	9.6	8.7	10.3	11.0	9.6	9.04	8.28

From <http://www.fistenet.gov.vn>

Generally, catfish and shrimp by far are the largest share of aquatic exports, accounting for over 22% and 44%, respectively, of total export earnings in 2006. The total fish production from both capture fisheries and fish culture was 3.7 million tons, of which the export was 0.8 million tons. This means that about one-fourth of the total production was exported while three-fourths were consumed domestically. Although the volume of fish exports is small comparing to domestic consumption, the value of the exports is relatively high.

**Table V: Vietnam's Fishery Exports by Product**

	2005		2006		2007 (Jan-Mar)	
	Volume (MT)	Value (\$000)	Volume (MT)	Value (\$000)	Volume (MT)	Value (\$000)
Frozen shrimp	159,243	1,371,380	158,447	1,460,586	23,369	236,858
Chilled/frozen Fish	274,602	687,720	444,709	1,145,086	117,183	315,101
<i>In which:</i> Cat fish	140,703	328,082	286,600	736,872	80,851	206,338
Tuna	29,761	81,173	44,822	117,133	11,677	34,075
Frozen cephalopods	61,956	182,198	69,763	222,190	16,415	53,515
Dried Aqua products	35,910	130,300	35,479	142,195	8,777	33,249
Others	95,210	367,200	103,112	378,234	20,683	76,938
<b>Total</b>	<b>626,921</b>	<b>2,738,798</b>	<b>811,510</b>	<b>3,348,291</b>	<b>186,427</b>	<b>715,661</b>

From Vietnam Annual Fishery Report 2007

## **POTENTIAL CONFLICTS BETWEEN DOMESTIC AND EXPORT DEMAND IN VIETNAM FISHERY INDUSTRY**

### **Producers are focusing on export markets**

Although aquatic production has been mainly consumed domestically, almost fish processing companies concentrate on exporting while domestic markets are largely neglected. In recent years, because of the bird flu, the world's consumers shift to fish products and foreign companies have increased their demand for fish from Vietnam. Therefore, fishing enterprises focus on export production and do not have time to serve the domestic market. Answering in VnExpress Newspaper on Dec.06, 2005, the deputy secretary of Vietnam Association of Seafood Exporters and Producers - VASEP Mr. Truong Dinh Hoe said: "In Vietnam there no regulations requesting fishery enterprises to keep one part of their products for domestic market. And then the firms concentrate to invest in the high benefit markets". In his opinion, when the demand in the world is increasing, fishery enterprises have to supply the international markets. For fishery companies, export is the only activity that brings more profits.

Until now, there are not any overall statistic reports on the export and domestic markets of every fishery enterprises in Vietnam. According to information from Vietnam National Sea-products Corporation, the total quantity of this corporation producing for domestic market is just of 3.1% the total production. According to Mr. Nguyen Huu Dzung, general secretary of VASEP: "exporting one ton of fishery products is easier than selling one kilogram in the national market". He further explained: "Fishery enterprises are dealing with the challenges in the domestic market because they are only familiar in selling the big quantity called containers and follow the product ordering protocols overseas from partners. While in domestic consumption, the market is retailed. If the company wants to deliver their products, they have to setup complex market chains, do carry out market research.

### **Supply and demand do not meet together in the market**

Another issue in Vietnam fisheries industry today is that supply and demand do not meet. Almost all fishermen take up fishing and aquaculture spontaneously without long-term plans. Especially when Vietnam participate the international market, the price depends on demand and supply in the world, therefore, Vietnam fishery enterprises can not control the price. On the other hand, virtually, the exporting companies do not plan well and there are not any contracts between fishermen and the companies. Consequently, input resources for the company and input price are not stable. In fishermen's perspective, when they get good harvest, this means that the supply will increase in the market so the price will go down and conversely, if the supplying quantity decreases, the price will increase. This is the vicious circle not only in fisheries industry, but also in agriculture industry in Vietnam. Moreover, if the world demand for fish increases, fishery processing company will expend the capacity, their demand for fish resources increase. At that time the fish price increases, which encourage fishermen to flock into cultivating aquaculture and fishing. At a result, the supply is over the demand, the fish price will decrease, there are farmers could not sell their fishes.

For instance, catfish is an important export product in Vietnam, particularly in the Mekong Delta. In the years before 2006, both fish export companies and fishermen got high profit from exporting catfish. Because of the high profitability, farmers flocked into farming this fish without any restrictions. And then in the end of 2006, the supply was higher than demand, the price decreased, and the fish could not be sold or had to be sold for a low price. As a result, some famers paused cultivating, some others stopped because they did not have enough money to continue after debiting from the last season. In the early of 2007, the numbers of catfish farmers decreased; catfish quantity in the market fell and the catfish price increased. Now, the catfish market looks stable and profitable so many famers are going into this



cultivation again and the government has not issued regulations to help the farmers stabilize the production. In addition, the input for catfish processing company depends on catches of juveniles from fishermen, thus sometimes they do not get enough input from domestic production and have to import.

**Table VI: Vietnam's Fishery Product Imports by Commodity**

<b>HS Code</b>	<b>Commodities</b>	<b>2005 (\$)</b>	<b>2006 (\$)</b>	<b>2007 Jan-Apr. (\$)</b>
0301	Live fish including ornamental fish and fish for breeding	793,299	322,275	109,406
0302	Fish, fresh or chilled, excluding fish fillets and other fish meat of heading 03.04	4,016,155	4,794,032	4,515,851
0303	Fish, frozen, excluding fish fillets and other fish meat of heading 0304	20,770,433	30,393,326	29,452,545
0304	Fish fillets and other fish meat, fresh, chilled or frozen	9,560,235	9,604,586	3,325,920
0305	Fish, dried, salted, smoked fish; flours, meals and pellets of fish	785,246	1,144,978	312,958
306	Crustaceans, live, fresh, chilled, frozen, dried, salted, flour, meals and pellets of crustaceans: shrimp, crabs	39,647,903	37,468,453	25,748,238
0307	Mollusks, live, fresh, chilled, frozen, dried, salted; aquatic invertebrates other than crustaceans and mollusks; flours, meals and pellets of aquatic invertebrates other than crustaceans	6,867,795	12,088,885	7,150,069
<b>Total</b>		<b>82,441,066</b>	<b>95,816,536</b>	<b>70,614,987</b>

From Vietnam Fishery Products Annual Report 2007

In recent times, although some kinds of fishes have a higher supply than demand whereas some fish processing companies have to import the raw materials from other countries not only for export industry but also for domestic consumption. In 2006, Vietnam imported fish and fishery products at a value of \$95.8 million, up 16.2 percent from 2005. In just the first four months of 2007, fish import totaled \$70.6 million, which is 73.7% of the total for 2006. This implies that import will have a sharp increase in 2007. Strong demand from the domestic market and the processing industry, particularly for fish and crustaceans is believed to drive the rise in imports. Much of the increase in domestic demand comes from the hotel and restaurant industry as well as supermarkets [8].

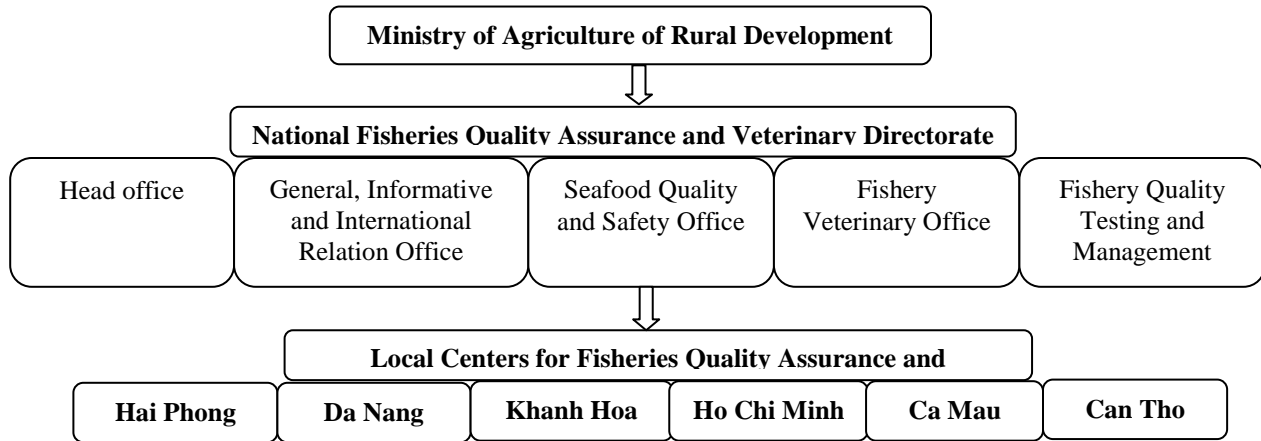
Vietnam is importing fish and fishery products from several countries. China, Thailand, Indonesia, Taiwan, and Malaysia provide most live fish for ornamental gardens and breeding, while live salmon is imported from Norway and the United States. Fresh, chilled and frozen fish, imported for domestic consumption, is imported from Japan, New Zealand, Australia, Norway and other countries. Vietnam also imports crustaceans (shrimp, crabs) for breeding and processing; black tiger shrimps are imported from China, Singapore and the United States for breeding, while shrimp and shrimp products for processing are usually imported from China and India [8].

#### **Quality of domestic consumption and export products (quality and quality control system)**

*National system for controlling seafood quality:* the National Fisheries Quality Assurance and Veterinary Directorate (NAFIQAVED) was launched in 2003.

This is the organization assisting Vietnam government in control of the fishery quality, sanitation and phytosanitation. The system covers the whole process from input producing, processing to consuming in order to prevent fish diseases, certificate the safety products and protect consumer’s health. This directorate, which is under the Ministry of Agriculture and Rural Development, has six local centers located in the main fishing areas in Vietnam including Ho Chi Minh City, Hai Phong, Khanh Hoa, Da Nang, Can Tho and Ca Mau. (Fig.1)

**Figure 6: Organizational Structure of Fisheries Quality Assurance & Veterinary System**



In general, Vietnam fishery plants follow the national sanitation and phytosanitation regulations for export products combined with the regulations of the importing country or the rules of imported markets. Such as, when fisheries companies are going to export their products to US market, they have to strictly go along with the US market’s guidelines about the sanitation and phytosanitation. Or the companies export their products to EU countries; they ought to follow the EU market’s guidelines. However, most fishery products consuming in domestic market have not mentioned in the quality aspect. In other words, domestic consumed fisheries leave antibiotic content checking.

**Current issues in domestic and export aquatic products**

Recently, the public media systems talk about the quality issue of Vietnam seafood export products. Because of the Chloramphenicol remains, some countries have restricted Vietnamese seafood. Such as, throughout several times Japanese Consumer Preserve Union found the seafood imported from Vietnam still contains antibiotic substance. So, on July 2007, Japanese fisheries authorities declared that they will stop import aquatic products from Vietnam if they detect that the Chloramphenicol still remains in these products one more time [17]. Additionally, almost all batches of seafood from Vietnam have been rejected because of antibiotics remains. The domestic consumers worry that how did the company use that batches of seafood? Or do they sell it in domestic markets? To now, there have not any answers for these questions.

So far, most seafood in domestic supermarkets is not checked by the quality management organization or reported if Chloramphenicol remains. Rarely, some staffs from government quality authority randomly test the quality level in some markets. If they detect fish products contaminated by Chloramphenicol or that is unsafe, the shop owner will be penalized 3 to 5 million VND and the products will be confiscated. That is not strong enough to threaten the producers. Almost all government programs for testing antibiotic have mainly focused on the exports products, so not only producers, but also consumers think that it not serious in the home markets. Answering on VnEconomy newspaper on July 16, 2007, director of Maximark supermarket, Ms. Nguyen Phuong Thao said: “to bring the seafood in the supermarkets,

producers have to get the safe food certificate but actually it is just an official paper because the producers only submit this paper one time for 6 months". And Ms. Hai Nguyen Thi, Director of Ha Noi supermarket said: at the beginning to now, there has not any quality authority coming here to get the sample for testing the safe level of seafood, sometime, they came here to get the testing sample of pork, beef, vegetable, fruit, candy, cake or milk but not fish".

On the other hand, the quality of materials used for seafood processing are uncontrollable. Almost all seafood export companies have not set up the system for quality testing of the input as well as output because of the limited budget. So at the input side, the fishermen's decision will effect to company's products. In recent time, there were many batches of food exported to US, Japan, and EU that have been rejected they were processed from materials infected by chloramphenicol or antibiotic. There were many reasons causing that consequence, but the most important one was the food security and quality assurance behavior of whose working in fishing and aquaculture. Because of the profits, the fishmen and fisheries agents have used Chloramphenil to keep the fish fresh for a long time with low cost. In the past, every fishing boat had to bring so much heavy ice to freeze fishes with the high cost and fishes are kept fresh in a short time. Instead of that, now a day, fishermen just need to bring the small box of Chloramphenil to keep their fish fresh for a long time with the low cost. As a result, almost fishes used in fisheries processing companies have been contaminated chloramphenicol so their outputs stills are affected by this substance.

In addition, under current laws, seafood products must be supervised and examined by the National Fisheries Quality Assurance and Veterinary Directorate before shipping. However, there were some strange stories that, NAFIQAVED has examined the fisheries export products already, then provided the export certificate for the company. And exporters had to pay \$30/container for the antibiotic exam cost. But when exporting these products, the FDA (US Food and Drug Administration) and the food security agents from importing countries still found antibiotic residues in this seafood. It can be explained that, the inspectors just took samples at random, while a consignment of seafood may include products processed from different sources of material. In some cases, the inspections carried out by different inspection centers giving different results.

And there are more questions for the Vietnam fisheries industry: Where did the rejected batches of seafood go? Vietnamese consumers have not received the answer from the producers. One more questions asking now are: how about the quality of domestic products when they are produced with the same techniques and the same materials?

## **CONCLUSION**

Generally, Vietnam fisheries industry is going to develop and strengthen its role as a significant part in the economy. It not only supplies seafood for domestic use but also contributes to export earnings. Nevertheless, there are problems to be concerned about and that might be even bigger in the future. First, the difference in growth rate between fishing and aquaculture is important. Second, the different development levels in each region might make it difficult to use the advantages. Third, when the fish production increases, overfishing and environmental impacts also rise. Fourth, we have not planned for using of territory to aquaculture for a long period so the material supply for fish processing companies are not ensured. For some species, the supply is higher than the demand while others we have to import from other countries. Moreover, the potential conflicts between home market and exporting are enlarging. Because of the high profits and large quantities, almost all fishery enterprises focus on international markets. Consequently, the quality and quantity of aquatic products in home market are not considered appropriately: the high quality products are exported for a high price whereas the quality of the seafood used by domestic consumers is low and to a low price.

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