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Before and after the Catfish War: Market analysis

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List of abbreviations

AFA:	An Giang Fishery Association
AFASCO:	AFA Joint Stock Company of Importing and Exporting Aqua-products
AFIEX:	An Giang Afifex Company
AG:	An Giang province
AGIFISH:	An Giang Fisheries Import and Export Joint Stock Company
BTA:	Bilateral Trade Agreement
CATAO:	Can Tho Agricultural and Animal Products Import Export Company
CFA:	Catfish Farmers of America
DARD:	Department of Agriculture and Rural Development
DOC:	Department of Commerce
EPCs:	the export and processing companies
FDA:	Food and Drug Administration
GV:	Government
ITC:	International Trade Commission
MD:	Mekong Delta
NAMVIET:	Nam Viet Company Limited
USA:	United States of America
USD:	Dollar
1 USD =	13,772 VND in 1999
1 USD =	14,065 VND in 2000
1 USD =	14,663 VND in 2001
1 USD =	15,441 VND in 2002
1 USD =	15,450 VND in 2003
1 USD =	15,730 VND in 2004
1 USD =	15,807 VND in 2005
VND:	Vietnamese Dong
VASEP:	Vietnam Association of Seafood Exporters and Producers
VN:	Vietnam

1. Introduction

The Mekong Delta in Vietnam (see figure 1 and 2) is the biggest supplier of *Pangasius* species basa and tra fish products. The An Giang province (AG) on the border to Cambodia is the centre of this production; 70 to 80% of the Vietnamese tra and basa fish come from this region. Socio-economically, for the past decades, the basa and the tra fish production has very much contributed to rural industrialization and modernization, employment, poverty alleviation, an increase in income, and meeting the goals of the economic transition policy.

The capacity of the tra and basa raw material hasn't stopped increasing for ten years. Illustratively, AG reaped 152,507 tons of live fish in 2004, increasing about 77% from 1995. A number of reasons positively influence the tra and basa fish development such as: (i) the tra and basa fish have met domestic and international demands of quality as food safety and hygiene; (ii) the tra and basa fish have specific characteristics: a special flavour, coloring and lean (low-fat); (iii) the price is attractive because of the low production cost through cheap prices of labour and fingerling; (iv) the AG is active through the fingerling socialization program in 1999. Before, the fish farmers depended on the source of natural fingerling, and they had to catch natural fingerling fish themselves from rivers, or they had to buy them from others whose main occupation was to fish and to catch natural fingerling fish.

Because of the development potential plus the tra and basa farming expansion of economic transition under the Government policy, many producing and export companies have entered and started their tra and basa business. Until now AG has totally seven companies: AGIFISH, AFIEX, NAVICO, TUAN ANH, CUU LONG, VIET AN, AFASCO, instead of the two main companies consisting of AGIFISH and AFIEX ten years ago.

Visibly, the tra and basa fish have positive impacts on the regional and the national economic development as well. However, many fish farmers still encounter many changes and threats. The Vietnamese basa and tra exporters face many barriers, such as a penal duty of anti-dumping, imposed on the tra and basa fillets by the United States of America (USA), through the International Trade Commission (ITC), as well as technical barriers (e.g. the addition of prohibited antibiotics by the Food and Drug Administration (FDA)). Consequently, a lot of fish farmers must shift their main occupation to other farming unskilled cultivation, whereas many of them have completely failed and went out of production. This had a severe impact on social welfare, such as the increase in the unemployment rate of the rural region, the results in destitution, the loss of investment costs on ponds and cages and so on. Meanwhile fish farmers must still bear a huge interest rate from banks with respect to loans for their initial investment cost.

This paper will focus on the following research objectives:

- (1) Evaluate the situation of the production and the consumption before and after the catfish war
- (2) Evaluate the frame of policy changes after the catfish war for sustainable development
- (3) Discussion and Conclusion

Figure 1 : The map of Vietnam



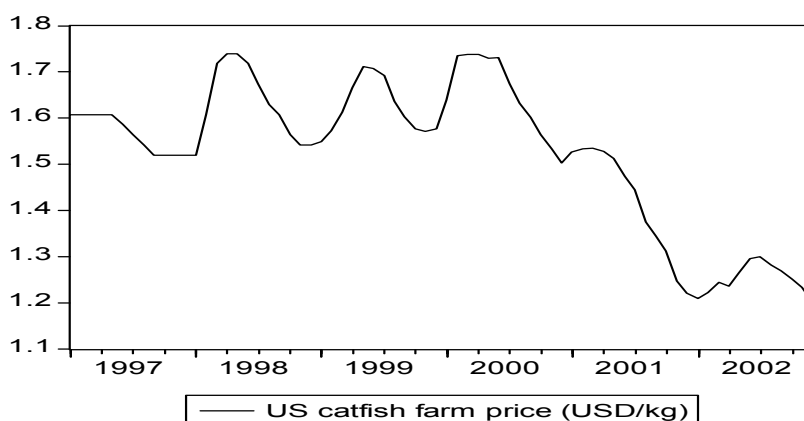
Figure 2 : The Mekong Delta provinces



2. Overview of the catfish war situation

Over the last few years, thousands of kilograms of Vietnamese tra and basa have snatched a large percentage of the USA market. Imports to the USA subsequently soared to 21,000 tons of fillets in 2002. A corollary of this was that the USA domestic producer prices dropped from 1.6 USD/kg in January 1997 to 1.2 USD/kg in December 2002, as depicted in Figure 3. After all, Vietnamese catfish exports had rapidly captured 20%² of the USA catfish market. Consequently, on 28 June, 2002, the Catfish Farmers' Association (CFA) of the USA and eight seafood production companies lodged an application with the US ITC to sue Vietnamese Association of Seafood Exporter and Processors (VASEP) for dumping catfish products in the USA. They claimed that since the catfish produced by them counts for 85.7 percent³ of the total US market, they were in effect acting on behalf of all catfish farmers in the USA. The defendants named in the case are 56 seafood processors in Vietnam, although some of the named firms have nothing to do with the varieties of catfish produced for export in Vietnam.

Figure 3 : Average monthly price for the USA farm-raised catfish



Source: Monthly catfish producing report, National Agricultural Statistics Service, USDA.

The crux of the investigation appears to lie in the conclusion that the USA investigators will draw regarding the nature of Vietnam's economy, as well as whether the dumping charges have any basis in fact. To do this, first of all, trade description legislation was used to restrict the name "catfish" solely to Ictalurids grown in the USA, so denying the basa a key brand advantage, especially because the Vietnamese imported fish was much cheaper than the local counterpart. This is the first success of USA catfish producers in convincing the USA Congress to force Vietnamese exporters to change the name of their product to "tra" or "basa".

² www.aseanfocus.com/asiananalysis/article.cfm?articleID=716

Figure 4 : Tra en basa fish fillets

For purposes of the investigation into Vietnam, the product covered is frozen fish fillets, including regular, shank, and strip fillets and portions thereof, whether or not breaded or marinated of the species *Pangasius Bocourti*, *Pangasius Hypophthalmus* (also known as *Pangasius*), and *Pangasius Micronemus*. The subject merchandise will be hereinafter referred to as frozen “basa” and “tra” fillets, which are the Vietnamese common names for these species of fish. These products are classifiable under tariff article codes 0304.20.60.30 (Frozen Catfish Fillets), 0304.20.60.96 (Frozen Sole Fillets, NESOI), 0304.20.60.43 (Frozen Freshwater Fish Fillets) and 0304.20.60.57 (Frozen Sole Fillets) of the Harmonized Tariff Schedule of the United States (HTSUS).

On November 8, 2002, the Import Administration of Department of Commerce (DOC) announced its determination in the inquiry into the status of Vietnam as a non-market economy country or a market economy country under USA antidumping and countervailing duty laws. Meanwhile the DOC also said that Vietnam offered subsidies to fish producers, resulting in market distortions. Another conclusion was that the export price was below the production cost. Based on this report, the DOC decided to raise tariffs on Vietnamese frozen tra and basa fillets from 37% to 53%. Some Vietnamese exporters must bear an unjust tax level shown in table 1.

Table 1 : Anti-dumping duty levied by the DOC

Vietnamese Exporters	Anti-dumping Duty (18-06-2004)	Anti-dumping Duty (18-07-2003)
AGIFISH Co	44.76%	47.05%
CATACO	45.55%	45.81%
NAVICO	52.90%	53.68%
VINH HOAN CO., LTD	36.84%	36.84%
Respondent with “separate rates”	44.66%	45.55%
Vietnam-wide	63.88%	63.88%

Source: VASEP, Final determination in the Anti-dumping duty investigation of certain frozen fish fillets from Vietnam⁴

³ The Mississippi-Mekong Catfish worm, www.peoplesfoodsovereignty.org/docs/doc9.htm.

⁴ www.ita.doc.gov/media/FactSheet/0603/catfish_final_061703.html.

The dumping charges have shocked the VASEP, the Vietnamese Government and practically all those familiar with the catfish industry in Vietnam, including the US Embassy and a number of USA businesses based in Vietnam. There are clearly no acceptable, rational reasons for such a case. Vietnam has been in transition from a centrally planned to a market economy since 1986 and for all practical purposes, is now a market economy. It is under an IMF-World Bank structural adjustment regime and has dismantled whatever meager subsidies it was able to provide in the past to its agriculture producers and fishers. In fact, proof of Vietnam's status as a market economy was one of the preconditions of the US-Vietnam Bilateral Trade Agreement (BTA) that was signed by the two countries in 2001. And in any case compared with the US, Vietnam is a poor country, and simply does not have the resources to provide its productive sectors with the levels of subsidies and supports that the USA provides to its own producers.

The dumping investigation and anti-dumping measures were regrettable for a host of reasons. From an economic perspective, this was not justified. The conclusion of Vietnam not being a market economy is unwarranted. First, while Vietnam is not yet a fully-fledged market economy, the domestic tra and basa market in Vietnam has many characteristics of a competitive market, in which the forces of supply and demand largely determine market outcomes. Secondly, from a purely theoretical standpoint, even though Vietnam is not a market economy, the USA and Vietnam can still engage in mutual beneficial trade. Thirdly, the label of a non-market economy can be conveniently applied to many transitional economies (including China and the East European countries) with potentially harmful consequence for free trade⁵.

3. Vietnam-US Bilateral Agreement

On July 13, 2000, USA and Vietnamese negotiators signed a sweeping BTA. Following affirmative votes in Congress and the Vietnamese National Assembly, the BTA entered into force on December 10, 2001, when the two countries formally exchanged letters implementing the agreement. Under the deal, the USA will extend temporary most-favoured nation (MFN, also known as normal trade relations) status to Vietnam, a step that will significantly reduce USA tariffs on most imports from Vietnam. The National Assembly late 2001 paved the way for Vietnam's entry into the WTO by dramatically opening up Vietnam's economy, bringing it more in line with international norms. The BTA was to remain in effect for a 3 year period; to be extended automatically unless terminated by either party at least 30 days before the end of a term.

The BTA is based on international rules, including those of the WTO. However, given Vietnam's low level of development, the BTA recognizes that Vietnam requires a transitional period to meet some of these standards. In some aspects, the BTA is more liberalized than the WTO. A comprehensive set of commitments including reduction of import tariffs; phased elimination of quantity restrictions and liberalization of trading rights, which aims to improve its market access, has been made under the framework of the BTA by Vietnam. Over a period of 3 to 7 years Vietnam will cut tariff rates and reduce non-tariff barriers over a wide range of products, open up areas of the service sector to greater

⁵ Prof. Binh Tran-Nam, Australian Taxation Studies Program (Atax) University of New South Wales.

foreign investment, and generally ease investment rules. With regard to agricultural goods, Vietnam has made the following commitments:

Trading rights and distribution rights: All Vietnamese firms, and over time US persons and firms, will be allowed to import and export freely products not subject to explicit restrictions. All domestic enterprises, upon entry into force of the agreement (i.e. December 2001), shall be allowed to engage in trading activities in all products except those subject to specific restrictions (where quantitative limitations or reservation to State trading enterprises are in place).

State trading: Vietnam commits that its State trading enterprises shall make purchases or sales solely in accordance with commercial considerations including price, quality, availability, marketability, transportation and other conditions of purchase or sale, and that it shall afford the US enterprises adequate opportunity in accordance with customary business practice, to compete for participation in such purchases or sales.

Import tariffs: Current tariff rates on 195 agricultural products among 244 HS 8-digit items subject to tariff reduction commitments under the BTA will be reduced by between 20 and 75 percent over 3 years, and exceptionally over 6 years with regard to 11 tariff lines.

Quantitative restrictions: Nearly all non-tariff barriers on imports and export restrictions that are inconsistent with the GATT will be phased out. The agreement also specifies phase-out periods ranging from 3 to 5 years (from coming into force of the agreement, i.e. December 2001) for import quantity restrictions on 64 agricultural import items, and to 10 years for 5 tariff lines of sugar. A 4 years phase-out period for import quantitative restrictions applies (accounting for 44 out of 69 agricultural products subject to import quantitative restrictions removal). These products include some important items that are at present subject to some types of non-tariff barriers such as licenses of the Ministry of Trade (e.g. vegetable oil), and requirements for local material area development (e.g. milk, vegetable oil).

4. Market analysis before and after the Catfish War

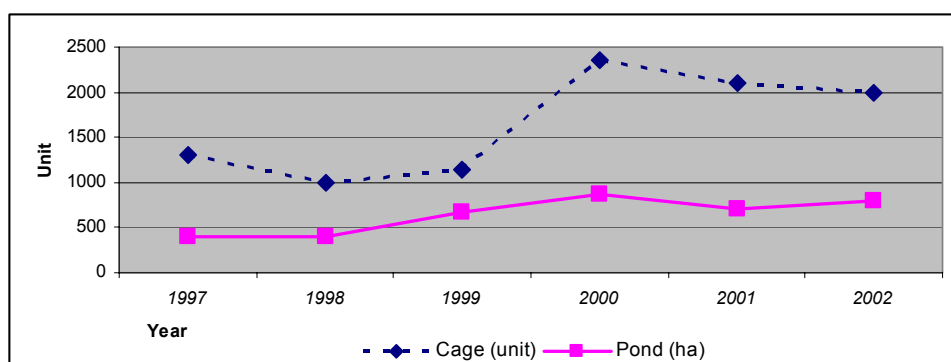
4.1 The Before the catfish war (1995 - 2002)

a. Production situation

The occupation of the basa and tra fish breeding has been traditional for fish farmers living in the Mekong Delta (MD). Tra fish makes up the bulk of production, it is raised in ponds and in cages anchored on the MD tributaries. Before the reunification of the country in 1975, tra and basa fish used to be domestically consumed and exported to outside markets in Hongkong, Singapore and Taiwan. In the mid-1980s, catfish began to be exported again, initially in the form of fillets to Australia. Markets later expanded to Hongkong and Singapore in the early 1990s and to North America and the European Union in the mid 1990s. The expansion of markets and demand led to further development of the basa and tra fish farming. As can be seen in Figure 5 there was a substantial increase in catfish production in 2000, as many fish farmers entered the catfish culture in cages. Thereby catfish cultured in cages,

plays a key position in increasing the capacity, with the number of cages amounting in 2002 to 2000 cages, 53,8% higher than in 1997.

Figure 5 : Trend in the tra and basa production by pond and by cage



Source: An Giang Department of Agriculture and Rural Development.

According to the survey carried out in 2002, the farming scale of fish farmers was mostly small. The average productivity per pond is about 42 tons per hectare. The average productivity of a cage is about 70 kg per cubic meter. The average length of a pond is 68.14 m, but that of a cage is 15.38 m, as shown in Table 1.

Normally the farming density of tra fish raised in cage is higher than that of tra raised in pond, so the output amount of tra raised in cage is also larger than tra fish farmed in pond using the same area. The main reason is technological. Because of the high density of tra fish raised in cage, its death rate and production cost are usually higher than that of tra fish cultured in pond.

Table 1: Average length, width and height of cage and pond to raise catfish

Description	Length (m)	Width (m)	Height (m)	Area (m ³)	Total productivity (ton)
Cage	15.38	6.88	4.35	460.29	32.22
Pond	68.14	45.29	3.53	10,895.26	12.96

Source: Own survey – carried out from October to November 2002 in provinces: An Giang, Can Tho and Dong Thap

Before the steep increase in production after 1995, catfish fingerling was caught from the MD. Since 1995, the catfish culture began to require large numbers of fingerling. The success of artificial fertilization allowed the dramatic increase in fingerling production. Fish fingerling was supplied by private and state hatcheries, in which the private hatcheries play the role of key supplier, as state hatcheries do not meet the fish farmers' demand⁶.

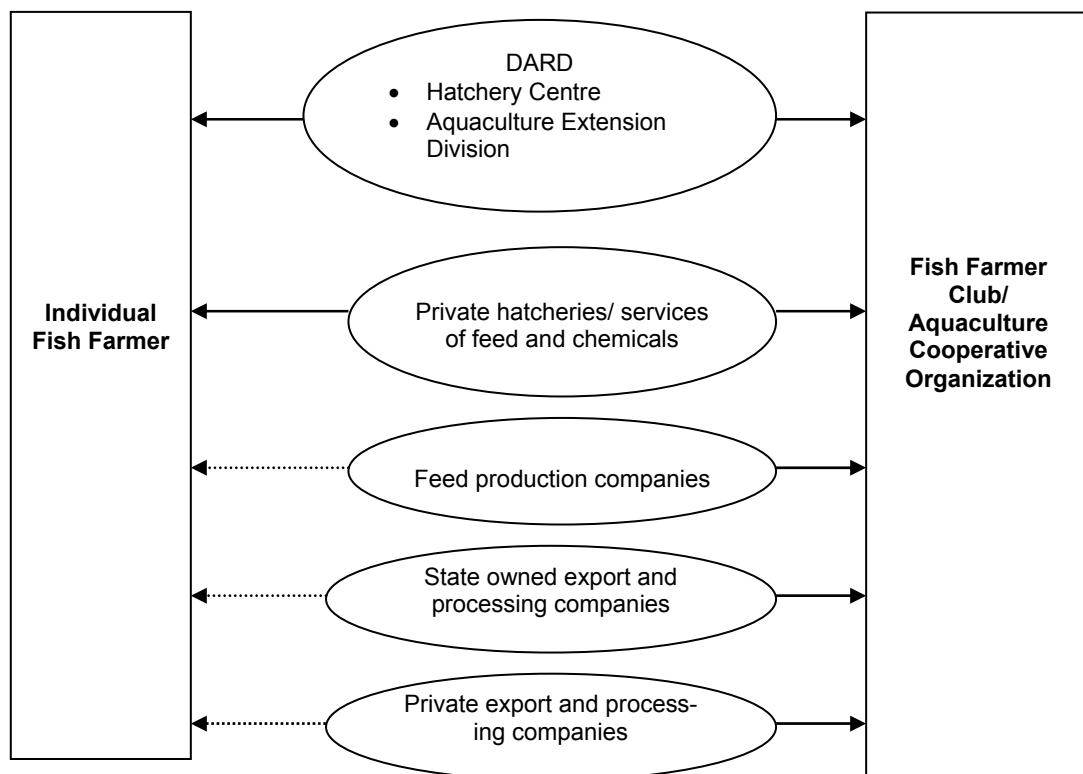
The Department of Agriculture and Rural Development (DARD) has played a major role in aquaculture extension⁷, in which the Fingerling Hatchery Centre and the Aquaculture Extension Division are responsible directly. Larger scale fish farmers can also take aquaculture extension from the companies

⁶ Based on the expert evaluation from the Hatchery Center of An Giang province.

of feed production and the state owned exporting and processing companies (EPCs). In particular the EPCs supply fish farmers who are in their own fish club (e.g., AGIFISH and AFIEX have their own clubs of 40.000 tons and 20.000 tons respectively).

As depicted in Diagram 1, the small scale fish farmers are usually limited in communicating with the aquaculture extension information (see dotted lines). Their main aquaculture extension channel directly comes from the extension system at the Commune level, where the low level of training, poor facilities and transport, and low salaries of extension agents limit their effectiveness. This channel is depicted in Diagram 1 by solid arrow lines. Unlike individual fish farmers, fish farmers under groups/clubs or cooperative farming organizations have more opportunities to communicate with the aquaculture extension system. Their channels with the highly frequent supply of information and advice are from DARD, private hatcheries or services of feed and chemicals, feed production companies, state owned and private companies of processing and export.

Diagram 1 : Aquaculture extension channels for the fish farmer before catfish war



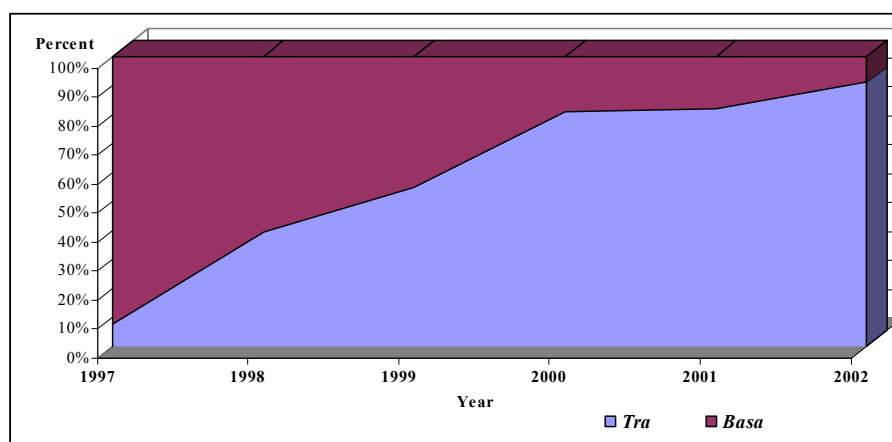
Note:
 —————> Information and advice with high frequency
> Information and advice with low frequency

Unlike the ecological characteristics of the basa fish, only raised in net cages anchored on rivers, the tra fish has been raised both in ponds and in cages. According to Figure 6, the cage amount of tra fish accounted for 20% in 1998, but this rate was improved to 90% in 2002. Consequently, the increase of cages grew after 2000, as did the culture of tra fish, meaning that fish farmers very much paid atten-

⁷ Aquaculture extension: The function of aquaculture extension is to supply technological information, cultivation technology transfer, supporting technology advice, the building capacity (e.g. Training, excursion, workshop) regarding to aquaculture knowledge to fish farmers, and others involment.

tion to farm tra fishes in cages, and to reduce the culture of basa fish in cages, because of many reasons. As can see in Diagram 2, the only advantage of basa is the high selling price.

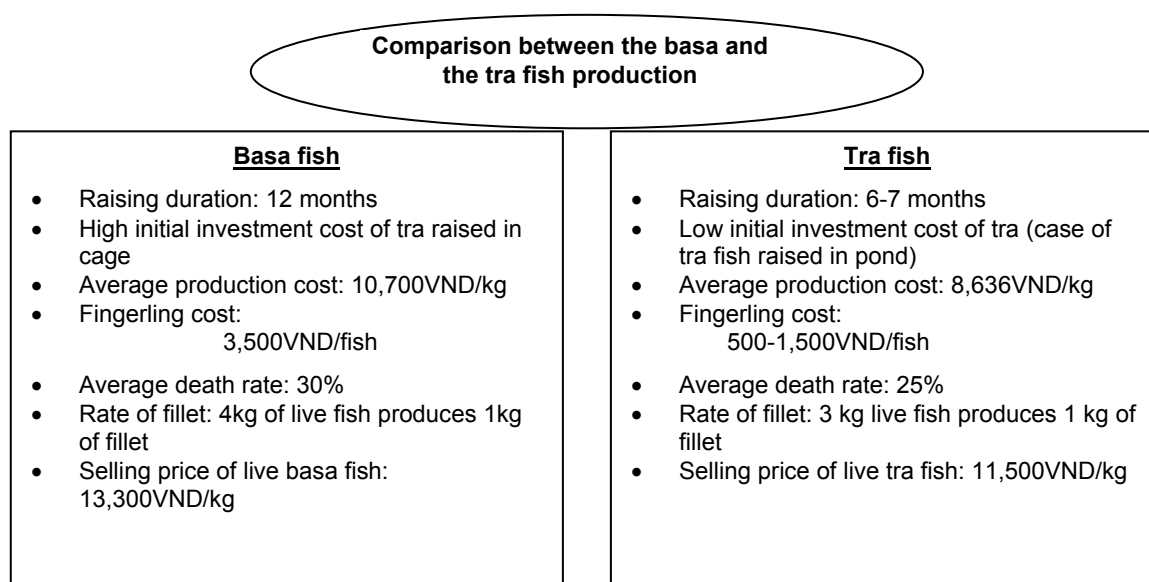
Figure 6 : Structure of cages occupied by tra and basa fish



Source: An Giang Department of Agriculture and Rural Development, 'Market Study of Cultured Pangasius from the Mekong Delta, Vietnam' prepared by Nguyen Phu Son and Tu Van Binh.

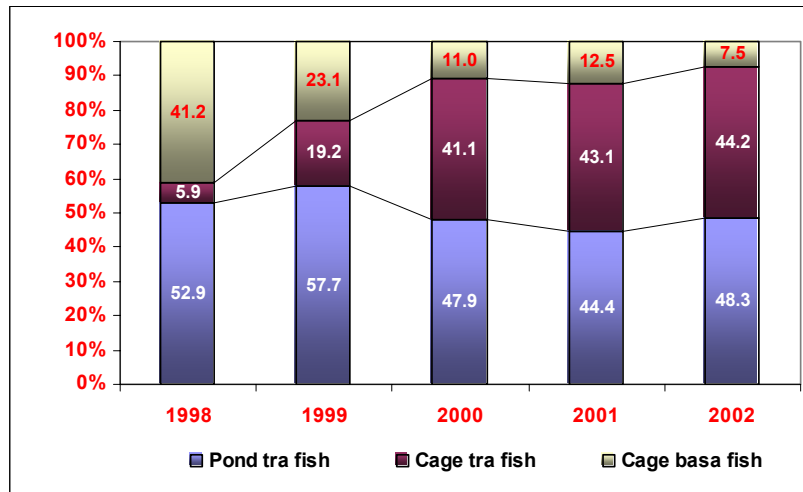
Due to the successful improvement of production technology, compared to the quality of finished tra fish compared to the quality level of the finished basa fish converged, making its production more lucrative given its lower costs.

Diagram 2: Benefit comparison of the basa and the tra fish product



Source: Own survey – carried out from October to November 2002 in provinces: An Giang, Can Tho and Dong Thap.

Because of the shift towards cage tra fish, the yield of tra fish increased considerably. With its share increasing from 7.69% in 1997 to 90.95% in 2002. As show in figure 7, when also considering tra fish raised in pond the share of tra fish in the total yield increased from 58.8% in 1998 to 92.5% in 2002.

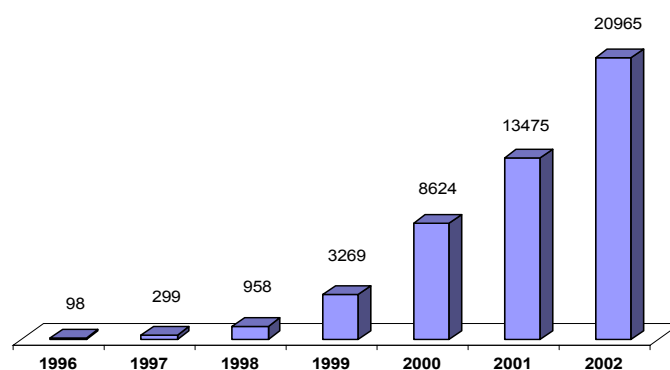
Figure 7: Share of yield of the tra and basa fish product

Source: Angiang Department of Agriculture and Rural Development.

From the foregoing we can conclude that there were substantial changes in the period before the “cat-fish war”. The cages to culture tra fish were expanded while the cages to raise basa fish were reduced, as tra fish gradually became more profitable than basa fish. The large scale fish farmer, or the fish farmer who is involved in a club, can address more channels of the aquaculture extension system. They can obtain quality fingerling fish as well as the necessary loans, being directly and frequently supported and helped by the exporting companies and banks with high frequency.

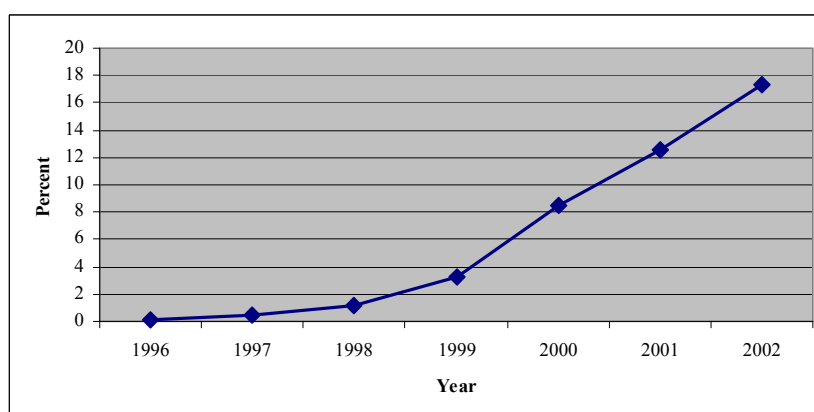
b. Consumption Situation

Based on opportunities of the embargo lifted by the USA in 1995 and the BTA signed, Vietnamese exporters speeded up penetrating the USA market, particularly for frozen catfish fillets with the advantage of low production costs (e.g. labour) and cheap fingerling. Maturity of the Vietnamese tra and basa producing industry, as is illustrated in Figure 8, resulted in an increase in the export volume of frozen catfish fillets to the USA market with an annual average growth rate of 157% from 1996 to 2002. According to the USA Harmonized Tariff Schedule, imported frozen catfish fillets from countries that have normal trade relations with the USA enjoy a zero-percent tariff. However, the fish fillets imported from countries without normal trade relations are subject to a tariff of 4.4 cent per kilogram. Thus, up to the effective date of the BTA between the VN and the USA, an import duty of 4.4 cent/kg was levied on tra and basa fillets. Thereby, with the average export price of 3.13 USD/kg, the tariff was about 1.4 percent on the import value. However, from December 2001 onwards, there was no longer a tariff on the product.

Figure 8 : Export volume of frozen tra and basa fish fillets to the USA (1000 tons)

Source: US International Trade Commission, Data Web.

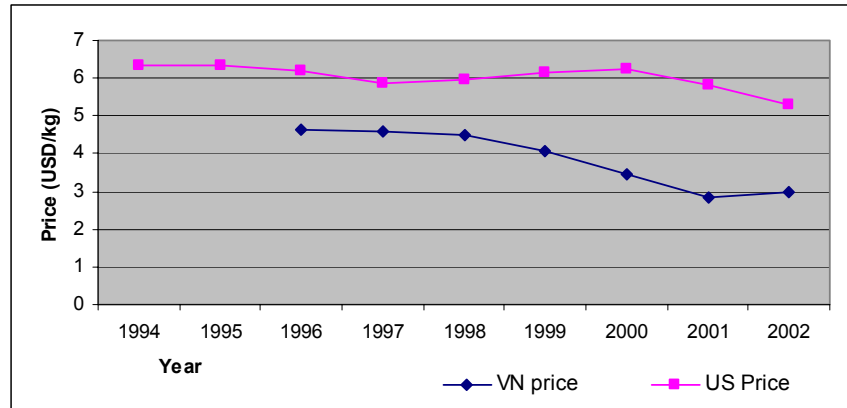
For the first time in history, the Vietnamese tra and basa fish industry strongly shook the USA catfish industry, as illustrated by the growth of the market share of Vietnam's import to the USA up to 17.34% (converted to live weight) in 2002, from 0.14% in 1996 as shown in Figure 9.

Figure 9 : Market share of Vietnam's import by the USA (converted to live weight)

Source: USDA FAS, NMFS

In spite of the USA raising a trade barrier against Vietnam, this could not help the USA to reach a better market situation. On the contrary, the frozen USA catfish fillet market worsened, due to the price strategy of the Vietnamese exporters and processors who reduced prices consecutively from 4.65 USD/kg in 1996 to 2.99 USD/kg⁸ in 2002. The Vietnamese price was at the lowest level in 2001, which had its impact on the price of the USA frozen catfish fillet, going down as illustrated by Figure 10 and reaching its lowest level in 2002.

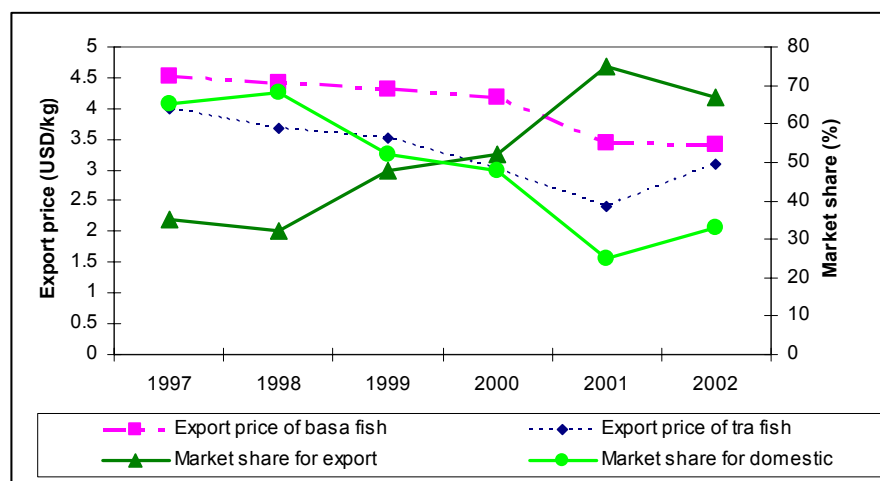
⁸ Exchange rate 2002: 1USD = 15,441 VND.

Figure 10: Price of frozen catfish fillets between Vietnam and the USA

Source: US International Trade Commission, Data Web., and Department of Agricultural Economics – 2004 catfish database.

In reaction to the deteriorated market situation, the USA erected another trade barrier against Vietnam by imposing an anti-dumping duty. This caused a fall in the export share of Vietnamese basa and tra fish in 2002 (see Figure 11) from 75% to 67%. The market share for domestic demand expanded from 25% in 2001 to 33% in 2002, due to the “Catfish War” between Vietnam and the USA. It clearly seems that some exporters and producers have diversified and targeted the domestic market through higher added value products. Figure 11a shows higher added-valued products developed.

With the continuous improvement of the tra fish culture technology, the quality of tra fish produced in the MD meets the USA consumer’s preference. This phenomenon was accompanied by promotion strategies of Vietnamese exporters. The export price margin between tra and basa fillet products converges, as was the case in 2002.

Figure 11 : Market share for export and domestic demand in Vietnam, and export price of the Pangasius

Source: Aquaculture Ministry and Provincial Aquaculture Departments

Figure 11a : Representative value-added products of pangasiusBreaded Basa filletBasa fish pasteClay pot Basa fishMix seafood skewerBasa in sour soupBasa skewer

In sum, the pangasius market in the MD is closely linked with the international market. The Government Decision 80 enables the contract system to tackle the anti-dumping situation more effectively. This Decision allows farmers to sell their product in accordance with signed contracts, thereby minimizing the problem of fluctuating prices. Sellers will be guaranteed a price which would stabilize their livelihoods, and buyers will benefit by having reliable suppliers and the quantity to fill their contracts. However, many problems remain. The export producing companies like to purchase large volumes, while at the same time most fish producers are small scale farmers. In addition, violations of contracts between farmers and buyers have become complicated and volatile. There are cases where farmers do not sell to buyers when the market price increases, as they prefer to sell to other buyers who would pay more. Other examples are buyers that do not purchase products in the quantity originally agreed upon, but buy from other sellers at a lower price. Anyhow the contract agreement is a good instrument to establish a stable market in the short term. In particular the fish farmers can maintain their occupation based on a reasonable gain.

4.2 After the catfish war

a. Production situation

Unlike the period before the catfish war, the fish farmers have expanded their culture area with large scale farming and they have reformed their way of farming. Initially, An Giang (AG) is the only province in the MD which has a sectoral organization, i.e. the An Giang Fishery Association (AFA), established in 2003. This is a significant improvement in the production strategy of the fish farming community, as a good lesson and experience after the losses incurred by the catfish war. In fact, this organization plays a key role in bridging the gap between the export processing company and the farmer, bringing them closer to each other, satisfying each other's need for a good price and quality, and also balancing supply and demand.

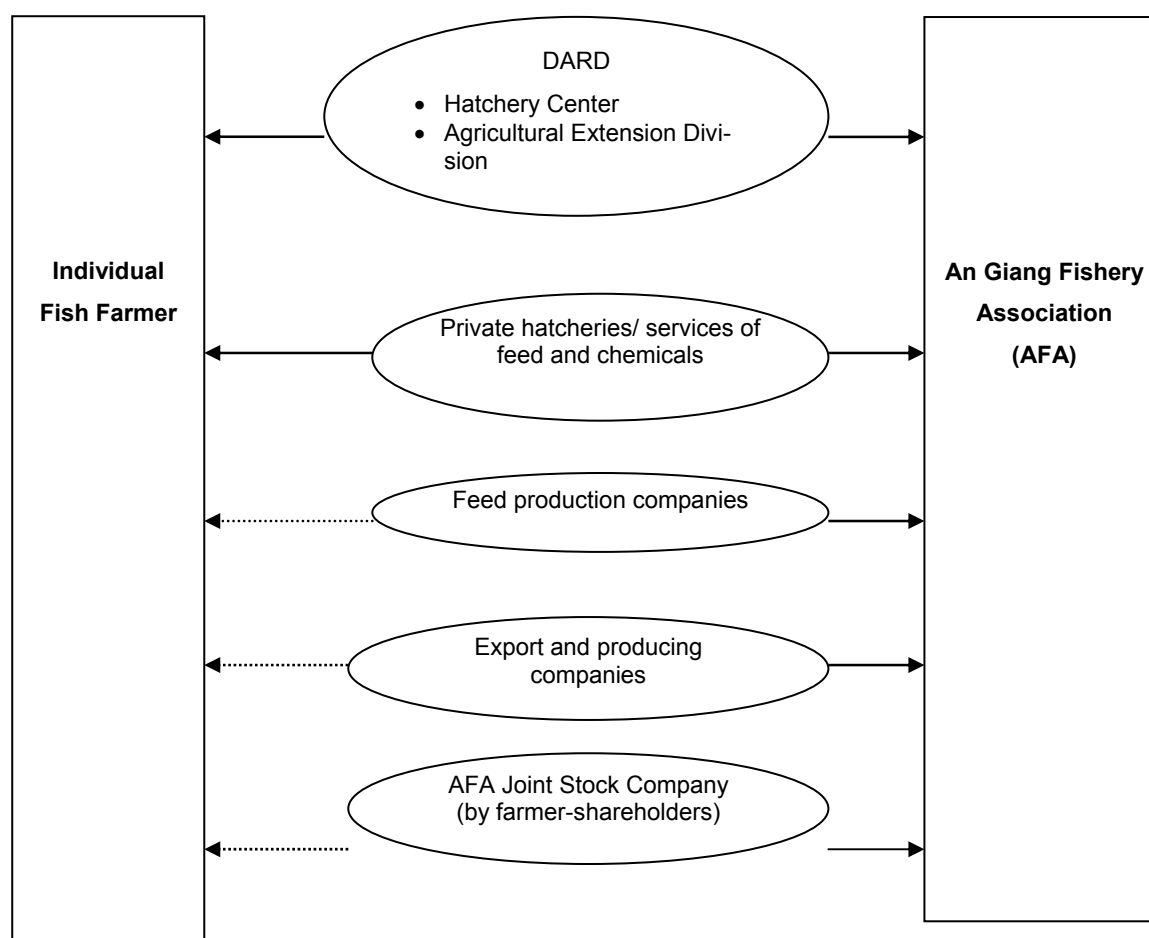
Another important event for the Vietnamese tra and basa industry, was the establishment in 2004 of a farmer's company, named AFA Joint Stock Company of Importing and Exporting Aqua-products (AFASCO), which shows that fish farmers in the MD want to substantiate their ability in the free market. Many more farmers have access to tra and basa production, for the following reasons:

- The development potential of the pangasius culture is very high as a result of natural conditions.
- The Government is very much interested in developing aquaculture as part of the economic transition policy.
- Demand all over the world is shifting from livestock meat towards fish.
- The bird flue outbreak further reinforced the demand for fish products.
- The annual flood coming to areas like AG is controlled as well. The dike of the pond where the fish is raised can be protected and will not break.
- The trade dispute between Vietnam and the USA, known as the catfish war, is an excellent opportunity to develop other export destinations in the world e. g., the European and Asian markets.

However, fish farmers are still facing disadvantages of fingerling demand, because the state hatcheries can only supply about 15%⁹ of the demand of fish fingerling in AG. Most fingerlings are produced by commercial hatcheries but there are serious concerns about the viability, the quality and the hygiene status of their stock, which is translated into a lower quality of the finished product.

According to Diagram 3, AFA fish farmers have usually received aquaculture extension activities with higher frequency than individual fish farmers. The extra new aquaculture extension channel through AFASCO in Diagram 3, has played an important role to assist fish farmers to get information about technology as well as information about the domestic and the international markets. On the other hand, AFA is also a legal organization and eligible to directly sign contracts for farms meeting the strict requirements of export processing companies. AFA can be seen as the centre to directly transfer to the farming community technology in farming, as well as domestic and international market information, which is mainly AFASCO's responsibility. After one year of establishment, AFA was evaluated as an effective model, from which some other provinces learned and made them apply this model. Until now the provinces, such as Can Thö and Dong Thap, involved in producing the tra and basa fish have developed a fishery association for themselves.

⁹ Expert evaluation on the center of hatchery under An Giang DARD on June 2006.

Diagram 3 : Aquaculture extension channel for fish farmers after the catfish war

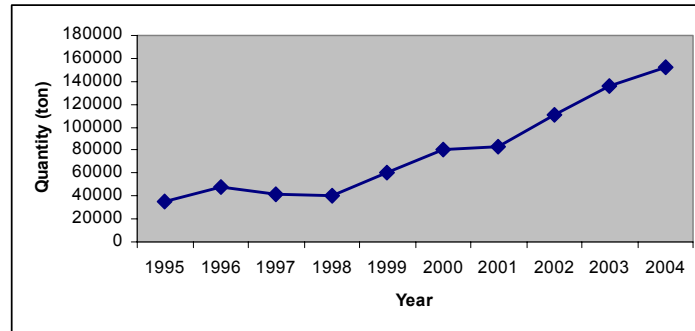
Note:

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→ Information and advice with low frequency

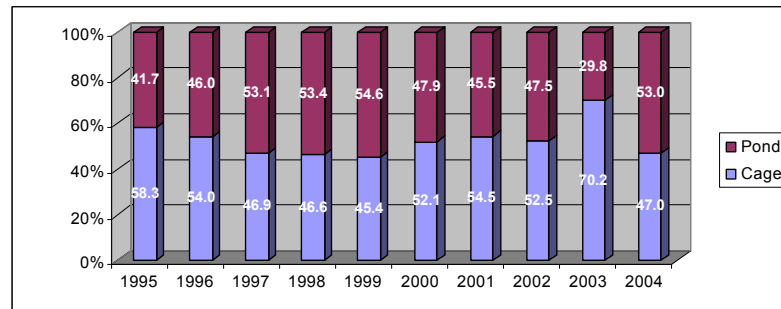
In general, the trend of pangasius yield has been increasing for 10 years from 1995 to 2004 as shown in Figure 12. The quantities of tra fish by pond normally account for a high portion in 2004 (53%) compared to 2003 (29,8%) as depicted in Figure 13. In particular, according to the latest statistics of AG, the total yield of raw fish material of tra is 143,071 tons¹⁰ in 2005, in which the tra fish raised in ponds occupies about 77.5%, and the tra fish cultured in cages accounts for 22.5%. Some of the reasons why fish farmers concentrate on producing tra fish in a pond rather than in a cage are (see Diagram 4):

- The initial investment cost of a cage is higher than that of a pond
- The death rate for tra fish raised in a cage is higher than in a pond
- The production cost of cage tra is higher than of pond tra
- The price of pond tra is higher than of cage tra
- The fish farmer can control the water source more easily in a pond than in a cage

¹⁰ Department of Agriculture and Rural Development, and Department of Trade of An Giang province.

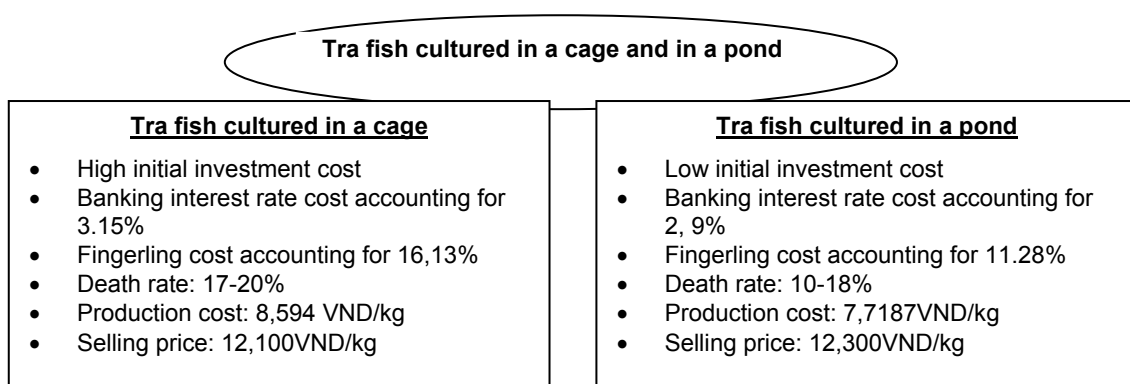
Figure 12 : Trend of raw material pangasius yield in An Giang province

Source: An Giang Statistic Department.

Figure 13 : Yield structure of Pangasius cultured in a cage and in a pond

Source: An Giang Statistic Department.

Based on using modern technologies, and applying progressive models in farming, together with strict environmental control implemented by provincial authorities, fish farmers have currently reduced the death rate in culture. Thus, compared with Diagram 2, the death rate of the tra fish cultured in pond is from 10%-18%, and of the basa fish cultured in cage as 17%-20% (see Diagram 4). This is a good opportunity for fish farmers in the MD to restrain the production cost, while the market price of some input materials is increasing, such as e.g., the fish feed price¹¹.

Diagram 4 : Efficiency comparison of tra fish cultured in a cage versus cultured in a pond

Source: Own survey – carried out in An Giang province on June 2005.

The daily price news of An Giang DARD from January 2004-August 2005.

¹¹ The seminar of "Market Study of Cultured Pangasius from the Mekong Delta" was held in June, 2005 at Can Tho University.

b. Consumption situation

Vietnam's pangasius industry has been going through a period of radical change. Farmers and processors have been trying to reduce their dependence on the USA market, to further diversify their product range, and to develop better marketing concepts. For instance, AGIFISH, one of the leading pangasius processors has been expanding its domestic and export market by offering more than 100 products from basa and tra, and AFIEX more than 40 products. Although the value of frozen products (added-value products) initially remains regional, the demand for such products is now increasing at supermarkets and restaurants. During the first seven months of 2003 AGIFISH and AFIEX together achieved a revenue of about 1.5 million USA dollars on the national market. AGIFISH with tra and basa products occupying over 90 percent, quickly recovered both quantity and value of export after the trade dispute. The export value in 2002 and in 2003 was respectively 30 and 26 million dollars, but the export value in 2004 climbed to 46 million dollars, with a quantity of 15000 tons, see Table 3

Table 3 : The export situation of AGIFISH

Description	2000	2001	2002	2003	2004
Export volume (tons)	5,200	7,200	10,400	10,600	15,000
Export value (million USD)	24	26	30	26	46

Source: Newspaper No.15-2005 VASEP

The most difficult period for the Vietnamese pangasius industry after the anti-dumping decision of the USA was towards the end of 2003 and in the early months of 2004. Then high stocks and low prices in the MD created a sense of uncertainty and despondency within the sector. The subsequent recovery of the industry needed a reorganization by exporters, the search for new customers and the identification of new markets.

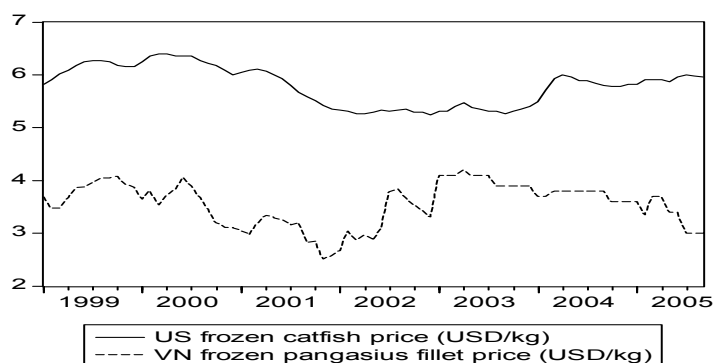
Meanwhile, the demand of existing market channels recovered during the second quarter of 2004. The USA pangasius importers continued to order, but they required strict product traceability. Most exporters accepted to pay the imposed anti-dumping duties, in order to speed up sales to the USA market and at the same time developing new international markets, particularly EU markets, but also some markets in Asia and Oceania.

The catfish war brings a very bad consequence for Vietnamese exporters. During 2003, the USA imports of frozen pangasius fillets from Vietnam dropped almost by 50%. This affected fragile local economies and livelihoods of catfish farmers and other stakeholders. There has been an increase in rural unemployment, due to the fact that many fish farmers could not sell their products, making them suffer financial losses, which in turn lead to bankruptcy, as pangasius farming is their main occupation.

Influenced by the US anti-dumping investigation, Vietnamese exporters adjusted their price strategy by boosting the export price of pangasius fillet products in the USA market, although there wasn't a formal decision on the dumping case yet. The increase in the export price was clearly the result of a common psychology of Vietnamese exporters facing the lawsuit petition of American fish farmers. Changes in boosting the export price of the pangasius fillets are presented from the last months of

2002 to the first six months of 2003 (see Figure 14). However, after that one year prices went down slowly again, while the price of frozen catfish fillets of the USA has an upward trend from 2003 to the end of 2005.

Figure 14 : Frozen catfish fillet price in the USA and in VN

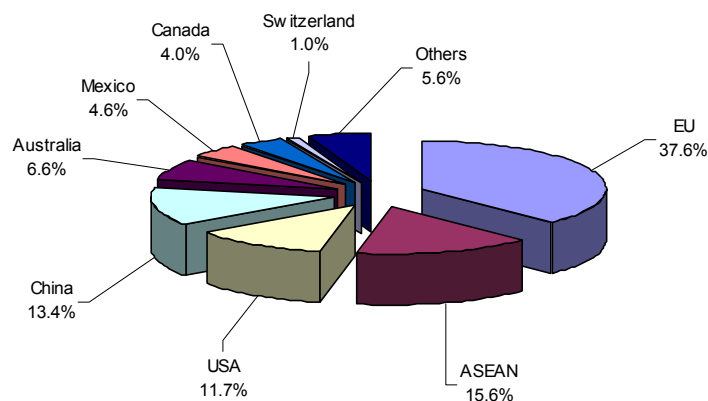


Source: National Agricultural Statistics Service, USDA, VASEP News, <http://www.vietlinh.com.vn>

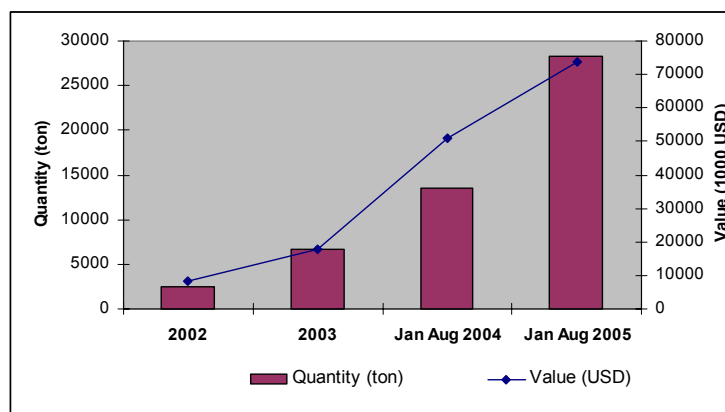
Recently, the Pangasius product is sold to more than forty countries, including new markets such as China, Hongkong, Singapore, Canada, Mexico as well as the EU and the East European countries. The EU is becoming an “emerging market” for pangasius products, accounting for 37.6%, equivalent to 28,219 tons from Vietnam for the first eight months of 2005. The next important market is ASEAN with 15.6% equivalent to 22,435 tons, followed by the USA market with 11.7% equivalent to 21,229 tons (see Figure 15). This means that Vietnamese exporters very quickly adapted to the challenge and entered these new markets, not depending on the USA market alone. With regard to the EU, the total pangasius export during the first eight months of 2004 increased by 50%, and during the first eight months of 2005 by 44%, compared to the same period of 2004 as shown in Figure 16. Reasons that induce a higher growth rate in 2004 and in 2005 are:

- The quality of Vietnamese pangasius has improved to meet the requirements of international customers, with respect to hygiene and food safety, and this at a reasonable price.
- The bird flue outbreak in Asia has driven Europeans to opt for fish rather than for poultry meat.

Figure 15 : Export markets of the Vietnamese Pangasius for the first eight months of 2005



Source: VASEP News No.40 – 2005

Figure 16 : EU imports of Pangasius from Vietnam , Jan.-Aug. 2002 – 2005

Source: Vietnamese trade statistics, VASEP news No.40-2005

5. Policy Intensifying Sustainable Production Development

5.1 Master plan

After the catfish war between Vietnam and the USA, the Vietnamese provincial authorities have paid much attention to a master plan for the area producing raw material tra and basa fish. The master plan also intends to build up areas that produce tra and basa fish according to international quality standards. The main purpose is to establish a stable market supply and price, together with deterring threats of increases in environmental pollution, by which fish farmers can be shielded from negative changes in the world market. The master plan can open potentials to ensure a stable fish fingerling supply through fish hatcheries, avoiding the negative price fluctuations due to occasional supply gluts. The environment can be controlled as well.

5.2 Strict hygiene and food safety policy

AG created a name brand of “Freshwater Aquatic Product” from the MD meeting the international standards of the SQF 1000¹² (Safe Quality Food). Producing and exporting companies must apply the programme of SQF 2000 to link fish producers with the SQF 1000. In both cases, antibiotic residues, i.e. Choloramphenicol, Malachite Green are not allowed in fish products.

VASEP established the VASEP Freshwater Fish Committee, which supervises activities of raising and producing tra and basa for export in order to help exporters to keep up with the fastidious demands of the world market.

¹² SQF stands for Safe Quality Food. The SQF Programme is a fully integrated food safety and quality management protocol designed specifically for the food industry with application at all links in the food supply chain.

- The SQF 1000 Code is a HACCP (see footnote 13) based supplier assurance code designed specifically for primary producers.

- The SQF 2000 Code is a HACCP supplier assurance code which has wide appeal across the food manufacturing and distribution sectors.

Control on the use of antibiotics in aquaculture has also increased. Numerous drugs that were still permitted after the trade dispute have in the meantime been prohibited. Adherence to this ban is monitored by the National Fisheries Inspection and the Quality Assurance Centre in the provinces of the MD.

5.3 Market policy

AGIFISH and AFIEEX are state-owned enterprises that were privatized (converted to joint stock companies) from 2005 onwards. They have contractual arrangements with groups of fish farmers, known as clubs or cooperatives, AFA, whereby the company supplies inputs (fingerlings, feed, etc.) and technical support to the fish farmers, and the farmers supply finished fish to the company under agreed pricing and quality grading protocols. The vertically integrated system incorporates strict quality assurance procedures, guided by HACCP¹³ and ISO¹⁴ protocols, and a product that does not satisfy the export standards, goes into the domestic market.

Initially, they paid attention to a market information system as well. DARD is actively involved in distributing market information through a monthly newsletter and a Website. On average, the AG province has had an annual expenditure of 100 million VND for the maintenance of an aquatic information system.

The provincial government is under pressure from fish farmers to establish a floor price for catfish, with the intention to avoid large price declines and to allow producers to maintain reasonable profit margins. This would mean that processing plants or companies will be prohibited to buy fish from producers at a price below the floor price.

The Vietnamese Ministry of Fisheries has set up an executive board, not only to supervise the culture and processing of tra and basa fish, but also to improve product quality and to promote catfish trademarks.

Moreover, encountering an increase in technical barriers and stern demands of the world market, AGIFISH officially set up the “Agifish bio – Pangasius Union” which is supported and facilitated by VASEP under the Ministry of Fishery. Objectives of this organization are (1) to guide and to assist the fish producers applying the technical production process according to QSF 1000 and other standards such as EurepGAP¹⁵ and BAP¹⁶; (2) to help the fish farmers to work with advanced technology to pre-

¹³ Hazard Analysis and Critical Control Point (HACCP) is a widely used and internationally recognized science-based control system which identifies and evaluates hazards that might occur in the food production process and puts into place stringent actions to reduce hazards from occurring in food production. This system, when properly applied, focuses on preventive measures rather than end product testing. By strictly monitoring and controlling each step of the process, including microbial, chemical, and physical contaminants, the industry can ensure that its products are as safe as good science and technology allows.

¹⁴ ISO (International Standard Organization) is a global network that identifies what International Standards are required by business, government and society, develops them in partnership with the sectors that will put them to use, adopts them by transparent procedures based on national input and delivers them to be implemented worldwide

¹⁵ The Eurep GAP standards are mandatory standards for any goods going to the main food chains throughout the EU.

vent epidemic fish diseases; (3) to contribute positively to environmental protection and to guarantee social benefits for the fish farming community.

5.4 The “Four Houses” Policy

The AG Government has adopted the “four houses” policy as a central feature of its overall development plans. This concept is based on developing synergetic linkages between farmers, business enterprises, scientists and the government. The purpose is to integrate these four elements in a way, in which they will increase the quantity, quality, productivity and profitability of aquaculture production. As a result, AFA is a representative organization of fish farmers trying to meet contract farming agreement with export and processing enterprises. These enterprises are not interested in buying directly from small scale farmers with a small amount produced by each farmer. This policy has contributed to a win-win situation between the fish farmers and the export and processing companies.

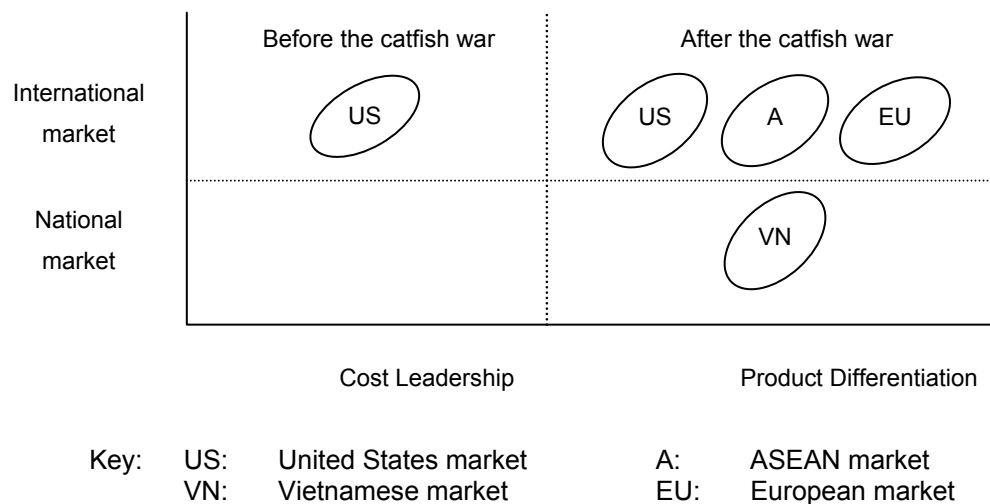
AFA is a means for assisting fish farmers to become stronger in production, services and marketing, and to work together more effectively. Furthermore, AFA provides fish farmers with technical advice, market information twice a month, credit through a revolving fund and veterinary supplies.

However, in general, contract farming agreements have not been successful, despite the government’s policy in favour of such arrangements. Farmers are confused and nervous about forward contracting and both parties tend to break up the contract if prices move in the wrong direction. It is worth noting that forward contracting for internationally traded commodities is a very complex area, and even in highly developed economies, most farmers choose to sell at spot prices.

6. Discussion

During the period before the catfish war (1995-2002), the Vietnamese export and the processing companies have produced and distributed catfish fillets under a strategy of cost leadership through experience, the advantage of natural potential and intangible resources, such as skills and the experience of people. This strategy was successfully applied in the USA as the main export market of Vietnam (see Diagram 5). However, after the catfish war, Vietnamese exporters have seen many competitors. So they have developed a strategy of production differentiation through value-added products based on quality, safety, design, reliability, ease of preparing and taste. In parallel, the advertising levels of these companies also tend to be high for using this strategy. The strategy in this case is used particularly in the international market as the USA, ASEAN and Europe, and in Vietnam.

¹⁶ Best Aquaculture Practices (BAP) Certification schemes allow producers, processors, buyers and importers to respond to consumer pressure to ensure that their farmed seafood comes from environmentally and socially sustainable methods of production, and that processes that maximize food safety are being used. Third party schemes guarantee that strict standards are met and maintained using independent verification.

Diagram 5 : Strategic groups of the VN producing industry

The entering of the USA market of Vietnamese pangasius fillets, has brought about evident changes, not only in the technology, but also in the consumption strategy. The fish farmers in the MD have a increased sense of selecting the quality fish fingerling, taking also into account the origin and the prestige of the fingerling hatchery. Particularly the fish fingerling identified is in good health, without infected antibiotics certificated by the legal test organization of quality and safety.

The working of the free market eliminates the small scale fish farmers, and increases the role of the large scale fish farmers which have the financial means and the borrowing capacity.

The large scale fish farmers pay very much attention to buying the chemicals and drugs for the fish culture under the government framework. This, together with the selected fish feed must sufficiently guaranty the quality and safety of the finished product.

There is a positive change in the selling behaviour of the fish farmers. The large scale fish farmers, the farmers in AFA or in cooperatives or clubs pay attention to contract farming with the EPCs, based on a mutual benefit. That also the EPCs benefit is due to the fact that they can actively control the procurement source of raw fish materials.

Also production has significantly changed before and after the catfish war, as the fish fingerling source after the catfish war is very rich. As a result, the fish farmers can actively look for low priced, good quality fingerling.

After the catfish war, the fish farmers have more opportunity to communicate with the extension channel as well, and to get market information supplied by AFA, AFASCO and DARD.

Other changes by comparing the situation before and after the catfish war are depicted in Diagram 6 below, which also summarizes the previously mentioned changes.

Diagram 6 : Comparison before and after the catfish war

	Before the catfish war	After the catfish war
Production		
* <i>Fingerling source</i>	- From natural source and artificial fertilization	- Mainly artificial fertilization
* <i>Production cost</i>	- Low cost because of mainly using self made feed	- High cost because of the increase in industrial feed price
* <i>Type of culture</i>	- Decrease in basa culture, but increase in tra culture by cage	- Decrease in tra culture by cage, but increase in tra culture by pond
* <i>Aquaculture extension system</i>	- The main channels of aquaculture extension are DARD for individual farmers	- The main channels of aquaculture extension are DARD, AFA, AFASCO, Enterprises
* <i>Production scale</i>	- Fish producers with small scale farms	- Fish producer with large scale farms
Market and marketing		
* <i>Market strategy</i>	- US is a key market	- Market diversification such as EU, US, ASEAN
	- Penetration strategy with cost leadership and with key frozen catfish fillets	- Penetration strategy with product differentiation such as fillets and added-value products, and the diversification of market
	- Negative linkage between the fish farmer and the company	- Positive linkage between the fish farmer and the company
* <i>Organization</i>	- Individual producers, fish farming clubs or groups with the limitation of market organization	- AFA founded, together with market information system development
	- Fish farmers with poor market information	- Fish farmers have good opportunity to get market information from AFA, AFASCO, DARD,...
* <i>Export tax</i>	- Free export tax (tariffs dropped to zero)	- Anti-dumping tax
* <i>Barriers</i>	- Encountering trade barriers (e.g. trade dispute)	- Encountering technology barriers and trade barriers
Sustainable Development Policy		
	- State Owned Enterprises	- Privatization of state companies
	- Informal contract between the fish producer and producing companies (traders and farmers based on verbal agreement)	- Formal contract based on floor price
	- Just idea development of four houses linkage model	- Strong implementation of linkage policy of four houses
	- Not clear master plan for tra and basa production	- Master plan based on the environmental protection
	- VASEP as a young organization with lack of experience	- VASEP is more experienced and knowledgeable

7. Conclusion

There are two approaches of the pangasius industry in the MD. The first approach is the “*production oriented approach*”. This was the dominant approach in the period before the catfish war. The policy focused on the production inputs and on fish farmers. It tried to bring farmers in contact with production technology, and with targets that increased the production and decreased prices to attract consumers. Besides this, technical information was provided, which required substantial financial support

from the public sector and from donors. In the period after the catfish war, there was a shift towards a “*market-oriented approach*”. The policy focused on outputs and on the needs of the market, and aimed to strengthen commercial linkages between farmers and markets. It also targeted market failures and marketing inefficiencies. Particularly the production was based on market demand and always calling for new skills, while the profitability was enhanced by increasing production and prices.

Although currently various aquaculture extension channels are available to the fish farmers, the extension system of grassroots is still limited, due to the lack of extension staff force and of capacity. The market information network, which was set up, has not met the demand of the fish farmers yet, because most information relates to the price on live fish markets, without the market forecasts for the international and domestic market. Also the quality of the information is limited. The trade approach between the EPCs and the fish farmer is only based on the traditional way of doing business, while the traceability system has not been applied.

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