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Country Case Study
Trade in Fisheries and Human Development
Vietnam

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Preface

The UNDP Asia Pacific Regional Initiative on Trade, Economic Governance and Human Development (Asia Trade Initiative) was conceived in 2000 in the aftermath of the failure of the WTO Seattle Conference to launch a new round of trade negotiations. The fundamental motivation is that multilateral rules should craft globalization, so that it provides real benefits for poor people, rather than exclude them. This warrants a comprehensive assessment, analysis and response to the far-reaching impacts of trade agreements on the ability of poorer countries to shape national human development outcomes. To this end, the aim of the Asia Trade Initiative is to advance human development interests in the region through greater understanding on its interface with trade issues by facilitating exchange of lessons among governments and civil society and strengthening their capacities to defend and articulate trade negotiating positions from a pro-poor perspective.

The first phase of the work program, launched in late 2002, is devoted to preparing Technical Support Documents (TSDs) in around ten trade themes, consisting of a Regional Synthesis and three to five representative Country Cases per subject. These topics were identified as those that were priorities for negotiations at the WTO, and where any new multilateral commitments and disciplines had the potential to affect vast sections of the Asian population.

The distinctive aspects of these initial intellectual outputs led by the Asia Trade Initiative are that they are prepared in a highly consultative manner with reliance on specific grassroots evidence, and a conscientious effort is made to examine the impact of possible outcomes of trade negotiations on the broad human development objectives of empowerment, equity, productivity, sustainability to ultimately expand people's choices, and their capabilities to lead the kind of life they have reason to choose and value.

Fisheries is one of our ten priority topics in the first phase because of its importance to Asian economies in a number of ways. It offers employment to over 25 million people, and is a major export item. It is also a source of nutrition, and a way of life to many poor people in Asia. The countries selected for the TSD on Fisheries are Vietnam, Thailand, and India. While a regional synthesis will distill and summarize major points on trade in fisheries and human development from these country studies, what follows is a Country Case Study on Fisheries in Vietnam. A summary of key observations from a human development perspective are highlighted as follows:

1. **Fishing contributes to empowerment by being a major source of food, employment, incomes, and a way of life**. While 80% of the coastal communities rely in some way on fisheries for income, their livelihoods are vulnerable to weather, typhoons, and migration of fish species, making the fishers poorest of the poor. There are over 3 million professional fishers in the country. Those relying on inland capture fisheries are especially vulnerable, and because of declining catches, 30-40% of fishing communes cannot meet their basic needs during off-season. Source of income from fishing is thus unstable, and has to be complemented by other rural vocations. Fifty percent of protein intake by Vietnamese comes from aquatic products, and fisheries is also the third largest foreign exchange earning sector of the country.

2. **Pattern of ownership of vessels has equity implications**. There is no distant water fleet in Vietnam, and most vessels lack communication, buoy and navigational security facilities; most are powered with engines of less than 90 HP, with 85% of fishing being near-shore. They are thus small scale fishers who use simple gears for single day or night operations, usually work as share-owners in nearby waters, and rely on borrowed financing. Small scale fishing contributes to an equitable distribution of resources while being a source of food and casual employment. Most do not own their own boats and instead work as crew. Many poor fishers also do not have access to

agricultural land, credit, and capital equipment, and the open seas offer an opportunity to the marginalized.

3. **Productive fish exporters are successfully competing in world markets**. Vietnam's export of aquatic products has exceeded 2 billion US dollars in 2002, up by over 40% from 2000. Export of shrimps is growing the fastest, and the linking of aqua-culture to export markets has encouraged diversification of exportable species, and a shift from generalized fishing to targeting of key species (like tiger shrimps, lobsters, basa and tra fish). While farmers are responding to global demands, they still lack local capacities to deal with food safety and other process-related impediments. Government policy has been to promote off-shore fisheries with a subsidy policy to build up distant water boats, but this has not been effective. No foreign fishing boats operate in Vietnamese waters, and the government has not signed bilateral or multilateral agreements, except with Korea and Japan on transfer of fishing technology. Aquaculture is developing fast as an export-oriented sector, currently accounting for over 40% of national fisheries production.

4. **Global trade barriers and practices constrain development opportunities**. Worldwide average tariff on fish products is around 40%, significantly higher than the average of 6% for manufactured products. However, Vietnam has faced other forms of trade actions against its exports, which is illustrative of serious problems in world markets. Take its case of catfish exports to the US. Although Vietnamese exports comprise of less than 2% of US market, local producers began their objection by arguing that Vietnamese catfish were not catfish. Although a dubious claim, Vietnamese exporters complied with this labeling barrier by calling their exports basa and tra. This did not affect sales. It was then pointed out that these were reared in unhygienic conditions, which was later refuted. Finally, US catfish producers filed an antidumping complaint against frozen fish fillets from Vietnam, seeking a dumping margin of 191 percent. In considering the petition, the US government went on to assess Vietnam to be a non market economy, with adverse implications for the final decision. On the other hand, Vietnamese exporters maintain that the prices of their fish are competitive because of geographic attributes of the Mekong delta, low labor costs, and accumulated traditional knowledge, and that there are no state subsidies involved. After catfish, there have been calls by US legislators to restrain exports of Vietnamese shrimps into the US. Overall, the case demonstrates the need for more stringent multilateral rules and special and differential treatment in the form of meaningful thresholds to protect small developing country exporters and new entrants to the market from trade harassment.

5. **Highly strict sanitary concerns act as a non-tariff barrier**. In addition to the legal initiatives, sanitary issues have also acted as non-tariff barriers. EU, for example, has adopted a policy of "zero tolerance" to fish products containing residual antibiotics chloramphenicol (CAP). The standard set has been so strict that this has led to a radical plummeting of shrimp exports to the EU from Asian exporters like Thailand and Vietnam, affecting livelihoods of thousands of rural exporters. Advances in the technology of seafood analyses have been made to the point that pesticide and pharmaceutical residues can often be detected at the parts per billion (ppb), and in some cases, at the parts per trillion (ppt) levels. When zero tolerances are established based on the ability of a test to detect parts per million, the increase in sensitivity to ppb or ppt can turn a "safe" product to an "unsafe" one. Absence of strict food safety guidelines at home means that standards of the richest importing markets EU, US and Japan are applied to imports from poorer exporters.

6. **WTO could offer some relief to problems of this kind**. Vietnam is not yet a WTO member, but these problems could have been addressed if Vietnam were to join the WTO without discriminatory provisions in its terms of accession. The non–market economy (NME) criteria used by the US is, for example, out of line with WTO provisions, together with the dumping and injury findings, as well as the lack of scientific basis for the classification of catfish (basa and tra). These could have

been challenged under the WTO dispute settlement mechanism. Similarly, the WTO Agreement on Subsidies and Countervailing Measures can allow Vietnam to use subsidies to promote economic development goals, as its per capita GNP is less than USD 1,000 (Annex VII of this Agreement). The WTO could also be potentially used in the SPS (sanitary and phyto-sanitary) mediations. Without a transparent process, it may be possible for the major markets to prolong approval processes unnecessarily and to delay the presentation of scientific evidence. Methods to treat violations against SPS could be negotiated in order to prevent unilateral handling of fish products such as that by EU. It is worth noting that the fish sector is not covered by the WTO Agreement on Agriculture although it does not have the characteristics of an industrial sector either. In the Uruguay Round, some developed countries attempted to exchange access to their markets for fish products for access for their fishing fleets to the territorial waters of developing countries. This was not accepted and there was little tariff liberalization. The unique characteristics of fisheries has led to proposals to deal with the fish sector in a separate agreement, to deal with subsidies, and environmental protection in particular.

7. **Sustainability of fish stock and prevention of degradation of marine resources is a major environmental concern**. About two thirds of commercially valuable fish species spend the first stages of their life in coastal waters. With 90% of small fishers relying on coastal resources, pressure on coastal fishing grounds has increased. New technologies such as trawlers have also had serious impacts, as have the use of explosives and chemicals such as potassium and cyanide. While artisanal fishing is generally more sustainable, produce less waste, and is less damaging to the environment, use of explosives, fine mesh nets, high intensity lights and other destructive practices will need to be curbed. Similarly undesirable is problems of pollution from vessels. The solution could be to encourage off-shore fishing, but small fishers cannot afford sophisticated vessels. This dilemma ought to be addressed by the state through long term credit programs, appropriate fishing technology, and education about environment protection. The cost of compliance with environmental regulations will increasingly need to be contrasted with the potential impact of such regulations on developing countries' export competitiveness.

Vietnam needs to do more to honor multilateral environmental agreements such as CITES, the Rome Consensus, and the FAO Code for responsible fisheries. Ecolabeling (like Fish Forever) that certifies fish products produced under sound conservation regimes will increasingly be of importance as consumer awareness grows. While there are risks of this being used as a "green" barrier, countries like Vietnam should aim to benefit by relating environmental standards to issues of food safety.

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FISHERIES TRADE IN VIETNAM

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I. THE FISHERIES SECTOR AND HUMAN DEVELOPMENT

A. Poverty in Vietnam

Approximately 80 percent of the population of Vietnam is poor, and 90 percent of this section lives in rural areas. Poverty has many dimensions. Poor sections of the population lack access to natural resources, especially to cultivable land. They also tend to be excluded from social development initiatives, credit programmes and decision-making processes. They are highly vulnerable to natural disasters, the degradation of natural resources, and health crises. Minor shocks can have devastating long-term effects on their livelihoods.

Poverty has continued to remain a persistent problem in Vietnam. Rates of poverty alleviation differ in various regions - whereas the Red River Delta has shown a substantial reduction in the levels of poverty, the Mekong Delta has registered only the smallest improvements, with possible indications of an increase in inequality. Even though all regions in Vietnam have shown some progress in poverty alleviation, the inequality between regions has persisted. According to the Ministry of Labor, Invalids and Social Affairs (MOLISA), the poverty line is defined as below 25 kg of rice per capita per month in urban areas, 20 kg in rural households in lowland/midland areas, and 15 kg in highland areas. Going by this definition, poverty in Vietnam declined from 22 percent in 1994 to approximately 20 percent in 1995 and 17 percent in 2000. The category of the "very poor" or "starvation line", employed by the National Poverty Alleviation Programme in its strategy for 2001-2005, is also defined on the basis of income, i.e. VND 80,000 per month for highland and island households, VND 100,000 per month for rural households, and VND 150,000 per month for urban households. A large number of households in Vietnam lie just above the poverty line, and a small deterioration in their living standards can push them below the poverty line.

B. Poverty and Fisheries in Vietnam

Eighty percent of households in coastal communities in Vietnam generate their income from activities in the fisheries sector. However, the livelihoods of these communities are highly vulnerable to seasonal weather, typhoons and migration. Most of the fishing households belong to the poorest section of the population. Their housing is usually of poor quality, with sand floors and bamboo mats for walls. There are three main fishing

[*] The responsibility for views presented in this document rests solely with the author, and should not be attributed to any Vietnamese institution.

gears in use in the small-scale fishing sector: (i) standing net; (ii) purse seine for anchovies; and (iii) hand line and long line for tuna and mackerel. Most of the poor coastal households do not possess their own fishing boats. The price of boats and gear is high, e.g. 30-40 million VND for one long line with 500 hooks. Standing nets, 5-700 metres long, are often owned through fishing co-operatives, with each member of the co-operative "owning" a certain number of fragments.

Historical evidence suggests that the sections that are most dependent on aquatic resources are those who have been displaced from land-based agricultural activities. This is especially true in coastal areas. Most of the poor fishers do not have access to land for agriculture, since in several coastal locations, mangrove forests and agricultural land have been cleared for the development of large, intensive shrimp farming ponds on account of the high profits involved. However, a number of farmers have continued to do shrimp culture in the traditional way, depending on natural productivity. Although the profits are high, shrimp farms have tended to become unsustainable within about 4 years. Most of the poor farmers, as a result, are compelled to resort to fish capture as their final option.

Traditionally, aquatic resources provide a valuable source of income and nutrition for large number of poor households in Vietnam, and constitute an important component of the diverse and dynamic livelihood strategies in a variety of agroecological settings in the country. The small-scale artisanal fisheries sector has been identified as particularly poor and vulnerable. Due to a recent decline in resources and catches, incomes in this sector have declined dramatically, almost reaching the survival level. There is no room for savings, and approximately 30-40 percent of many fishing communities have insufficient funds even to buy food during seasons when there is no fishing.

The programme for Participatory Poverty Assessment, conducted in the province of Ha Tinh by Action Aid in 1999, provides some indication of the vulnerability of fishing households. Dependency on depleted fishery resources is identified as a cause of poverty in one coastal commune. Studies of coastal fishing villages suggest that the poorer households in the villages are the ones that depend most heavily on fishing. In coastal villages, therefore, fisheries can be regarded as a subordinate or seasonal job for poor people. In addition to the substantial number of people engaged in fishing as their primary occupation, there is an even larger number who treat fishing as an irregular, seasonal or occasional occupation.

Aquaculture resources are the main source of food and income to a number of Vietnamese households. As indicated earlier, 80 percent of the population in coastal areas depends on fisheries resources for their livelihood, mainly because they have little access to farming land. In addition to fish capture, these poor households often need to depend on aquacultural resources in marshes and mangrove forests or exploit aquacultural resources other than fish. Their income is highly unstable and open to risk due to a variety of factors such as changing weather, natural disasters and the migration of fish species. While their livelihoods are highly vulnerable, they are also unable to diversify or move completely into more productive activities. On account of their weaker social connections, the poorer sections of the population are often unable to benefit from new technologies and modes of production such as aquaculture and from credit facilities. It is significant that the major constraint reported by all the poor households in the survey was the lack of "capital investment". Although the aquaculture sector has registered significant developments in recent years, the majority of the beneficiaries of this growth have not been the poor. There is only limited evidence of poverty-focused initiatives in the sector. Therefore, for 3-4

months in a year, these households are dependent either on their savings or on loans to buy food. The situation has worsened in recent years since fish resources have declined substantially in volume, on account of the over-exploitation of resources through the use of devastating equipment, destruction of mangrove forests, and disruption of habitat.

Intensive farming production such as shrimp culture, which involves high investment and low technology, has been risky, and has had a negative impact on some poor households making them poorer. For example, in Tra Vinh province in Mekong River Delta, several poor households failed to repay their debts due to the outbreak of shrimp diseases. Such risks can be reduced with the application of low technology of culture and the maintenance of appropriate culture extension. Poorly-resourced extension agencies have been under pressure to meet production targets rather than fulfill their poverty alleviation objectives, and as a result have turned away from poor households as their primary target.

Inequality has intensified in the more intensive aquaculture production systems, e.g. coastal shrimp production. The profits from shrimp production have been concentrated in a few hands competing over finite coastal resources. The study of Tra Vinh by Oxfam has suggested that the wealthier households are able to engage in shrimp production as they have access to suitable land, and also because they have 'connections' that allow them to gain easier access to financial capital. In the longer term, this is likely to lead to an increasing gap between the rich and the poor. Diversification generates greater wealth, and there is a widening gap between those who are able to diversify their production and those who are not.

Along the South Eastern coast of the provinces of Long An, Tien Giang, Ben Tre, Tra Vinh, Soc Trang, Kien giang, Bac Lieu and Ca Mau, saline intrusion - in part due to shrimp culture - has reduced rice yields and wild catch of fresh water fish. In marine cage culture, there are also reports of conflicts between artisanal fishers and aquaculturists claiming the same water areas. Cage culture in marine waters has remained in a poor state of development. Aquatic resources often face considerable threat from environmental degradation, over-exploitation and poor management practices.

The above discussion indicates that poverty is widely prevalent among fishing households in coastal areas. The degradation of fishery resources can have a major negative impact on the lives of such people. As wild fisheries constitutes an important safety net, providing a source of income for landless and displaced people, any further degradation of fishery resources will further constrain their already limited opportunities. This situation can be improved only if the poor sections are specifically targeted by the Government's development projects through measures such as the diversification of aquaculture production, improvement in the level of technology used, and the provision of credit.

C. Fisheries and the Generation of Income and Employment

Fishing is one of the oldest occupations in the world. It is estimated that more than 200 million people all over the world depend on fisheries, directly or indirectly, for their income. There are more than 21 million fishers in the world; the actual figure may be even higher since not all fishers work full-time.

In Vietnam, as mentioned earlier, approximately 80 percent of households in coastal communities get their income from fisheries. More than 4 million people live in tidal areas and about 1 million in swamp and lagoon areas in the island line of 714 villages and wards

belonging to 28 coastal provinces and cities. In addition to this, there are tens of millions of farming households. According to FAO estimates, one in every twenty-five persons in Vietnam is engaged in fisheries activity. This means that there is a considerable labour force of around 3 million employed in the fisheries sector in Vietnam. Due to the lack of access to fishing instruments and decreased capture production, a number of workers have shifted from fishing to aquaculture. Some engage in both agriculture and aquaculture activities. Over the past years, farmers and fishers have accumulated considerable experience in aquaculture. They have contributed effectively to the successful implementation of the aquaculture development programmes.

Table 1: Fishing Households by Region

Region	**Fishing Households 1990**	**Fishing Households 1998**	**Population of Fishers 1990**	**Population of Fishers 1998**
Whole Country	228 650	301 952	171 130	557 921
Red River Delta	12 415	16 745	55 326	77 630
North East	5 621	7 635	26 804	37 270
North West*	147	174	648	1 068
North Central Coast	62 610	72 967	309 843	370 798
South Central Coast	49 213	63 783	260 947	335 099
Central Highlands**	247	409	1 336	2 260
North East South	37 720	52 594	201 424	285 232
Mekong Delta	60 677	87 645	314 802	448 564

(Source: Government Statistics Organization (GSO) (1999))
* The majority of fishing households in the North West are in Hoa Binh (100 in 1998), with 60 in Son La and 14 in Lai Chau.
** Most fishing households in Central Highlands in 1998 are in Dak Lak (403).

According to these figures, the largest numbers of fishing households are in Mekong Delta, North Central Coast, South Central Coast and North-East South. It is surprising that the figures are so low for other areas, in particular the North West and Central Highlands. However, this may perhaps be symptomatic of inland fisheries, in which there may be a significant proportion of people who fish, but only a small proportion who regard themselves as "fishers".

Capture fisheries remain of particular importance in the livelihoods of poorer people. Some data indicate that the poor spend more time on capture fisheries (in rivers, lakes and coastal areas) than on aquaculture in all regions in Vietnam with the exception of South Central Coast. There are several possible explanations for this: the decline in near-shore artisanal fisheries has been most pronounced in the South Central Coast while this region also has the largest off-shore fishery production.

As in other developing countries, the small-scale fisheries sector in Vietnam, being the major economic activity in far-flung coastal areas with hardly any alternative source of employment, seems to have played a crucial role in employment creation, income

generation and poverty alleviation. This sector contributed a large portion of the total catch in the country and is the major source for fish used for direct human consumption. Earlier, the artisanal and small-scale sector was generally seen as backward and inefficient. However, greater attention is currently being paid to this sector on account of its vital contribution to local food security and employment. It would appear that to catch a given amount of fish, the small-scale fishers tend to employ more people, require smaller capital and produce less waste. In Vietnam, 90 percent of all fishers are artisanal and small-scale. Most of them are very poor.

The fisheries sector is a significant source of income, not only in the case of full-time fishers, but also for households that combine fishing as a component of their wider livelihood strategies. A higher percentage of income is derived from fisheries by poorer households than by middle-income households. However, the percentage of income derived from fisheries is highest in the case of wealthier households. The value of the catch was almost a third of the reported income for the poorest group, and over 15 percent for the low-income group. (The average income from aquaculture rearing ranges from US$36 - 79.00 per month in Mekong Delta). For the other groups the value was less than 10 percent. However, data is not easily available on the income of fishing households on account of the diversification of aquatic resource use, particularly in inland areas where most of aquatic resource is used for domestic consumption.

D. Fisheries: Food Security, the Preservation of Traditional Knowledge and Linkages with Other Rural Activities

Fish provides a vital source of protein to millions of people all over the world. The quantity of fish available for direct human consumption increased to approximately 80 million tons, accounting for about two-thirds of the global production. However, people in developing countries rely on fish for a much larger portion of their animal protein than people in industrialized countries. It is the prime source of animal protein for more than one billion people in the developing world.

The consumption of different kinds of aquatic products in Vietnam accounts for approximately 50 percent of the consumption of protein-containing food in the country. The per-capita consumption of fish is around 8 kg per year, of which cultured fish accounts for about 30 percent. In comparison to the international consumption figures, the Vietnamese consumption level is very low. Fish is the primary source of food for the poor coastal households in Vietnam. In Mekong Delta, 83 percent of the low-income families catch fish in rice fields, canals and rivers. On average, the annual catch is 531 kg per household, half of which is sold in order to earn 14 percent of their total income. Approximately 60 kg of the catch is used annually per person as direct food. Studies conducted in Mekong Delta indicate that household members annually consume over 30 kg of fish per person. Fishers' families show an even higher consumption rate –50 kg per person annually. The consumption is even higher in the province of Long An where household members consume over 60 kg of fish per person annually.

However, Vietnamese families spend far less money on fish than on meat. Improvements in the standard of living tend to lead to increased food consumption. As there is a preference for food with less fat content, fish and food derived from other aquatic products are likely occupy an important part in the people's diet in future. Meanwhile, the supply of live and fresh fish on the spot with lower costs of transportation will become more

important. According to the fisheries industry, the total fisheries production is estimated to be over 3.5 million tons in 2010, in which 40 percent will be used for export. Data compiled by the FAO indicate that 30 percent of aquatic products will be reserved for animal raising, and the remainder will be used for human consumption.

Artisanal fishing operations tend to be more sustainable and less damaging to the environment, on account of the use of passive fishing gears and techniques, e.g. gillnets. Small-scale fisheries ventures are much more than business enterprises - they are also social and cultural enterprises and a way of life for millions of people in Vietnam. This explains why small-scale fishers often persist in their occupation, clinging to their accustomed way of life, even when the returns decline.

Although fish stocks have been depleted in highland areas, plenty of water is still available in natural and household ponds, opening the possibility of small-scale aquaculture in these areas. This can help secure food safety and create more income for poor households in highland regions.

E. The Export Demand for Fisheries Products

There is an increase in demand for aquatic products exported from Vietnam in several countries as well as within the region. In 2002, the export turnover has been estimated to reach US$ 2.1 billion, increasing almost by 20 percent as compared to 2001 and by about 42 percent in comparison to 2000. Among the exported aquatic products, shrimp products are the most prominent, accounting for an increasing proportion of the total export volume. There is considerable demand in foreign markets also for products such as mollusks, grouper, snapper, yellow catfish, male Nile tilapia, snakeskin gourami, snakehead, eel, soft shell turtle, and frog exported in live state and in frozen fillet form. In Japan, there has been an increasing tendency to use aquatic products as a substitute for meat, the annual consumption of the former being 71.5kg per captia. The United States and the European Union also show a similar tendency. It is estimated that in 2005, Japan will account for 32-34 percent of Vietnam's total export of aquatic products, Asia (including China) 20-22 percent, North America 20-22 percent, EU 16-18 percent, and other markets 8-10 percent. The pattern of variation in the price of aquatic products in the world market shows that the price of shrimps and demersal fish species is likely to increase in the period 2000-2010.

F. Aquaculture and Its Potential for Poverty Alleviation

Due to resource degradation, there has been a decline in the production of fisheries capture in Vietnam, and aquaculture has become the main source for the supply of fish for domestic use and export. Aquaculture has been traditionally practiced by several Asian countries. Recently, there has been a rapid growth of aquaculture production, especially shrimp, which is one of the most profitable species. In Vietnam, aquaculture production is estimated to reach 950,000 tons in 2002, accounting for 41.3 percent of the total fisheries production in the country. The Vietnamese Government has, as part of its national policy of Poverty Alleviation, approved the programme "Aquaculture from 1999-2010" proposed by the Ministry of Fisheries (MOFI). The purpose of the programme is to secure food for the country and to provide resources for export. In addition, it also aims to create employment for about 2 million persons (MOFI, 1999). The programme has set a target of 2,000,000 tons of fish in 2010, contributing 60-65 percent of the total production in aquaculture in the country. On 15 June 2000, the Government of Vietnam issued Decree

09, outlining some policies for transforming the economic structure in the consumption of agricultural products. In this, the Government suggested that aquaculture should be developed sustainably, based on the use of low and coastal areas. Diversifying shrimp types in intensive farming and culture, combined with other fish types of high value in fresh, brackish and saline water, is considered to be an appropriate strategy for sustainable aquaculture. Allocating rights for the use of water surface and building a credit-priority regime for the poor, especially in remote areas will facilitate the effective implementation of this decree. However, there is a lack of co-ordination in the provision of support and in the functioning of the programmes.

Unlike other countries in the world, the aquaculture system in Vietnam is mostly carried out at the household level. This can lead to positive outcomes in terms of the environment and the economy. In a fresh water environment, the fish is raised primarily in a combined VAC system (i.e. Gardens, Ponds and Sties), rice fields or in small ponds. This system needs low investment and gives low yields, but is very friendly to the environment and has a high economic effect. This system accounts for only 30 percent of the total farming land. However, its production income forms 30-70 percent of the total agricultural income of the households. Another example is that the use of fertilizers can be reduced by 70-100 percent in the fish-rice combined farming system, without its resulting in any decline in rice yield.

In the brackish water environment, a system of "convertible" farming has been introduced. In this system, different species of crab, fish, shrimps, mollusks, and sea weed are, alternately, raised in small and medium-scale ponds. This technique helps in improving the quality of the culture environment (ponds, fields) in order to obtain high production yields.

Marine culture is also a means for increasing aquaculture production for the poor. However, it is still a new concept in Vietnam and has not led to successful outcomes. At present, research institutes are developing appropriate technologies and devising appropriate means for the utilization of potential resources. Initiatives in marine culture development have been introduced in some areas with the support of NORAD (Norway) and DANIDA (Danemark).

In the South of Vietnam, Mekong Delta is the biggest source of aquaculture and marine capture. A large number of highly vulnerable agricultural eco-systems exist in this region. Over the past two decades, 4 million hectares of marshes have been transformed into agricultural land in Mekong Delta, through the construction of canals, dams and dikes, re-settling, the cultivation of deserted land, and intensive farming, making this region the biggest agricultural system of the country. This has resulted in the destruction of 70 percent of mangrove forests and 95 percent of cajuput forests. The poorer sections in this delta are badly affected by floods during rainy seasons, and aquacultural resources provide their only source for food at this time. In dry seasons, flood water is reduced by 95 percent, leaving the remaining water salinated, and aquacultural production is carried out in this brackish water. Improvements in the management of shrimp farming, in combination with mangrove production in Mekong Delta, have helped raise living standards without leading to the destruction of forests. Between 60 and 70 percent of local households are involved in aquaculture.

There is considerable potential for the development of aquaculture for poor farmers in Vietnam. This should involve the diversification of agricultural production or its

integration with other activities, using aquaculture an alternative source of income. Appropriate technologies have been introduced, and many of the constraints have been identified. For the poor sections, the main constraint is not the lack of access to natural capital, but the lack of access to credit, training, and technical and infrastructural support.

Some development initiatives in the fisheries sector have attempted to involve the poor, especially those whose lives depend heavily on fisheries. Internationally-funded poverty alleviation projects have been carried out in collaboration with this sector to help the poor. However, the Ministry of Fisheries (MOFI) has so far only played only a modest role in national poverty alleviation programmes. In 1994, MOFI started Program 773 which encouraged farmers to utilize deserted land (wetlands, marshes, tidal areas, etc.) to develop aquaculture. So far, 100 projects have been approved under this programme with a total capital of VND 1,130 billion. These programmes focus on building infrastructure and improving the water surface in deserted areas, in order to support aquaculture programmes. Research institutes, especially the Institute of Aquaculture II has carried out several research and development projects in order to transfer culture technology to farmers.

The development of aquaculture will contribute to a shift in the structure of rural economy through the creation of employment, income generation and the improvement of the living standards for farmers and fishermen. It will thus facilitate the building of social order and security in rural coastal areas, as well as in the border and remote areas.

G. Challenges in Building Poverty Alleviation Strategies

Though the fisheries sector has a significant potential role to play in poverty alleviation in Vietnam, appropriate strategies and policies need to be devised in order to solve the following challenges:

- The Fisheries Development Plan needs to be made an integral component of the Government's Rural Development Plan. This will help in the formulation and the effective implementation of a plan for poverty alleviation based on existing local resources and the priority needs of local people. The experience of several localities indicates that care needs to be taken to ensure that the development of aquaculture does not solely benefit the rich and that it does not render the livelihoods of the poorer sections unstable. This means that the development of aquaculture in poor coastal districts may have negative effects if poor people have no access to credit programmes and to rights of land use. Similarly, no benefits can be gained from fishery extension services if the local population does not have access to the language used, as in case of the Khmer people.
- Emphasis needs to be placed on capacity building in order to strengthen agencies and organizations which provide assistance to the poor. Policies and plans should be devised to respond to the needs of poor households in the locality, to build their capacity, and to enable them to participate in the planning, implementation, monitoring and evaluating processes.
- There is a need to upgrade awareness and enhance the exchange of experiences in the use of aquaculture as a means of poverty alleviation. Effective links with the regional programme on "Assisting the Management of Aquaculture Resources" can be useful for showcasing the positive results of aquaculture in Vietnam before policy makers and donors in order to raise funds for rural development projects.

- It is necessary to set up a widespread, nationwide network among poor farmers and aquaculture resources managers, paying special attention to differences in the levels of education and experience and, at the same time, enhancing equity and harmony among members. The network should also include stakeholders such as service and equipment suppliers, manufacturers, brokers, credit providers, governmental organizations in farming extension, research, training and education, NGOs and donors.
- As mentioned earlier, enhancing the access of the poorer sections to property, finance (credit, insurance, saving), and market information remains crucial for the successful implementation of poverty alleviation programmes.
- It is essential to develop environment-friendly technology for coastal aquaculture (brackish and sea water). For instance, in Vietnam, the technology required for marine culture has not been developed, and the development plan continues to remain in its formative stage. Without adequate technology, aquaculture can result in a negative impact on the environment through pollution from waste, diseases, the depletion of natural fish flocks, etc. In fresh water aquaculture, on the other hand, appropriate production processes have been developed, although it will be useful to pay greater attention to local species and to strengthen technology-transfer to the poor.
- Care needs to be taken to restrain modes of use of natural resources that impact negatively on the environment, bio-diversity, and coastal and inland aquacultural resources. The integration of the Aquaculture Development Plan into the national Rural Development Plan will facilitate this.
- It is necessary to ensure effective co-ordination between donors and governmental organizations.
- There is a need to start various types of initiatives, including the rehabilitation and enhancement of fisheries habitats, and the introduction of new co-management regimes. For poverty alleviation, wild fishery - both inland and coastal - is of greater importance than aquaculture. While the poorer sections have generally not benefited from aquaculture extension, they have tended to become increasingly reliant on aquatic resources as a result of indebtedness, landlessness and displacement. Combining wild fisheries with aquaculture activities may be beneficial.

H. Sustainable Aquaculture for Poverty Alleviation (SAPA)

The strategy for Sustainable Aquaculture for Povery Alleviation (SAPA) was designed by the Ministry of Fisheries (MOFI) as part of the national strategy in poverty alleviation designed and co-ordinated by the Ministry of Labour, Invalids and Social Affairs (MOLISA). The primary aim of SAPA is to improve the living standards of the poorer sections through the development of aquaculture.

SAPA's specific objectives include the following:

- consolidating and upgrading management capacity, especially at local and community levels, in order to better satisfy the needs of the poorer communities whose lives depend wholly or partly on aquaculture;
- improving access for the poor to facilities, information, credit, farming extension and the market;
- improving the exchange of information between stakeholders inside and outside the sector, through raising awareness, sharing experiences, setting up network, co-coordinating within or between sectors as well as with donors, introducing community participation in the design, implementation, supervision and evaluation of plans, and announcing development policies;

- developing and introducing environment-friendly technology in aquaculture, both inland and marine, which involves lower levels of risk and investment; and
- building up appropriate management strategies and emulating successful experiences.

II. FISHERIES POLICIES IN VIETNAM: AN OVERVIEW

A. The Status of Fisheries in Vietnam

Capture fisheries and aquaculture are important components in Vietnam's economy. Although the production of marine products has shown a rapid increase, this growth has mainly been in aquaculture, and not in capture fisheries.

1. Capture Fisheries

At the end of 2001, the Vietnamese capture fisheries industry had 78,978 fishing vessels with a total capacity of 3,722,577 HP. Among these, 6,005 vessels were fitted with engines of 90HP or above, with a total capacity of 1,000,000 HP, i.e. an average of 166.5 HP/unit. These vessels form Vietnam's offshore fishing fleet. Eighty-five percent of the remaining fishing vessels have engines with capacities below 45 HP. Most of them lack adequate communication facilities, buoys and navigational security facilities, and are capable of operating only in coastal areas. Among vessels fitted with engines of 45 HP or above, 33 percent have positioners, 21 percent have echo sounders, 61 percent possess walkie-talkies, and 12.5 percent have long-distance radio. Transport and service vessels account for 0.7 percent of the total number of fishing vessels, amounting to 2.1 percent of the total capacity. This is far below the requirements of the sector.

Demersal fish accounts for 30-35 percent of capture fisheries in Vietnam, and pelagic fish 65-70 percent. Trawling operations in sea areas at depths of 50-100 metres have been limited in Vietnamese waters due to the lack of availability of large-sized fishing vessels capable of fishing demersal fish in distant waters. Vietnamese capture fisheries are mainly near-shore and small-scale, with offshore fisheries amounting to only 15 percent. The distant-water fleet in Vietnam is very small as compared to those in other fishing countries.

The fisheries industry had about 430,000 labourers engaged in marine product capture in 2001, of which 310,000 persons (72 percent) were involved in coastal fishing. The number of fishers operating in offshore waters was 120,000 (28 percent).

With the increase in the number of fishing vessels, co-operatives have developed in the fishing sector. At present, there are 450 fishermen's co-operatives with 15,360 members, and 4,300 fishing mutual-aid teams with a membership of approximately 21,000.

2. Aquaculture

Aquaculture in the form of shrimp, prawn, crab, and fish farming has proven highly profitable as the domestic demand for marine products continues to grow in several coastal regions. Shrimp farming has shown particularly rapid expansion in recent years. Aquaculture has also helped in poverty alleviation in mountainous and low-land areas. At the end of 2001, aquaculture was practiced in an area of about 1,090,000 ha, of which, 220,000 ha were transferred from rice fields, salinated land, and inefficient salt-producing

land. The Vietnamese Government has allowed farmers to move from inefficient agricultural production into aquaculture. Most of the transferred land is in the Mekong Delta with an area of more than 190,000 ha. Freshwater aquaculture is practiced in 410,000 ha of land and brackish water aquaculture in 480,000 ha.

Aquaculture production is mainly a private-sector activity, carried out by households and farms. Collective aquaculture has recently been initiated in Vietnam with an initial 3,000 ha run by 34 co-operatives involving 3,226 labourers. The total aquaculture production in Vietnam amounted to 890,000 tons in 2001. The Vietnamese Government regards aquaculture as the main source for the export of fisheries products.

Tiger shrimp rearing has developed rapidly in recent years in Vietnam, spreading through coastal localities and leading to improved incomes for farmers. Shrimp rearing has also become an effective means for poverty alleviation in some rural areas of the country.

Freshwater aquaculture, especially basa fish and tra fish and some other exportable fish species, has registered a rapid development on account of the expansion of markets and the application of advanced techniques in breed production and culture. In 2001, basa fish and tra fish productions were estimated at 120,000 tons. These were processed and exported, accounting for 32,000 tons in volume, and US$ 75 million in revenue.

Aquaculture in Vietnam has been profitably linked to export activity in recent years. Fish farmers have begun raising a diverse range of exportable species, including tiger shrimp, basa fish, tra fish, lobster, grouper, and bivalve mollusks. Processing and exporting firms also engage in a variety of other related activities such as fry production, the production of raw materials, the introduction of new rearing technologies, and the provision of training and credit to farmers.

However, aquaculture development for export continues to face difficulties in Vietnam, as farmers do not possess adequate knowledge and awareness about food safety.

B. Fisheries Policies

As mentioned above, more than 90 percent of the Vietnamese fishing boats operate in near-shore waters, fishing in areas of less than 50 m depth. Near-shore fisheries in Vietnam have already been heavily exploited, reflected in the declining rate of catch per unit of effort. There has also been a shift from generalized fishing to targeting key species for export, leading to the overfishing of species such as squid and shrimp. The management of the near-shore fisheries in Vietnam has not been very effective with little enforcement of regulations.

The Vietnamese Government has been promoting fishing in offshore waters deeper than 50 m. However, there has been very little systematic analysis of the potential of offshore waters through a careful assessment of fish stock and fishing ground. Current estimates of potential have been based on preliminary fishing surveys conducted several decades ago. The management of offshore fisheries in Vietnam has been inadequate. The sea boundaries are poorly demarcated and subject to international dispute. The Government has committed substantial investments in infrastructure to in order to support fishing activities. This includes the development of landing sites and port facilities to provide fuel, ice, and fresh water.

In recent years, MOFI permitted state-owned fisheries firms and some localities to lease vessels and hire foreign experts in offshore fishing in order to have better access to modern technologies and new catching and management methods. These initiatives have led to some positive results. In 2002, MOFI assigned Ha Long Corporation to facilitate bilateral agreements which would allow Vietnamese firms to engage in capture fisheries in foreign fishing grounds. In order to promote offshore fishing, MOFI and the local authorities have placed restrictions on building low-capacity vessels.

The fisheries industry has been actively promoting training in order to upgrade the skills of those engaged in capture fisheries, helping them to keep pace with developments in applied science and technology as well as to master the operation of equipment installed in offshore fishing vessels. However, these efforts have been limited to the training of captains and chief mechanics, and most of the fishers continue to use traditional techniques.

Aquaculture in Vietnam shows a significant potential for expansion, through both the intensification of production in existing areas and the addition of new areas. It is estimated that only half of the area suitable for aquaculture in Vietnam is being used at present, and approximately 800,000 ha of land can be developed for use by the sector.

Although the Vietnamese Government has identified the promotion of offshore fisheries as one of its objectives, efforts in this direction have been confined to the consolidation of its distant-water fleet. The country has not entered into any bilateral, regional or multilateral agreements for the promotion of offshore fisheries, and foreign fishing boats do not operate in Vietnamese waters. Though the government has a policy of subsidies, it is limited to providing low-interest credit for building distant-water vessels.

C. Bilateral, Regional and Multilateral Fishing Agreements

Vietnam has not signed any fishing agreement with other countries, regionally or internationally. There have been some agreements on the transfer of fishing technology, especially related to tuna fishing, from some countries such as Korea and Japan.

D. The Impact of Agreements on Small-scale Fisheries, Fish Stock and Food Security

1. Small-scale Fisheries

In the context of Vietnam, the terms “near-shore fisheries” and “small-scale fisheries” are virtually identical in meaning. Small-scale fisheries, in general, denote the smallest viable fishing units in a province, with downward or lateral compatibility in fishing gear operation. They refer to a specific regime of fishing craft or gear - or both in combination – which occupies the bottom-end of the power hierarchy in Vietnam’s fisheries industry.

It is estimated that more than 3 million people who live in 30 provinces in Vietnam depend, directly or indirectly, on fisheries for their income. Almost 90 per cent of all fishers are small-scale operators. Typically, the small-scale sector of Vietnamese fisheries has some of the following characteristics: (i) the use of a small fishing craft and a simple gear of considerable diversity, with low capital intensity; (ii) a system where fishers work as share-workers or owner-operators of their fishing units; (iii) decentralized and spatially

dispersed settlements; (iv) the capture of fish close to home communities in relatively near-shore waters in single day-or-night operation; and (v) considerable dependence for finances on intermediaries or on those who buy their harvest.

As we saw earlier, although the Government of Vietnam promoted an offshore and industrial model of fisheries development from the 1980s, this has not met with much success. A large number of offshore ship-building projects subsidized by the Government turned out to be ineffective. Small-scale fisheries on the other hand continue to play an important role in Vietnam, in ensuring local food security and employment, and even in effecting a more equitable distribution of benefits within the fishing community.

It would appear that small-scale fisheries should be considered central to policy-making in the fisheries sector in Vietnam, especially if economic and social considerations as well as resource conservation and sustainable management are to be given due importance. This is crucial since small-scale fishers in Vietnam continue to be in a state of poverty in spite of two decades of fishery development and national economic growth. The small-scale fisheries sector has grown in volume and contributed substantially to the country's fish production although it has received very little subsidization from the government. The contribution of small-scale fisheries to foreign exchange revenue in Vietnam is significantly higher than the contribution of small farmers or peasants producing rice.

In emphasizing the importance of the small-scale fisheries sector in Vietnam, it is useful to remember that, at an international level, this sector was accorded special recognition by the 1995 FAO Code of Conduct for Responsible Fisheries. Article 6.18 of the Code states:

> Recognizing the important contributions of artisanal and small-scale fisheries to employment, income and food security, States should appropriately protect the rights of fishers and fish workers, particularly those engaged in subsistence, small-scale and artisanal fisheries, to a secure and just livelihood, as well as preferential access, where appropriate, to traditional fishing grounds and resources in the waters under their national jurisdiction.

2. Fish Stock

Based on the allocation from FAO, the fishing grounds for capture fisheries in Vietnam lie within the two richest fishing grounds for seafood in the Pacific Ocean:

(a) *North-West Pacific Ocean* (code 71): This is the richest fishing ground and the main capture ground with a full yield of 20 to 24 million tons of seafood. Not only is the seafood yield of this fishing ground very large, but it also possesses a lot of precious species such as salmon, cod, tuna, mackerel, prawn, squid and cuttlefish. Distant-water fishing vessels have come to fish in this ground from countries such as China, Japan, Korea, and Russia.

(b) *Middle-West Pacific Ocean* (code 77): This fishing ground is also known as the equator of the West-Pacific Ocean. This is the world's fourth biggest fishing ground with an annual yield of 7.5 to 9.7 million tons, accounting for 10 percent of the world's total fish production. This fishing ground is the richest in valuable export species such

as tuna and sea prawn. Indonesia, Thailand, Philippines and Vietnam are the leading countries engaged in the capture of these species.

MOFI's estimates show that the catch production of Vietnam was 1.35 million tons in 2001, accounting for about 1.3% of the world catch production. The over-exploitation of fishery resources has led to the depletion of fish stock. Many of the targeted species have been exploited to their limits, and the near-shore resources are almost exhausted. Production can be increased only through the promotion of fishing in offshore waters deeper than 50 m for target species such as tuna and sea prawn. Governmental fisheries strategies to promote offshore fishing will help in protecting the fish stock in near-shore and coastal areas. However, they can only be effective in the long term since at present the Government does not have effective control over the fishing activities of small-scale fishers. In the absence of adequate training, modern technologies and efficient equipment, small-scale fishers continue to destroy the coastal and near-shore environment (fish stock and habitats) in Vietnam.

3. Food Security

Since offshore fishing has not developed adequately in Vietnam, accounting for only 10-15 percent of the total fisheries, the main source of food in the country continues to be near-shore and coastal fishing. In Vietnam, 80 percent of the coastal population depends on fisheries resources and 90 percent among this group are below the poverty line. The need for fish as daily food causes pressure on the fishing industry in general and on coastal and near-shore marine resources in particular. As a result, coastal fish stocks and other marine resources are likely to decline further. This explains the Government's emphasis on promoting offshore fishing and aquaculture. While the effective development of offshore fishing in Vietnam has a long way to go, aquaculture has had considerable success in the country. It is estimated that aquaculture production will reach 950,000 tons in 2002, accounting for 41.30 percent of the total fisheries production in Vietnam. In Mekong River Delta, the main source of aquaculture production, some reports have suggested that the annual per capita consumption of fish is in the range of 30-60 kg, considerably higher than the average world consumption of 10-30kg. This indicates clearly the importance of aquaculture in Vietnam and the potential role it can play in sustainable fisheries production in the future.

III. TRADE BARRIERS AFFECTING FISHERIES EXPORTS FROM VIETNAM

A. Tariffs

Worldwide, the average tariffs for fish products continue to be more than 40 percent, well above the average of 6 percent for manufactured goods. Tariff reduction has been below average in the case of fish, as well as in products which are of major export interest of developing countries. In some cases, fish products are among items whose rates show tariff peaks, i.e. whose rates are the highest among all products. Vietnamese fish products reflect these features, and tariffs will be one of the central issues in further negotiations.

B. Non-tariff Measures

1. Anti-dumping in Mississippi-Mekong Catfish Wars

Catfish is a major aquatic animal protein source in many South-East Asian countries, such as Thailand, Laos, Cambodia and Vietnam. Vietnamese catfish mainly belong to genus *Pangasius,* in which the most valuable are Basa (*Pangasius larnaudii* Bocourt) and Tra (*Pangasius micronemus* Bleeker). Genus *Pangasius* includes many species which are referred to in ordinary English as 'catfish'.

Cultivated widely in Vietnam, catfish has a history of more than 50 years in the country. Both extensive and intensive culture systems are adopted by fish farmers living in South Vietnam, especially in Mekong River Delta. Basa catfish or *P. larnaudii* has been raised in ponds, preserved in South Vietnam and popularised in floating cage houses in An giang province. Basa raising is a commercial activity in Vietnam. Basa fish used to be supplied to cities in the South Vietnam and, before 1975, and was exported to some overseas markets such as Hong Kong, Singapore and Taiwan. Its feed used to be small fish captured in the branches of Mekong Delta. Tra catfish or *P. micronemus*, on the other hand, has been traditionally raised in ponds in South Vietnam. Formerly, tra fish rearing was not a commercial venture, and was aimed primarily at self-supply in order to satisfy the protein needs of poor farming households.

Catfish fry is caught from Mekong River, at the borderline between Cambodia and Vietnam. Its breeding-ground is a water branch of Mekong River in Cambodia. In the past, collecting wild catfish fry used to be an important odd income for many fishers living on Mekong riverside. However, wild catfish fry resources have been depleted since the mid-1980s. Since 1995, catfish culture industries have been developed in the Mekong Delta and, thanks to their mass production of catfish fry, it has become possible to meet fully the demands for catfish culture in this region.

Catfish farming has been a traditional means of livelihood for farmers in Vietnam's Mekong Delta for generations. Not only is fish the primary source of protein for residents in the delta and other parts of the Mekong basin, but also, fish and fish products are important sources of income for most rural families in the Mekong Delta. Fish farming for the most part has been small-scale and artisanal. Before the liberalization of Vietnamese economy, catfish products used to be consumed primarily in the domestic market. In the mid-1980s, catfish began to be exported, initially in the form of fillet. The processing of basa fish and tra fish was carried out under the technical supervision of Australian experts. With production figures reaching 50-100 tons per year, catfish fillets began to be exported to the Australian market. Since 1990, basa fish fillet has attracted the interest of Asian markets such as Hong Kong and Singapore, and the volume of export has gradually increased. The export price has also increased from US$ 3.5-4.5/kg to over US$ 5/kg. Basa fish fillets have also entered markets in North America and the European Union.

The expansion of markets has led to the further development of basa and tra fish rearing. The number of raising floating rafts has shown a pronounced increase from 2,000-2,500 in 1995 to over 3,000 in 2001. Among these, there are several large rafts with a capacity of 150-200 tons of fish/raft. Since 1996, the export of basa fish has reached a volume of 4,000-5,000 tons. The export prices are also likely to increase.

In 1997, tra fish began to be raised in rafting cages in large numbers on the Mekong River, and this number has rapidly increased in the following years. The export rate of tra fish has also increased by 20-30 percent of the total amount of exported and raised fish in rafting cages. From 1999 onwards, tra fish has replaced basa fish, accounting for almost

80-90 percent of the total export volume. Tra fish is usually exported under the names of White River Cobbler, Sole Fillet and Pangasius Fish.

However, the export market for catfish has been unstable, and export became impossible in some years, leading to bankruptcy for several Vietnamese fishers along the Mekong Delta. The major export markets for Vietnamese catfish are the United States, European Union, Japan and Hong Kong. Vietnam began exporting catfish to the United States in 1996, and supplies about 2 percent of the United States market at present, valued at about US$ 500 million.

In 2001, the Catfish Farmers of America (CFA), comprising commercial fish producers and agribusiness, initiated a catfish lobby. Led by Congressional members in the six southern states of the United States, the lobby has persistently campaigned for a ban on the imports of catfish products from Vietnam in an attempt to expand its own share in the fish market. The lobby charged that the catfish produced in Vietnam was raised in unhygienic conditions and was unfit for consumption in the United States. A senator even alleged that the catfish raised in the Mekong basin was poisonous on account of the huge amounts of Agent Orange that was dumped into the Mekong River by United States air force in the past. These claims were refuted by the United States Embassy in Vietnam, which undertook an examination of production conditions and concluded that the quality of Vietnamese catfish farming in the Mekong basin was above reproach.

A group of lawmakers in the United States claimed that Vietnamese catfish was, in scientific terms, not catfish at all, and that it should not be sold under the label of "catfish" in the United States market. They demanded that the United States Food and Drug Administration (FDA) process only certain types of fish raised in North America - specifically those that grow in the six southern states - as catfish. A ban was sought to be imposed on the import of Vietnamese catfish on grounds of health and labelling.

After an inadequate review and debate about the claims of the catfish lobby, the United States Congress passed an amendment in December 2001, banning the use of the term "catfish" to describe any fish product, unless it originated in the United States. This shut the door for Vietnamese catfish products to the United States market. According to the Farm Security Act of 2002 (H.R.2646; now P.L.107-171) promulgated by President George Bush on 13 May 2002, it is now illegal to label Vietnamese catfish of the genus *Pangasius* as "catfish". Section 934 of the Act which concerns the "Market name for *Pangasius* fish species" stipulates that

> the term "catfish" may not be considered to be a common or usual name (or part thereof) for the fish *Pangasius bocourti*, or for any other fish not classified within the family *Ictaluridae*, for purposes of section 403 of the Federal Food, Drug, and Cosmetic Act, including with respect to the importation of such fish pursuant to section 801 of such Act.

This is reinforced by Section 755 of the Agriculture Appropriations Act of 2002 (H.R.2330; now P.L.107-76):

> None of the funds appropriated or otherwise made available by this Act to the Food and Drug Administration shall be used to allow admission of fish or fish products labeled wholly or in part as "catfish" unless the products are taxonomically from the family *Ictaluridae*.

Vietnamese catfish exported to the United States was thus obliged to be described as "basa" or "tra" without the suffix “catfish”, despite the fact that there are currently 2,500 species of catfish belonging to the order catfish *Siluriformes,* inhabiting the world waters, which are called by the common name “catfish” in English. “Catfish” is not a specific name for channel catfish reared in the United States. Asian Institute of Technology (AIT) in Bangkok uses the name “catfish” to refer to all species living in waters of Mekong Delta which belong to the families such as *Clariidae, Siluiridae,* and *Plotosidae* (belonging to *Siluriformes*). The decision of the United States government to restrict the label “catfish” to products from within the United States is clearly an instance of the use of scientific data as a non-tariff barrier.

In response to the ban, Vietnamese enterprises began registering their two main exported fish species as “basa fish” and “tra fish”. These species, though not labelled “catfish” anymore in the United States, continue to be popular in North America not only on account of their competitive price, but, more importantly, their taste. Vietnamese catfish is lean, and has a special flavor and colour. The strong flow of the Mekong River makes the fish significantly fresher, cleaner and tastier than fish raised in still ponds. The Vietnam Association of Seafood Exporters and Processors (VASEP) and seafood producers stated that Vietnam is proud of the basa fish and tra fish raised in the freshwater areas of Mekong Delta, just as Norway is proud of its salmon products, and France its cognac. These fish are typically Vietnamese products, with a potential to expand their market share. The export situation during the first six months of 2002 shows that basa fish and tra fish products have begun moving from the United States market to other markets. VASEP has begun registering basa fish and tra fish as trade marks, in order to protect the rights and the long-term benefits of seafood processing and exporting businesses, as well as the poor farmers in Mekong Delta.

It is acknowledged that raising basa fish and tra fish is almost the sole occupation of most of the fish farmers in the Mekong Delta. If catfish trade declines due to a change in trade agreements or a huge increase in tariffs, fish farmers will face severe difficulties in switching to new occupations. Most fish farmers do not possess sufficient land or the required skills and experience for alternative agricultural production. Nor do they have the option of choosing other occupations for an income. Since much of the fish raising is artisanal, most fish farmers do not have sufficient reserves of capital or assets that can tide them through rough times.

The basa fish and tra fish processing and export sectors provide employment to more than 10,000 workers across the Mekong Delta in a range of activities from directly raising catfish to selling fish feed and providing small-scale finance, credit and veterinary services. These include labour from local communities as well as migrants from neighboring districts and provinces. Incomes range from approximately US$ 36 to US$ 79 per month, depending on the specific job and the volume of work. For many workers, these wages are the sole source of income for their households. The total number of people who depend completely on the catfish farming sector - from artisanal fishers to workers and service providers - is not less than 20,000 people. A decline in the catfish processing and export sector is likely to result in destitution for thousands of households.

After the promulgation of the Farm Security Act of 2002 (H.R.2646), the exports of Vietnamese basa fish and tra fish to the United States market intially registered a small dip and then began rising again. Unable to withstand this competition, the United States catfish lobby began preparing a case against Vietnamese seafood exporters for dumping.

On 28 June 2002 the United States Department of Commerce (DOC) received a petition from CFA and eight individual catfish processors in the United States demanding an anti-dumping investigation into the imports of certain Vietnamese frozen fish fillets. The petitioners claimed that they were acting on behalf of all catfish farmers in the United States since their catfish products accounted for 85.7 percent of the total United States market.

Invoking section 732 (b) of the United States Tariff Act of 1930, the petitioners alleged that the imports of certain Vietnamese frozen fish fillets are being, or are likely to be, sold in the United States at less than fair value, and such imports are materially damaging or threatening to damage the United States catfish industry. The petitioners also alleged that Vietnam is a non-market economy (NME). The petition named the Vietnam Association of Seafood Exporters and Processors (VASEP), who represented 56 seafood processors in Vietnam, as the defendant in the case. Some of the firms named in the petition were not related to the production of varieties of catfish exported from Vietnam.

This petition caused considerable shock to the Vietnamese Government, VASEP and all those involved in catfish farming in Vietnam. On 29 June 2002, VASEP issued a press release stating that the charges levelled by CFA were unreasonable, and that the anti-dumping petition did not state the prices of basa fish and tra fish sold in Vietnam and in other markets in order to compare them with the prices at which they were sold in the United States market. VASEP pointed out that the market price is the result of the balance between demand and supply in a market. The low price of channel catfish in the United States resulted primarily from the excessive investment by American channel catfish farmers into this sector in recent years, which caused the volume of channel catfish supplied in the United States market to exceed the demand for this product. According to data from the American Ministry of Agriculture, the volume of channel catfish sold by CFA to processors reached 590 million pounds in 2001. According to the United States customs officers, the volume of Vietnamese basa fish and tra fish imported in 2001 was 12 million pounds, i.e. about 2 percent of American market. VASEP argued that it was impossible for Vietnamese basa fish and tra fish, exported in such small quantities, to have such a large impact on the sale of channel catfish in the United States and to cause a decrease in its price.

The Vietnamese Government hired a law firm in the United States to contest these antidumping charges, and on 15 July 2002, a Vietnamese delegation went to the United States to negotiate an informal resolution to the dispute. On 19 July 2002, the United States International Trade Committee (ITC) conducted a hearing in Washington DC on the case in which, Vietnam's Ministry of Trade presented evidence to show that Vietnamese exports of basa fish and tra fish function according to market principles. During the hearing, the Vietnamese delegation presented the following arguments to show that there were no grounds for anti-dumping charges.

Firstly, it is easily seen that basa fish and tra fish rearing has had a long history in Vietnam and that these two kinds of fish have long been the source of livelihoods for the people in Mekong River Delta. The rearing of basa fish and tra fish is thus not a newly introduced activity, developed with a view to exporting these species in the form of frozen fillet into the United States market to compete with American channel catfish, belonging to the family *Ictaluridae.*

Secondly, basa fish and tra fish production in Vietnam does not depend entirely on the United States market. The petitioners misunderstood the situation in Vietnam when they suggested that basa fish and tra fish have no domestic market . These two types of fish are the favorite protein food of the Vietnamese population. The high consumption of fresh basa fish and tra fish in Vietnam can be considered as a means for assessing the effectiveness of the exports of these fish products into the markets of the United States and the European Union.

Thirdly, CFA is wrong in considering basa fish and tra fish as belonging to the same group as channel catfish and as providing an alternative to this product. CFA had earlier affirmed that "what is called 'catfish' imported from Vietnam is totally not catfish, not even from the same species."

Fourthly, there is no serious damage caused by imported basa fish and tra fish because the volume of these imports only account for 2 percent of the United States market in 2001. This was small in comparison to the huge domestic volume of channel catfish and did not directly compete in pricing with this domestic species.

Fifthly, there is no threat to American catfish in future from Vietnamese exports since producers in Vietnam have various market alternatives such as EU, China, and Japan. The volume of Vietnamese exports to these markets has shown a remarkable growth recently.

On 14 August 2002, the United States DOC published a Notice announcing an inquiry into petitioner's allegation and requesting comments from the public by 4 September 2002 on Vietnam's economic reforms. This deadline was extended to 2 October 2002 as per a request from the Government of Vietnam. Rebuttal comments were accepted till 15 October 2002. In the week of 16 September, ITC delegations began their investigations on the dumping charges against Vietnam. A request for a hearing was made on the behalf of VASEP on 2 October 2002, but it was withdrawn on 15 October.

While the accuser in the case is a single organization, namely CFA, there were a number of defendants, including the following: The American Chamber of Commerce in Vietnam, American Standard Vietnam Inc.; Cargill, Inc.; Chinfon Global Company; Citigroup; Unilever; The US-Asean Business Council, Inc.; The US-Vietnam Trade Council; Vedan Vietnam Enterprise Corporation, Ltd., and The Vietnam Chamber of Commerce and Industry (VCCI).

The United States DOC initiated an inquiry into Vietnam's economic reforms. In assessing whether Vietnam was a non-market economy, DOC used six criteria: (a) the extent to which the currency of Vietnam is convertible into the currency of other countries, (b) the extent to which wage rates in Vietnam are determined by free bargaining between labour and management, (c) the extent to which joint ventures or other investments by firms or other countries are permitted in Vietnam, (d) the extent of government ownership or control of the means of production in Vietnam, (e) the extent of government control over the allocation of resources and over the price and output decisions of enterprises in Vietnam, and (f) such other factors as the administering authority considers appropriate.

On 30 September 2002, a United States DOC delegation travelled to Vietnam to investigate the allegation of dumping. The main objective of this delegation was to instruct Vietnamese enterprises to provide accurate responses to the investigation questionnaires sent by the DOC. After working with the United States Embassy in Vietnam, MOFI, the

Ministry of Trade and VASEP, the delegation decided to work with 4 big Vietnamese processing and exporting enterprises - namely, Agifish, Navifishco, Cataco and Vinh Hoan Co.

The delegation investigated the Vietnamese legal system, its policies on economic development and trade, especially some aspects of the market economy in Vietnam, the country's regulations on the use of land, water surface and aquatic resources, its policies on natural resources and environment conservation, and its policies on private businesses and trade unions. The Vietnamese Government and enterprises pointed out that Vietnam's status as a market economy was one of the prerequisites of the Bilateral Trade Agreement (BTA) signed less than one year ago between the United States and Vietnam.

After an analysis regarding the nature of Vietnam's economy, on 8 November 2002, the Office of Policy of DOC's Import Administration recommended that DOC treat Vietnam as a non-market economy (NME) for the purposes of anti-dumping and countervailing duty proceedings, effective on 1 July 2001. They determined that Vietnam has not successfully made its transition to a market economy and that the anti-dumping charges were substantiated. It was proposed that India be used as the reference country to assess a new tariff rate for Vietnamese products, and that the proposed tariff hike could be as high as 191 percent.

On 16 December 2002, the representatives of the United States DOC had discussions with the representatives of MOFI on the procedure of the anti-dumping investigations on imports of basa fish and tra fish. The Vietnamese government denied the charges of anti-dumping. VASEP also confirmed that the fishers, processors, service providers and exporters did not receive subsidies from the Vietnamese Government. They finance their operations through loans from banks or from local moneylenders at market interest rates. Many fishing households borrow funds from local private sources at interest rates as high as 3-4 percent per month since they need a steady supply of cash to keep the production going. Many fishers and household processing enterprises have taken large loans to expand their operations and capacity, in the hope that they can increase their incomes and improve their standards of living. A sudden decline in fish trade would render it impossible for them to repay their debts and would place severe financial and social stress on their families. Economic pressure on Vietnamese fishermen had already mounted with the reduction in export volumes in the last quarter of 2001, when the United States banned the use of the catfish label on Vietnamese fish products.

MOFI and VASEP suggested selecting Bangladesh instead of India as a reference country for the investigation, since Bangladesh is similar to Vietnam, both in its geography and in its level of development. Moreover, like Vietnam, Bangladesh also raised basa fish and tra fish. MOFI and VASEP presented a number of reasons to explain why the price of catfish produced in Vietnam is lower than that produced in the United States:

- The Mekong River fishers have accumulated generations of knowledge and skills in increasing productivity with lower input costs.
- The natural conditions of the Mekong River are extremely favourable for raising basa fish and tra fish. Thanks to the favourable climatic conditions, fish can be raised throughout the year. The swift water currents keep the water well ventilated and help fishers to raise fish with high body weight.
- Fish raising is largely a family occupation and every member of the household is involved in some aspect of this activity, resulting in lower labour costs.

- Fishers have begun breeding new varieties that reproduce faster and can be harvested more quickly.

They also argued that the actual costs of raising and processing fish are not decisive factors in the pricing of exported fish products in the United States market. The importers in the United States agree to buy fish products at a certain price from Vietnamese exporters and add their own mark-ups in the United States market. The gains from competition among fish retailers in the United States do not go to the fishers and fish processors in Vietnam. They also argued that DOC should reconsider its determination of Vietnamese economy as an NME since this would affect not merely the basa and tra fish case, but the trade relationship between two countries.

On 20 December 2002, several senators in the United States sent their comments to DOC, pleading against the application of countervailing duties which impose punishment on basa fish and tra fish imported from Vietnam. In their letter, these senators demanded that DOC should try to ensure that all factors relative to this case have been carefully analysed before a decision is taken, arguing that "Vietnamese fish farmers, processors and exporters should not be punished just because their catfish products are successful in the United States market". A report from the United States Department of Agriculture (USDA) had pointed out that in the first seven months of 2002, the imported volume of tra fish and basa fish decreased by 37 perent as compared to the previous year, in which imports from Vietnam only accounted for a small ratio in this market. The senators argued that this indicated that the success of tra fish and basa fish was not caused by either dumping price or subsidy from their Government, but by the quality and reasonable price of these products in Vietnam. Therefore, according to these Senators, increasing the duties on imported fish from Vietnam as a punishment will damage the United States consumption market and contradict BTA signed in November 2001. The senators also warned that this lawsuit is taking place at a sensitive moment in the relations between the United States and Vietnam with the normalization of trade relationship between the two countries having begun just a year ago. This also happens to be a time when the United States Congress has come under increased pressure from the domestic business community on the issue of subsidies. Thus, the United States' punishment of Vietnamese basa fish and tra fish would be a negative example for multilateral trade, and against the principles of trade liberalization which the United States has advocated before the international community.

Until now, DOC has not taken a final decision on the petition submitted by CFA. However, from the catfish war and the way the United States authorities handled this case, the following lessons can be drawn:

1. The legal system in the United States is highly complicated, making it difficult for Vietnamese lawyers and producers to understand its nuances and implications. This raises the question as to how Vietnamese lawyers can defend their clients effectively by using such old legal instruments as the United States Tariff Act of 1930.

2. Vietnam is a developing country which is on its way to integration into global trade. The country has been in the process of gradually modifying its legal system to make it consistent with international regulations. The United States DOC based its investigations on Vietnam's current legal instruments which may be seen as inadequate, without taking into account the country's positive achievements in its transition to a market economy, and hastily concluded that Vietnam is an NME. It

is likely that Vietnam and other developing countries will meet similar difficulties in accessing new markets. Agricultural products imported into the United States market are likely to meet similar barriers.

3. In spite of their claims to fairness in trade disputes, the United States authorities have been biased in favour of domestic businesses and organizations, as demonstrated by their claim of the label "catfish" as a unique name for American channel fish, regardless of the fact that this name has been used for 2,500 species of fish in the world. This can also be seen in the DOCs determination of Vietnam as an NME, following CFA's arguments to this effect. CFA's arguments on dumping by Vietnamese exporters were also supported by DOC from the outset.

4. In trade disputes, exporters from developing countries who are identified as the defendants often do not have sufficient financial strength to engage in the legal battle or match the resources of the accusers. This considerably weakens their ability to take advantage of the procedures of dispute settlement.

2. Shrimp Importation Financing Fairness

The United States is the biggest importer of shrimp from Asian countries. Last year, the United States imported 28,500 tons of shrimp from Asia, 38 percent higher than in 2000 (20,600 tons). Imports from Asia accounted for 87.4 percent of the total consumed shrimp in the United States. Since 1996, the amount of shrimp imported into the American market increased by 52 percent, while the imports into Japanese market declined by 15 percent.

Whereas the overall consumption rate for aquaculture products has remained unchanged, shrimp consumption has shown a steady increase since the 1970s. Shrimp producers in 8 southern states of the United States have accused 16 shrimp-producing countries of dumping prices. However, the United States still needs to import shrimp, and this market continues to be the most attractive market in the world for shrimp.

Exporting shrimp to the United States market is not simple. It is likely to meet many obstacles, especially when the volume of exports increases. These difficulties can be environmental and social requirements or subsidies that the United States Government has on its domestic sectors, including anti-dumping laws, quality regulations and commodity controls.

Vietnam's seafood industry is currently facing a fresh round of dumping accusations from the United States, and its shrimp exports are under investigation. The crisis over these allegations has posed a serious threat to Vietnam's shrimp exports. A draft Bill named "Shrimp Importation Financing Fairness" has been presented before the United States House of Representatives demanding a virtual ban on financial aid from the American Government through United States Exim Bank and OPIC to several countries including India, China, Brazil, Ecuador, Indonesia, Thailand and Vietnam, until each of them drastically reduces their shrimp exports to the United States to 3 million pounds per month.

Congressman Ron Paul, who represents a Texas district along the Gulf Coast, introduced H.R. 5878 last month, calling on the Government to place an indefinite moratorium on all regulations affecting shrimp farmers on the gulf coast. Paul has consistently attacked

NMFS for requiring turtle excluder devices on shrimp trawls, even though this has been the settled practice in the United States for several years. His legislation would place an indefinite moratorium on all "future restrictive regulations on the shrimp raising industry."

As in the case of other unreasonable drafts on the label of "catfish" and petition of CFA about anti-dumping in basa fish and tra fish trade, the above-mentioned draft also demonstrates that when faced with tough competition, enterprises in the United States often mobilize legal instruments to carry out subsidy policies. For instance, American Congress has recently approved the spending of US$ 170 billion to subsidize the agricultural products in the United States over the next 10 years.

3. Zero-tolerance of Residual Antibiotics

In recent years, in order to export aquaculture products into EU, the United States and other markets, Vietnam has continuously upgraded the quality of its management systems, modernized the equipment used and organized training courses for technicians of administrative agencies and businesses. EU authorities have certified that 68 Vietnamese businesses have satisfied hygienic standards and food safety. Vietnam has conducted effective national programmes in monitoring residual toxic chemicals and antibiotics in seafood and cultured products, and has announced the results of these to EU and United States authorities on a regular basis.

In 2001, EU decided to examine 100 percent of shrimp products imported from China, Thailand, Vietnam, Indonesia and other countries because they discovered residual antibiotics chloramphenicol (CAP) and nitrofurans (NF) in some products. EU authorities have initiated a food-safety policy called "zero tolerance" towards chloramphenicol, nitrofuran and other antibiotics. However, there is no scientific evidence to show that a very low content of residue - as low as one billionth - of antibiotics can be harmful to the health of the consumers. EU has stipulated that the residue in food should be 0.3ppb or even 0.7ppb. It is difficult for exporters, including those from EU, to achieve such accurate results in the products they export.

These strict food-safety regulations have enabled EU member countries to destroy all imported lots which contain residual antibiotics of chloramphenicol and nitrofurans. Even worse, EU authorities have destroyed several lots of imported shrimps from Vietnam and other Asian countries while these products were still in storehouses. Many of these were destroyed without advance notice, and not in the presence of the owners.

These regulations have caused serious difficulties for exporters of fisheries from Vietnam and other Asian countries. In 2001, EU banned the import of shrimp from China and, on account of residual chloramphenicol in shrimp from Indonesia, shrimp export from this country into EU has decreased by 64 percent. The existence of nitrofurans in shrimp from Thailand caused severe restrictions to be placed on shrimp export from this country into EU. The export turnover from Vietnam into EU in the first 6 months of 2002 registered an 87 percent decrease in comparison to the year 2001. The issue of residual antibiotics in shrimp continues to be a cause for concern for exporting countries.

Meanwhile, many products manufactured in EU and sold in many Asian countries have been discovered to contain residual antibiotic chloramphenicol and other toxins. China has

demolished 2 containers of saucisses infected with antibiotics from the Netherlands. It was also discovered that two types of powdered milk from the Netherlands - Protifar and Frisolac 2 - contain residual chloramphenicol of about 0.545 ppb and 0.303 ppb respectively. These products are being sold in Asian countries. Current regulations on food safety in some member countries of the EU still permit the use of antibiotics in livestock husbandry and the export of beef containing residual chloramphenicol of more than 10 ppb.

EU policies regarding the export of domestic products to developing countries on the one hand and imports from developing countries to EU on the other can be thus seen as following two different sets of standards. The EU restrictions on import mentioned above can be considered as a non-tariff barrier that obstructs the export of seafoods and agricultural products from Asian countries, including Vietnam. EU's "zero-tolerance" policy and its implementation by EU authorities have clearly resulted in damage to the trade between EU and Asian countries as well as to the economic development of Asian countries.

On 20 September 2002, EU's Veterinary committee decided to abrogate the compulsory examination policy of 100 percent of shrimps imported from Vietnam and some other countries on account of residual antibiotics. India and some other countries continue to be targeted by this trade barrier. The abrogation has been the result of efforts by Vietnam Government, MOFI, relevant Ministries and enterprises who implemented a series of measures such as banning the use of chemicals and antibiotics and carrying out a thorough examination the entire production process: from aquaculture, capture, storage, and transport to processing, destroying feed, and medicaments containing CAP and NF.

In recent years, aquaculture production, especially from Vietnam, has steadily increased, attracting the attention of several big importers in the world market such as Costco, Sipco (United States), Nichirei (Japan), and Coop (Switzerland). These corporations require Vietnam to develop centralized aquaculture production zones which meet the high international standards on food safety and hygiene, and allow the importing country to trace the origin of products.

The increase in the import of aquaculture products by western countries, the prevalence of non-tariff and technical barriers in their markets, and the rapid development of aquaculture in many other countries, show that Vietnamese aquaculture products will certainly face sharp competition in the world market. Vietnamese exporters would need to pay closer attention to the changes in regulations in all markets in order to avoid problems such as residual antibiotics in exported seafood.

4. The Establishment of ASEAN Aquaculture Federation

ASEAN countries possess favourable natural conditions for developing fisheries. However, due to sharp competition among one another, the fishers and the exporters in ASEAN countries fail to derive the full benefit from trade in their products. Furthermore, they also need to bear all risks caused by natural disasters and the unfavorable conditions in their markets. In the meanwhile, their products have brought tremendous profits to seafood businesses in importing countries.

Since September 2001, the regional production and export of shrimps entered a crisis due to EU's "zero-tolerance" policy against antibiotics such as chloramphenical and

nitrofurans. Thousands of containers valued at millions of dollars were blocked in custody at importing ports, strictly examined and returned, or even destroyed solely on the basis of the results of unilateral examination from EU countries. In the first 6 months of 2002, Thai shrimp exports into EU decreased by 90 percent as compared to 2001. Similarly, Vietnamese shrimp exports into EU decreased by 84 percent in the same period.

Greater co-ordination between Asian seafood exporting countries, reduced internal competition, and increased co-operation in dealing with importing countries to protect common interests - these are central to a possible solution to the problem discussed above. The representatives of aquaculture and seafood exporting associations of the 5 ASEAN countries which have the biggest aquaculture production including Indonesia, Malaysia, Thailand, Philippines and Vietnam (Vietnam Association of seafood exporters and producers (VASEP)) have established the ASEAN Aquaculture Federation (AAF) with the following objectives:

1. To promote the sustainable development of aquaculture in the ASEAN region.
2. To assist aquaculture in ASEAN countries in order to respond to food security and exports.
3. To implement activities that support the long-term interests of aquaculture in ASEAN countries.

AAF is also a link between ASEAN countries on the one hand and other countries in Asia such as China and India in facilitating greater co-operation in seafood export. Soon after it was established, AAF held consultations with the Chinese authorities on food exportation. China shared AAF's concerns regarding EU's "zero-tolerance" policy towards residual antibiotics and considered it a non-tariff barrier, which has no scientific basis and does not comply with CODEX principles.

AAF has also sent letters to representatives of European Commission (EC) in ASEAN countries arguing that EC's decision, based on the single result of an examination of residual antibiotics was unrepeatable and unreliable due to the setting up of the standard line below 1ppb. AAF considered as illegal EU's practice of eliminating imported shrimp while still in the port without being witnessed by its owners. AAF requested that EC should show respect to its trading partners, and positively co-operate with the exporting countries to find appropriate alternative solutions to the problem of residual antibiotics.

In addition to facilitating co-operation among country governments, organizations such as AAF can enhance co-operation among seafood exporters in order to protect their common interests.

IV. TRADE AND ENVIRONMENT ISSUES

Vietnam is among the ten biggest exporters of aquaculture products to world markets. Capture fisheries and aquaculture have become important components of rural sector activity in the country. There is a great need for Vietnam to equip itself with new perspectives and approaches, and to ensure that its production methods do not conflict with the sustainability of the environment.

A. The Impact of Multilateral Environmental Agreements on Fisheries Trade

As in other countries, the relationship between the environment and the liberalization of trade in Vietnam is complicated. The country may encounter some problems in implementing international treaties or multilateral environmental agreements (MEAs). The Vietnamese Government, and particularly MOFI, have attempted to assess the impact of MEAs on the export of aquatic products. A number of urgent measures are required from the Vietnamese Government, including efforts to raise the awareness of fishers and economic incentives. International cooperation can also play an important role in facilitating the application of MEAs on Vietnam's fisheries trade.

At the international level, the problem of excessive fishing capacity and the need to control fishing effort have been recognized in a number of MEAs such as the Rome Consensus on World Fisheries, the FAO Code of Conduct for Responsible Fisheries, the United Nations Agreement on Straddling Fish Stocks and Highly Migratory Fish Stocks, and the Kyoto Declaration. FAO's recommendation of a reduction in fishing capacity between 25 and 53 per cent, for example, will certainly have an impact on the situation of overfishing by small-scale fishing boats in the Vietnamese near-shore waters.

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is one of the most important MEAs in terms of its impact on fisheries trade. The Convention has declared as illegal the trade in scarce and valuable aquatic species on its Red List. Vietnam is one of signatories of CITES, and Vietnamese companies will have to refrain from exporting any endangered species that exist in Vietnamese waters. The Twelfth Conference of Parties of CITES in November 2002 endorsed a plan to protect seahorses from overharvesting through the strict regulation of international trade. The Conference has listed a number of aquatic species in Appendices to the Convention. Any international shipment of these species must be accompanied by an export permit certifying that they were legally harvested in a way that is not detrimental to the survival of the species.

The fisheries policies of Vietnam do not contain specific provisions on environmental protection like those in many other countries. Bans and requirements of export permit for seafoods in Vietnam have aimed primarily at protecting people's health and food safety. Although some of these requirements relate to environmental protection as well, these have not been spelt out with adequate specificity. Furthermore, these measures are far too inadequate in comparison with the lists of environment-unfriendly products listed in multilateral agreements on environmental protection or in other relevant documents by international organizations such as the United Nations, FAO and the WHO. It appears that Vietnam has not yet formulated appropriate measures for the implementation of MEAs in aquatic resource conservation and management.

B. MEAs and WTO Obligations in the Fisheries Sector

The multilateral trade regime of WTO includes 46 agreements and decisions which pertain to almost all aspects of world trade, including environment-related issues. Vietnam is in the process of accession to the WTO, which means that the country will have to comply with the rules of the WTO. This may have crucial implications for Vietnamese fisheries, which consist mainly of the artisanal and small-scale sector. The fisheries sector in Vietnam is currently faced with the critical problem of depletion of fish stock, and the legal system that governs the sector is inadequately developed.

C. Eco-labelling

Labelling - especially eco-labelling - is a new concept for the Vietnam fisheries sector. However, eco-labels will become increasingly important as Vietnam emerges as a major exporter of fisheries products to world markets. As a result of successful campaigning by environmental groups, the consumers of fish and fish products in several developed countries have begun showing an increasing preference for fish and fish products that are produced under better conservation and management regimes. In the near future, international markets are likely to demand eco-labelled or, in other words, "fairly traded" fish products from Vietnam.

Over the last decade, some countries have developed systems of environmental labelling for their products. Currently a concern for producers, importers and exporters from several countries in the world, eco-labelling has received attention from the WTO during its recent trade and environment discussions on account of its potential impact on international trade as a "green" non-tariff barrier.

The experience of European Eco-Labelling Network demonstrates how national and regional standards can create links between trade and environment. Eco-labelled products need to meet the minimum requirements specified by EU's Eco-Labelling Network. If this Network is strictly implemented, it may hinder exports from almost all manufacturers in developing countries. These manufacturers will have to face serious difficulties in order to meet the EU standards, since they employ technologies that are suitable for the level of scientific and technological development in their country. The examination of products from non-European companies to determine whether they meet the eco-labelling standards in Europe will place an additional burden on these companies.

In the light of the growing interest in the linkages between environmental standards and international trade, one may view eco-labelling either as an opportunity or as a bottleneck for exports of fish and fish products from Vietnam. Environmental standards could complement the standards for food safety, which are strictly adhered to in the United States, European Union and Japan. Environment standards and those for food safety could address the two major external concerns regarding fish production and consumption. One can conceive of a situation where a fish product imported from Vietnam and sold in EU markets may carry two logos - one for food safety, and the other for its origin in a sustainable fishery.

A fisheries sector with improved management and better organization may be able to take advantage of important new marketing opportunities in international trade. It is necessary for the Vietnamese Government, MOFI, fishing organizations and other concerned groups to engage actively with new developments related to the environment, such as eco-labelling.

D. Food Safety and HACCP in Fisheries Trade

The biggest challenge faced by Vietnamese fisheries in relation to market access, especially to markets in the United States and EU, concerns food safety, rather than environment-related issues. Canada, EU and the United States introduced regulations based on the HACCP system in the 1990s. In 1997, the HACCP system was incorporated into the WHO/FAO Codex Alimentarius and it became the basic instrument in international trade disputes under the WTO Agreement on the Application of Sanitary and Phytosanitary (SPS) Measures. Vietnam has not made the HACCP system obligatory in its

domestic markets. Vietnamese fish-processing and exporting firms see HACCP primarily as a non-tariff barrier to trade with developed countries. They comply with it only to the extent that they can export their fish products to the developed-country markets.

In the near future, Vietnam would need to devise standards and implement measures that can contribute to improving the status of exploited fish stocks as well as the quality of life of fishers and domestic consumers in the country. The upgradation of national standards to internationally acceptable levels will enable Vietnam to take better advantage of seafood export markets.

E. Certification Requirements

Like eco-labelling, certification is a relatively new concept for Vietnamese fisheries. At present, near-shore fisheries in Vietnam consists mostly of a very large number of small-scale fishing boats whose operations are not managed through an effective legal or regulatory mechanism. Recently, fisheries authorities in Vietnam have initiated attempts to comply with the certification requirements of the seafood-importing markets. They have begun introducing the fisheries sector to concepts related to sustainable fisheries that figure in certification requirements. The Marine Stewardship Council and ISO 14000 are particularly relevant in this context.

1. Marine Stewardship Council

The Marine Stewardship Council (MSC), launched in early 1996, was set up mainly to design and implement market-driven incentives for sustainable fisheries, which would translate into responsible, environmentally appropriate, socially beneficial and economically viable fisheries practices that maintain the biodiversity, productivity and ecological processes of the marine environment.

The MSC accreditation scheme was established in mid-1998 and the first seafood products certified by the MSC were launched in early March 2000. The launcher of MSC, Unilever, has already made it known publicly that only fish carrying the MSC logo will be sold through its outlets by the year 2005.

The Vietnamese fisheries trade companies should be interested in MSC certification because the MSC logo will help them in enhancing their market access and in improving their public image. There are many reasons for supporting the MSC initiative, including (a) its potential for reducing tariffs on fish and fish products in the major markets, (b) its potential to increase the market share of Vietnamese exports; and (c) the opportunity it provides for improving the general public's perception of Vietnamese fisheries. However, MSC may well become a non-tariff trade barrier to fish exports from Vietnam and other developing countries.

2. ISO 14000

Demands on environmental standards can pertain to the products or to production processes. Customers and importers from developed countries often demand that developing-country suppliers should abide by specific environmental standards or have an Environmental Management System (EMS) in place. ISO 14000 is an international

standard that can respond effectively to these demands. The ISO 14000 series includes international standards developed on the basis of negotiations and therefore helps to harmonize the views of different countries regarding eco-labelling, environmental management and life-cycle assessment.

There is no clear evidence that importing countries will require the exporters to obtain ISO 14000 certification. However, this has been suggested by discussions in the current international environmental movement and the policies of several developed countries. The tendency to use EMSs or eco-labelling standards as non-tariff barriers may well emerge in the future as a problem in the major markets or fish products. Vietnamese exporters may find it difficult to overcome such barriers in the coming years.

It is difficult to estimate the potential impacts of ISO 14000 on the export of fish products from Vietnam. Some Vietnamese companies can find in ISO 14000 a means to strengthen their export competitiveness and their foothold in the market, even when there is no major pressure from foreign customers. ISO 14000 can be used potentially as a marketing tool in both domestic and international markets. Companies from developing countries may use an ISO 14000 EMS certification to meet the requirements of foreign customers, community pressures, policies or legal requirements. However, ISO 14000 can be a non-tariff barrier in trade if the certification process is difficult and costly. Thus, ISO 14000 may help in removing trade barriers, although it may also function as a potential trade barrier.

V. THE IMPACT OF VIETNAMESE FISHERIES ON THE MARINE ENVIRONMENT

In Vietnam, capture fisheries primarily involves coastal and offshore fishing. Its production is estimated at 1,350,000 tons in 2002, dominated by coastal and near-shore capture which accounts for 66.2 percent (approximately 892,243.60 tons). Coastal capture has been the traditional occupation of Vietnamese fishers. Thanks to the country's favourable location facing the sea in its eastern and southern borders, the poorer sections of the coastal population in Vietnam have, for generations, depended on marine resources as a source of food and income. Traditionally, they have used simple fishing techniques such as trammels, casting nets and shield nets. Due to the lack of capital, they find it impossible to equip themselves with high-capacity fishing boats and technologically sophisticated fishing equipments. This prevents them from operating in new fishing grounds offshore, limiting them to the exploitation of coastal resources. Fishing vessels are large in number but small in capacity, with most of them working in the sea area of less than 50m depth. As a result, the total catch, mainly from coastal fishing grounds, amounts to no more than 50 percent of the country's available marine resources. This figure is low in comparison to those for other countries in South-East Asia and North-East Asia. The overexploitation of fishing grounds in coastal areas has led to a depletion of marine resources.

Offshore catch production in Vietnam is estimated to reach 456,000 tons in 2001, registering an increase of 8.57 percent as compared to 2000. Nearly 30 percent of this is exported. Offshore catch accounts for 33.80 percent of the total fishing production in the country.

There is no distant-water fleet in Vietnam as the Government has not signed any bilateral or multilateral agreements with other countries. However, given the current global trends in fisheries, Vietnam is likely to evolve policies of international cooperation in order to enhance its production and trade in world markets.

A. The Impact of Fisheries

It has been widely acknowledged that the problems of overfishing and overcapacity pose the biggest threat to the sustainability of the world's fisheries resources. Large vessels employing sophisticated technology for the detection of fishing grounds and fish capture have been responsible for the huge increase of fish production in the last decades. As a result, several important species have been subjected to overfishing. The catches of important commercial stocks have declined while marine fish production has increased dramatically. FAO's investigations in 1994 indicate that approximately 60 percent of the world's major fish resources are either mature (at the high exploitation level) and senescent (showing declining yields). They are in urgent need of management action in order to halt the increase in fishing capacity and to rehabilitate the damaged marine resources.

Coastal, inshore waters are highly productive and provide vital spawning and breeding grounds for fish. About two-thirds of all commercially valuable fish species spend the first, and most vulnerable, stages of their lives in these waters. In particular, coastal habitats and ecosystems, such as mangroves, mudflats, bays, wetlands, estuaries, salt marshes, sea grass and seaweed beds and coral reefs, are known to be highly productive. Due to their lack of knowledge of offshore fishing techniques and to their inability to take advantage of the Government's credit programmes, the poor Vietnamese fishers turn to exploiting near-shore and coastal marine resources. As mentioned earlier, coastal and near-shore fisheries production accounted for 66.20 percent of national capture in 2002. Capture production in these marine areas has been consistently higher than offshore capture for several years. Moreover, about 80 percent of coastal households are poor and depend on coastal marine resources. Due to their lack of access to agricultural or aquacultural land, they are compelled to resort to near-shore and coastal fishing. This has caused heavy pressure on the coastal environment and resources. Fishing grounds are over-exploited and coastal habitats rapidly degraded. As a result, fishing yields have started to decline rapidly. In order to maintain their fishing production, coastal fishers have begun using a variety of illegal fishing methods, exacerbating the threat to Vietnam's coastal environment and resources.

In recent years, the introduction of devastating new fishing technologies by private and state-controlled firms has seriously disrupted the traditional fishing methods used by artisanal fishers. Trawlers, for example, have caused major devastation in the benthic marine environment and resources in coastal areas and have intensified the pressure on coastal fish stocks. In Indonesia, therefore, the trawlers have been banned completely since 1984. The most serious problems of destructive fishing methods are the use of explosives and chemicals such as potassium and cyanide. These destructive methods have been used not only in Vietnam, but also in Indonesia and the Philippines. Their use is rather limited in Thailand and Malaysia. Illegal gear such as high-intensity lights and fine mesh nets are also widely used in many places in coastal areas in Vietnam. These nonselective fishing practices also damage the environment and the local fish stock. In tropical reefs, the use of cyanide poison is a growing threat to marine species and their habitat. Over time, such practices can kill most of reef organism and damage the reef

habitat. These methods destroy not only the coral reefs and habitats of the valued species but also their spawning grounds.

Beside illegal fishing methods and overfishing, pollution from fishing vessels also affects fish that spend at least part of their lives in coastal water habitats. Spilled oil from about 79,000 fishing vessels, most of which are old, can have direct and indirect lethal and sublethal effects on eggs and juveniles of species as well as on adults. The more important species of fish may be tainted and the fishing gear may be fouled by oil.

B. The Impact of Aquaculture

Aquaculture is seen as a major source of aquatic products for export as well as for consumption in Vietnam, especially since the fisheries capture production has begun declining. The Government of Vietnam has devised a plan for the development of aquaculture through the "Aquaculture from 1999-2010."

However, traditional aquaculture practices, as well as new, devastating practices in aquaculture such as shrimp farming, can also result in heavy damage to coastal environment. In many coastal locations, there is a big loss of mangrove forests due to their conversion to shrimp ponds. Mangrove forests have disappeared almost entirely, and the land has been cleared along the coastline and in lagoons for the construction of large shrimp-farming ponds. This explains why most of the poor fishers do not have access to land for agricultural and aquacultural farming.

In conclusion, the environmental impact of fisheries in Vietnam has been alarming. The government has been concerned not only with environmental injuries, but also with economic loss, as the fisheries sector is the third most important player in Vietnamese economy (after oil and rice). Moreover, fisheries provide more than half of the animal protein needs in the country. It provides employment for approximately 5 million poor people, in addition to substantial foreign currency earnings through export. Awareness of marine resources conservation is generally low in Vietnam, despite the Government's efforts to control fishing activities. Moreover, fishers are unable to participate in the management of their resources even as they recognize the twin threats of overexploitation and habitat degradation. Education and empowerment are essential if Vietnam is to manage its marine resources sustainably.

VI. SUSTAINABLE FISHERIES AND HUMAN DEVELOPMENT: THE ROLE OF THE CIVIL SOCIETY

The following table schematically presents the principal roles of major actors in the civil society in Vietnam in ensuring sustainable fisheries and human development. The potential contributions and benefits for each of these actors is indicated below:

Actors	Benefits	Contributions
Fishers/farmers	Income Food	Giving up illegal catching methods Investing in offshore fishing

Ministry of Fisheries (MOFI)	Taxation International trade in fisheries products Poverty alleviation programmes in aquaculture	Developing aquaculture Promoting offshore fishery Sustainable policy making
Research Institutes	Sustainable fishery policy	The provision of consultancy to the Ministry of Fishery
Fisheries trade enterprises	Trade volume/turnover Promotion of Vietnamese fisheries products in world markets	Looking for markets for fishery products Pressuring fishers on environment regulations/methods Pressuring Ministry to adopt sustainable a fisheries policy
Non-governmental organizations	Exploring sustainable fisheries Promoting trade volume	Consulting with the Ministry in policy-making Protecting the rights of farmers and trade enterprises.

A. Fishers and Farmers

Fishing enterprises in Vietnam can be divided into the private sector and the state-sponsored sector. While state fishing enterprises outnumbered the private ones in the past, the number of state fishing enterprises has declined in recent years due to their low productivity. At present, the fisheries sector in Vietnam consists largely of private-sector enterprises and the state sector accounts for only 10 percent of the total number of firms. Therefore this section considers private and state enterprises as one actor. About 3 million people work in the fisheries sector in Vietnam. As we saw earlier, fish is the main source of food for this section of the population, providing them with protein and income. Most of Vietnamese fishers catch fish in the coastal and near-shore sea areas using traditional techniques since their capacity to engage in offshore fishing is restricted due to the lack of capital, big vessels and adequate modernized equipment. Only a small number of big private firms – numbering no more than 6500 out of a total of 79,000 fishing boats - engage in offshore fishing in Vietnam.

In order to maintain their catching yields in the overfished coastal areas, Vietnamese fishers have been using various illegal fishing methods such as explosives, chemicals, trawlers, fine mesh nets, and intensity lights. This has further exacerbated the situation of overexploitation and resulted in the exhaustion of fishery resources in coastal, nearshore areas.

Approximately 2 million people are involved in aquaculture in Vietnam. Unsuccessful fishers have also turned towards aquaculture for better returns by improving and diversifying production forms and techniques. Basa and tra fish rearing has developed in the Mekong delta mainly thanks to the ability of fish farmers to adopt appropriate production methods and sell their products in international markets through exporting firms. However, the development of aquaculture - especially shrimp ponds - has also had negative impacts on the environment through the destruction of mangrove forests and soil

pollution. Raising the awareness of fish farmers regarding environment-friendly techniques and practices is crucial for the development of sustainable fisheries in Vietnam.

The activities of fishers and fish farmers have a direct impact on the marine and coastal environment, and they have a decisive role to play in fostering sustainable fisheries in Vietnam. However, given the present situation of depleting resources, it is not easy for fishers to change their methods of catching fish. One possible solution is to develop offshore fishing and turn to new aquatic sources. However, this can be done only by big state or private fishing companies as this involves high-capacity boats and modern technology and equipment for communication, buoys, navigational security and fishing. Some of the Vietnamese Government's credit programmes have unsuccessfully tried to support poor fishers to build offshore fishing boats. Fishers could not repay their loans on account of inadequate profits. Most of the credit programmes to develop offshore fishing in the Central provinces have stopped due to this problem. In the province of Thanh Hoa, the offshore fleets of fishers' cooperatives have become bankrupt because the fishers lacked adequate knowledge of offshore fishing techniques.

Lack of adequate returns from environment-friendly fishing methods and the inability to make efficient use of credit facilities mean that the poorer, small-scale fishers are likely to continue with their traditional and illegal fishing methods. This problem can be addressed effectively only through action by the fishing community. They need to be provided increased support through more appropriate, long-term strategies by the Government, in the form of long-term credit programmes, appropriate technology for offshore water fishing, and educational programmes on the protection of the marine environment.

As small-size fishing boats provide more employment than big ones, they can be seen as appropriate in the situation of poor fishers in developing countries such as Vietnam. Small boats can be equipped with modern instruments for detecting fishing grounds and catching fish. It has been estimated by FAO that for every full-time fisher in the small-scale sub-sector, additional employment for about one to three persons is generated in the fisheries sector.

B. The Ministry of Fisheries

The Ministry of Fisheries (MOFI) is in charge of the management of fisheries and aquaculture production activities in Vietnam. It plays the most vital role in developing sustainable fisheries in Vietnam. It is responsible for making appropriate long-term policies, with the support of consultancy from other research institutes and NGOs. Its primary aims are to boost fisheries production and exported volumes while preserving Vietnam's marine resources and supporting sustainable fisheries in the country. With these objectives, MOFI has offered credit support to Vietnamese fishers since 1993 to develop distant-water fleets. It has also restricted the building of small boats operating in coastal sea areas, initiated training programmes for captains and chief mechanics for distant-water capture, and sought technical advise on sustainable fisheries from foreign experts. However, these efforts have been at an initial stage, and MOFI is still exploring more appropriate strategies to make Vietnamese fisheries sustainable, to increase export production and to enhance its positive impact on human development.

The credit programmes initiated by MOFI have so far not resulted in positive outcomes because most of the fishers did not succeed in their offshore fishing ventures and could not

repay their loans. Credit programmes need to be consolidated in order to become long-term programmes which can provide sustained support to poor fishers in the coming years.

Training and education are essential as well. MOFI needs to organize more training courses through local communities for local fishers. In the training courses, basic knowledge and techniques in nearshore, offshore and distant-water fishing need to be imparted. MOFI has organized some training courses on distant-water fishing for Government officials in the past. However, it is poor fishers who constitute the major part of the fishing sector in Vietnam, and MOFI needs to target its training programmes at this group.

Another measure for the preservation of coastal marine resources is the development of aquaculture, which has proved to be a powerful alternative to fishery production. MOFI has carried out eco-aquaculture programmes in order to enable Vietnamese aquacultural products to enter foreign markets. Policies to examine and monitor production processes from catching and storing to transportation and processing have been developed. As mentioned earlier, the Vietnamese Government is has also tried to integrate the development of aquaculture to its overall poverty alleviation programme, through its project on Sustainable Aquaculture for Poverty Alleviation (SAPA).

There is a need to disseminate information among local fishers regarding the marine environment, its value for human life and the long-term economic benefits of its preservation. MOFI might wish to organize training programmes on these topics through local communities, with the aid of aquacultural and environmental NGOs and state agencies This would function as a long-term strategy for sustainable development in general, and sustainable fishery in particular.

Although many of the initiatives mentioned above have been occasionally undertaken in the past, MOFI needs to formulate specific plans and long-term strategies for the development of distant-water fishing and for creating a sustainable fisheries sector in Vietnam. These may include the following objectives:

- Study and apply WTO's environment-related regulations, such as the stipulations of the SPS Agreement and technical standards, in Vietnam's fisheries sector in order to ensure regulatory consistency with WTO rules.
- Establish better co-ordination in resource conservation and management between fishers, state and private businesses, fishery and aquaculture research institutes and environmental agencies;
- Participate in international conventions on environment and bring Vietnam's national policies on fisheries trade into conformity with international regulations. Technical cooperation programmess with international environmental agencies will be useful for ensuring the effective adoption of provisions in multilateral environment agreements (MEAs) into Vietnam fisheries policies;
- Compile and disseminate information on the WTO and MEAs on trade and environment among all the actors concerned, especially those involved in sustainable fisheries. This would enhance awareness regarding production and trade in seafood detrimental to the environment and possible solutions to these problems, and enable the development of appropriate measures .
- Give priority to and encourage investment in infrastructure for fisheries development;

- Provide support to fishers in order to improve fisheries and aquaculture production, prevent resource degradation and gradually shift to environment-friendly production methods.
- Assist seafood processing enterprises to readjust their structure and progressively move towards environmentally clean production techniques. ISO14000 certification may be popularized among all seafood processing and exporting firms and eco-labels may be developed for seafood products. Once again, technical cooperation programmes with international organizations may help in ensuring effectiveness and consistency with international rules.
- Broaden contacts with agencies concerned with standards and criteria in developed countries in order to update information on the environmental criteria and requirements in various national and international environmental codes and conventions. This would enable Vietnam's fisheries sector, especially its export firms, to upgrade their production technology to meet these criteria.

C. Research Institutes

Institutes of fisheries research in Vietnam are mostly state-owned, belonging to MOFI or to the Universities. They include the Seafood Research Institute at Hai phong, the Seafood Research Center at Nha trang, two Aquaculture Research Institutes at Hanoi and HCMC respectively, and the Fisheries Planning and Economics Research Institute at Hanoi**.** These institutes provide support to MOFI in policy-making on fisheries capture and resource management, sustainable fisheries development, and aquaculture development plan. Institutes also conduct research on the search for new fishing grounds, effective catching methods and technologies. However, the institutes have had limited success mainly on account of the lack of adequate funds and technology. For instance, precise information is not easily available on potential fishing grounds, reserves and other marine resources, leading to inefficient management and planning in the fisheries sector. Research institutes would need to be revamped through better investment and technological upgradation.

D. Fisheries Trade Enterprises

A number of Vietnamese enterprises operate in seafood trade in Vietnam. They are involved in processing and exporting seafood products, identifying potential markets and promoting Vietnamese seafood products in world markets.

Given the current situation in international trade, export products need to meet stringent requirements regarding their quality to enter major markets such as the United States, European Union and Japan. Vietnam's fisheries trade enterprises (FTEs) can play an important role in influencing the production methods of fish farmers on the one hand and the policies of MOFI on the other. FTEs can persuade fishers and fish farmers to comply with regulations related to hygiene and environment stipulated by the WTO or by the importing countries. These include the proscription of illegal fishing measures such as explosives, chemical, trawling nets, and fine mesh nets. Compliance to these regulations has become increasingly important as large importers have become stricter in the examination of imported seafood products. FTEs can also encourage aquaculture production through promotion programmes among fish farmers or by setting up an appropriate pricing system. However, FTEs can also put pressure on farmers to reduce their prices so as to maximize their own profits. This would go against the poverty alleviation objectives of MOFI.

On the other hand, FTEs can also persuade MOFI to formulate sustainable policies in relation to the environment and to quality. They can provide effective support to MOFI in protecting the rights of Vietnamese fisheries products in international markets, as in the case of the dispute with the United States on Vietnamese exports in basa fish and tra fish.

E. Non-Governmental Organizations

So far, non-governmental organizations (NGOs) have not played an active role in the fisheries sector in Vietnam. Some NGOs such as Oxfam have worked in the area of aquaculture, as have some United Nations agencies such as UNDP and FAO. UNDP has initiated some projects on Capacity Building for Poverty Alleviation in the poorest provinces in Vietnam such as Tra Vinh, Ben Tre, and Thai Nguyen. These programmes provide support to the leading industries in the locality, including aquaculture.

In the past, some international NGOs operating in the field of poverty alleviation started programmes in Vietnam to promote aquaculture as a means of income generation in rural areas. These NGOs did not specialize in fisheries, but used aquaculture as a tool for poverty alleviation. Some international environmental NGOs also began operating in aquacultural production fields to introduce issues regarding environmental development. However, these operations have so far not been very effective.

The number of domestic NGOs working in the fisheries sector in Vietnam is very small. They include Vietnam Aquaculture Association (VAA), Vietnam Association of Fish Workers (VAFW) and Vietnam Association of Seafood Exporters and Producers (VASEP). These NGOs have close relations with MOFI and operate under its guidance and assistance. Governmental subsidies and international aid are made available to fishers through these NGOs. These NGOs also have the responsibility of ascertaining the financial status of fishers before they are considered eligible for credit from the capital subsidies programmes of the Government, since most of the state credit programmes do not involve collaterals from fishers.

In the field of fisheries trade, VASEP plays a prominent role in providing consultancy to MOFI on trade policies and decisions. VASEP is a non-profit organization whose primary goal is to support the business interests of Vietnam's fisheries sector, with information as well as customer recommendation. VASEP also represents Vietnamese business firms in negotiations with domestic ministries and international agencies on policies related to fisheries trade and on the protection of legal rights of the businesses. VASEP has attracted an increasing number of members as many trading enterprises can see the benefits of joining VASEP. On the investigations into basa fish and tra fish exports to the United States market and on the issue of zero-tolerance of chloramphenicol and nitrofurans residue in the EU market, VASEP has been a defender of Vietnamese aquaculture trade enterprises. VASEP also encourages Vietnamese trade enterprises to co-operate with one another in production and trade. VASEP has also become a member of ASEAN Aquaculture Federation (AAF).

Mass organizations in Vietnam such as the Vietnam Women's Union and the Vietnam Youth Union have participated in some projects on poverty alleviation in coastal fishing villages and rural areas. These organizations have actively participated in training and credit programmes conducted by MOFI and other agencies.

VII. HUMAN DEVELOPMENT AND TRADE LIBERALIZATION: ELEMENTS FOR A STRATEGY FOR NEGOTIATIONS ON FISHERIES

Vietnam is in the process of negotiating its accession to WTO. It should be noted that the fisheries sector is not covered by the WTO Agreement on Agriculture. During the Uruguay Round some developed countries attempted to exchange access to their markets for fish products in return for access for their fishing fleets to the territorial waters of developing countries. This was not accepted, and there was little tariff liberalization in the Uruguay Round in this sector. The unique characteristics of fisheries have led to proposals that the fish sector be dealt with in a separate agreement which would effectively address the issues of subsidies and environmental protection. Perhaps a sectoral approach may facilitate the inclusion of better market access, human development considerations, and environmental aspects in the agreement.

A. Inequities in Design and Application

Agreements designed with a view to enhancing industrialized-country production tend to establish trade rules that are favorable to the most powerful countries. These countries now enjoy a privileged position among members of the WTO, in the sense that they have continued to provide unlimited domestic support, despite their commitments to international agreements on the reduction of subsidies. According to OECD estimates, subsidies to producers in OECD member countries amounted to 40 percent of farm income in 1999, as in the mid-1980s.

The declared aim of the Uruguay Round was to reduce the effect of domestic support and other trade-distorting policies on international trade. However, in the major markets for Vietnamese fish exports such as EU, the United States and Japan, domestic support policies have continued to exist. For instance, Vietnam considers the Farm Security Act of 2002 (H.R.2646; now P.L.107-171) promulgated by President George Bush on 13 May 2002, relating to fish products export from Vietnam, as a domestic trade-distorting policy.

B. The Role of Fisheries in Developing Countries and Industrialized Countries

In Vietnam, fisheries have been a way of life for most of the poor population in coastal areas. Fisheries have become an increasingly important source of foreign currency earnings in Vietnam, reaching US$ 2 billion in 2002, making it the third-largest export earner, after oil and textiles. In contrast, fisheries constitute a very small portion of the export volume of industrialized countries.

On account of the vital role of fisheries in Vietnamese economy, even small fluctuations in the prices of fish products or in fisheries employment can have major socio-economic effects in Vietnam. The fisheries policies of the Government of Vietnam have been aimed primarily at raising fisheries productivity in the country. The policies of industrialized countries on the other hand are primarily aimed at securing parity of income between the small proportion of fish farmers and the fishers and workers in the industry.

C. The Ineffectiveness of International Trade Rules

The Agreements in the Uruguay Round established a variety of trade rules to address the issues of protection - e.g. measures concerning anti-dumping, subsidies and countervailing

measures, and safeguards - in order to ensure that protective measures would not be unfairly used against exports from other countries. However, some industrialized countries have continued to use their domestic legislation to prevent competitive fish product imports from other countries. For instance, the United States DOC used the criteria in the United States Tariff Act of 1930 to determine whether Vietnam was a non-market-economy. This determination can be used as the basis for the DOC's decision on the petition filed by CFA, regardless of the multilateral trade agreements in the WTO.

D. Technical Requirements on Fish Exports from Developing Countries

The export performance of Vietnam and other developing countries will be determined by their ability to meet the hygiene requirements and technical standards set by major market countries, such as EU, the United States and Japan. These countries have tended to impose stringent food-safety regulations, e.g. EU's "zero-tolerance" policy. Being a country at low level of growth, Vietnam would need to make substantial investments in each stage of fishing, handling, processing and transportation in order to meet these stringent requirements.

E. Agreement on Fisheries: Elements for Negotiations

A new multilateral agreement on fisheries trade within the framework of the WTO should provide requisite conditions to enable developing countries to enhance their domestic production and to protect the livelihoods of their poor fishers. The new rules should, in particular, enable such countries to promote aquaculture as a means of addressing the depletion of fish stocks along their coastal lines due to overfishing. They should also enable the distribution of fish products which function as the main source of income for low-income or resource-poor fishers. The use of non-tariff barriers, most often domestic subsidies or food-safety standards, should not be permitted to protect wealthy economies from developing-country imports.

An overall approach to negotiations on Vietnamese fisheries, with the aim of furthering human development in the context of trade liberation, could include the following elements:

1. Market Access

Vietnam, along with other developing countries, shares the objective of increasing its market access through lower tariffs. Vietnam would like to see large decreases in bound tariff rates and greater access for all fish products from developing countries. Some problems faced by Vietnamese fisheries could be addressed if Vietnam were a member of the WTO, but only if the country successfully resists pressures to accept discriminatory provisions in its terms of accession.

The non-market-economy (NME) criteria used by the United States, the dumping and injury findings, and the lack of scientific basis for the classification of catfish/basa and tra fish are all completely out of line with provisions in the WTO, and could easily have been challenged under its dispute-settlement mechanism.

2. Export Subsidies

The reduction and elimination of export subsidies may be one of the most controversial issues in the WTO negotiations. Most major countries are in agreement that export subsidies should be substantially reduced or eliminated. After joining the WTO, Vietnam will have to reduce its export subsidy by 14 percent in volume and by 24 percent in government outlay over a period of ten years. However, subsidies may play an important role in economic development programmes of developing-country members in the WTO. Until then Vietnam should have the right to use export subsidies under the Agreement on Subsidies and Countervailing Measures as its per capita GNP is less than US$ 1,000 (Annex VII of this Agreement).

3. Domestic Support Policies

Several countries, including the United States, have continued to use a significant number of trade-distorting domestic support policies. Vietnam would like to negotiate further reduction of trade distortions.

4. Sanitary and Phytosanitary Regulations

Negotiations will focus on whether to reopen the Uruguay Round Agreement on Sanitary and Phytosanitary (SPS) measures, and on how to handle SPS issues. There is a need for international standards in the regulatory processes for the use of SPS measures. Regulations such as EU's "zero-tolerance" should not be permitted. Most food products including fish products could be affected by the negotiations if the SPS Agreement is reopened. Another option is for the WTO to adopt a more prominent role in the SPS mediation process. Without a transparent process, it may be possible for the major importing countries of fish products to cause unnecessary delays in approval processes and in the presentation of scientific evidence. Methods to treat violations against SPS should also be negotiated in order to prevent the unilateral handling of fish products, as in the case of EU's elimination of fish products without notice and the presence of the owners. The eliminated containers amount to fortunes for low-income fishers or farmers, while they can be of little value for wealthy economies. Consequently, the issue of process transparency is important and should be monitored.

5. Technical Barriers to Trade

Technical Barriers to Trade (TBTs) are governed by the WTO. The Uruguay Round resulted in an agreement designed to prevent TBTs from becoming unnecessary restrictions to trade. However, with the lowering of tariffs and the elimination of import quotas, TBTs have emerged as a major impediment to trade. Negotiations on TBTs will focus on the transparency of regulations, and the need for harmonization among international institutions.

6. Trade and Environment

The stricter environmental regulations in the major market countries have resulted in an emerging set of issues in fisheries trade policies for developing countries. As the cost of compliance with environmental regulations has increased, the potential impact of such regulations on the competitiveness of exports from developing countries has become increasingly important.

In the past, most of the environmental policies in fisheries were voluntary rather than mandatory, and employed public subsidies rather than regulatory penalties in the pursuit of environmental objectives. The competitiveness of fisheries producers was not significantly affected by those policies. In contrast, the stricter environmental policies in fisheries impose a far greater cost on fisheries producers in developing countries.

Another issue that needs consideration is the potential development of non-tariff barriers to trade. If developed countries are permitted to use trade restrictions as a means for effective environmental regulation, a new set of disputes may arise over the scientific validity of such barriers. Therefore, negotiations linking trade and environmental issues are most likely to focus on the impact of enhanced regulations on competition, the methods to ensure that environmental concerns do not lead to restrictions on imports from developing countries, and the harmonization and the development of more consistent environmental regulations across countries.

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