

# Managing Overcapacity of Small-scale Fisheries in Vietnam

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Fisheries in Vietnam are largely classified as small-scale where fishing activities are mostly conducted in near-shore waters. Specifically, marine fisheries in Vietnam have reached a state of over-exploitation with the fisheries resources already declining. As a consequence, small-scale fisheries in Vietnam have also experienced the repercussions of overcapacity. In an effort to address this concern, the Government of Vietnam promotes various measures and programs that focus on the management and reduction of fishing capacity, as discussed briefly in this article. However, the Government remains in quandary because in spite of the promulgated fisheries management measures, overcapacity of the country's small-scale fisheries has not been successfully addressed.

Small-scale fisheries play a crucial role as source of livelihood and income for millions of people in Vietnam. Reports have indicated that during the past two decades, the marine fisheries resources of Vietnam have been overfished and have since then been declining (DANIDA, 2010; Long and Dung, 2010; Pomeroy *et al.*, 2009), which could be attributed to the number of fishing vessels that has substantially increased. The country's fishery statistical reports indicated that the number of fishing vessels in Vietnam had risen to approximately 130,000 in 2010, which subsequently led to the rapidly decreasing catch per unit of effort (CPUE), for example from 1.1 mt per Hp in 1985 to 0.34 mt per Hp in 2005. As a consequence, small-scale fisheries are also confronted with the problem of overcapacity, since the capacity to capture fish is much larger than the quantity of the target to be captured. In view therefore of the country's eminent dwindling marine fisheries resources, the Government of Vietnam declared that overcapacity should be urgently addressed since it



A small-scale fisher's commune in Vietnam

has reached a point where the repercussions could severely affect the sustainable development of small-scale fisheries in the whole country.

Therefore, in an attempt to manage and reduce fishing capacity, the Government of Vietnam implemented various measures and programs including Decision No. 10/2006/QD-TTg and Decision No. 393/TTg. These two measures (**Box 1**) are aimed at reducing the number of fishing vessels in order to achieve sustainability in marine fisheries development. As a result however, the number of fishing vessels did not decrease over time, but has rapidly increased instead, an exact opposite of the goal due to the inability of fishers to comply with the requirements of such measures.

## Box 1. Features of Decision No. 10/2006/QD-TTg and Decision No. 393/TTg of Vietnam

**Decision No. 10/2006/QD-TTg:** based on the new Master Plan for Fisheries Development 2010 and Orientations Toward 2020, the Decision calls for the fisheries sector to reduce the number of fishing vessels down to one-half by 2010 and the number of vessels with engines less than 45 Hp from 64,000 to 30,000 vessels by 2010. However, fishers have the option to upgrade their small vessels to larger vessels/larger-scale to be able to fish offshore or stop fishing and seek other jobs.

**Decision No. 393/TTg:** promulgated in July 1997, the Decision supports the construction by the government of fishing vessels to be sold to fishers at subsidized (reduced) prices.

## Fisheries Sector of Vietnam

Vietnam has a coastline of 3260 km that crosses 13 latitudes from 8°23' N to 21°39' N, and embraces about 4000 islands. Its coast hosts more than 400,000 ha of mangrove stands, and envelops more than one million km<sup>2</sup> of EEZ (VASEP, 2011). Vietnam's 28 coastal provinces are being inhabited by over one-half of the total population of the country. Its fisheries sector is one of the most important sources of the country's economic growth, rural employment, household nutrition, and foreign exchange earnings. The sector, which comprises capture and aquaculture, has dramatically expanded over the last two decades. Specifically from 1998 to 2008, among all the development sectors of Vietnam, its fisheries sector gained the highest economic growth at an annual rate of 18% (DANIDA, 2010).

The total fisheries production of Vietnam was 5,127,600 mt in 2010, while its exports totaled 4.94 billion USD. Given such development, the country's fisheries sector accounted



million Hp (Long and Dung, 2010). Moreover, the average engine capacity (Hp) of fishing vessels has also become more powerful, increasing by over 21% per year, from 10.9 Hp to 52.1 Hp over a 20-year period (Fig. 2).

The official record of fishing vessels shown in Fig. 2, however, does not include small fishing vessels with engine capacity of less than 20 Hp, as these are not managed by provincial offices in accordance with Article 16.1 of the Fisheries Law of Vietnam. Thus, the available information could only be an indication but without showing the actual number of fishing vessels. The true amount of capacity, particularly in inshore waters, could therefore be underestimated considering that the number of unregistered vessels could comprise a significant portion of the country's total marine fishing capacity. The sudden rise in the number of vessels in 2008 could not only be attributed to new fishing capacity entering the fisheries sector but also to the conditions associated with the fuel price subsidy of 2008 based on Decision No. 298 which resulted in the registration of incumbent capacity of an estimated number of 30,000 fishing vessels (DANIDA, 2010). Moreover, the Directorate of Fisheries revealed that after Decision No. 298 was launched, the number of fishing vessels with engine capacity of less than 20 Hp suddenly increased from 31,949 in 2007 to 64,802 in 2010 (DoFi, 2011).

for 4.5% of its national GDP (Fistenet, 2010; Pomeroy *et al.*, 2009) as shown in Fig. 1. Consequently, the number of fishing vessels increased rapidly from 44,000 in 1991 to approximately 130,000 in 2010 at an average rate of 4.8% per year, with a total engine power capacity of 6.17

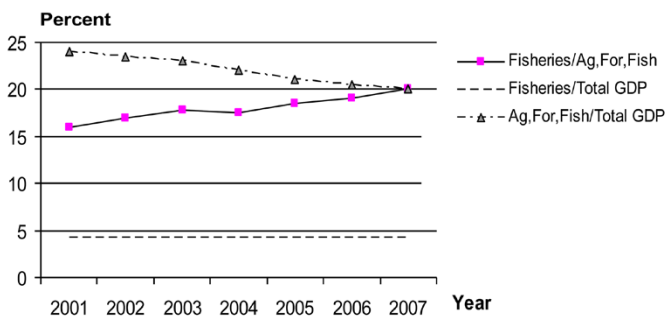


Fig. 1. Percent share of fisheries in the national GDP of Vietnam (Adapted from DANIDA (2010))

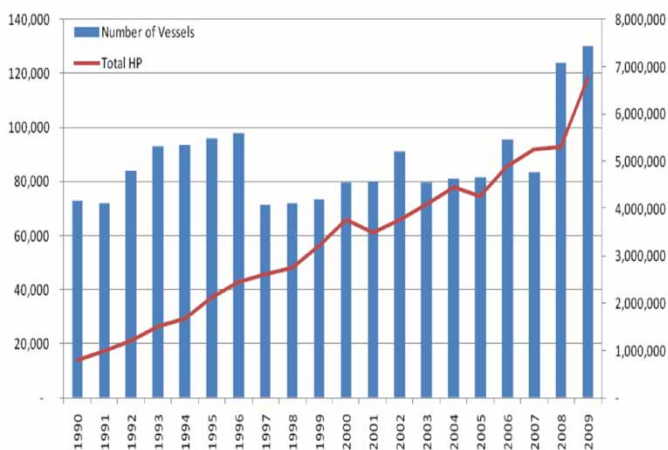
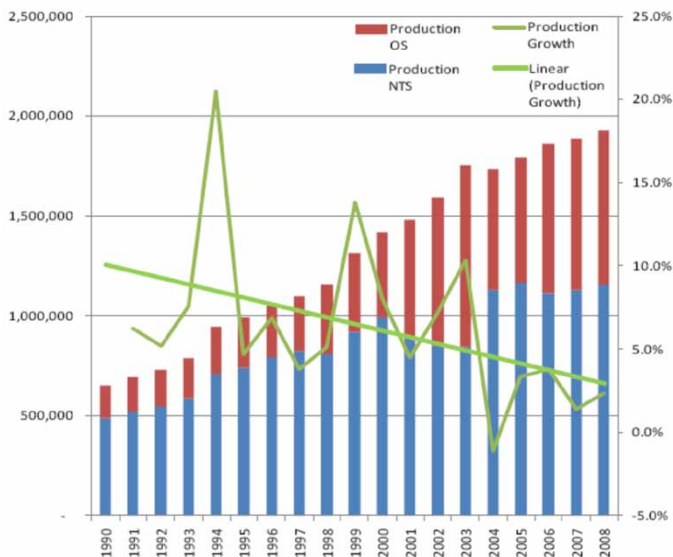


Fig. 2. Trend of marine capture capacity (number vessels and Hp) between 1990 and 2009 (DANIDA, 2010)

During the decade from 1990 to 2000, the number of small fishing vessels (with engines less than 45 Hp) operating in the country's inshore waters also increased by an average of 2,300 vessels per year. Moreover, approximately 50% of the vessels with less than 20 Hp engine capacity, about 72% of the total mechanized vessels of less than 45 Hp, and 86% of the overall fishing vessels have been operating in waters 4-5 nautical miles away from the coast and in waters less than 50 meters in depth (FAO, 2004; Pomeroy, 2010), thus, could be classified as near-shore fishing vessels. Furthermore, a government policy which has been promoted for several years since 1997 encourages the expansion of offshore fleet under the Government's subsidized-interest scheme, by financing the construction of 1,300 offshore vessels. Nevertheless, only 14% of these vessels are currently fishing offshore with the remaining 86% fishing mostly in inshore waters.

Meanwhile, the marine capture fisheries of Vietnam continued to develop rapidly from 1990 to 2008, but their catch gradually stagnated as reflected in the significantly declining growth rate to levels just above zero (Fig. 3). If such trend should continue, the growth rate of the marine catch could be predicted to get close to zero or even reach a negative growth rate in the coming decades.



**Fig. 3.** Trend of Vietnam's marine capture fisheries production in tons and percent (DANIDA, 2010)

Note: OS denotes offshore and NTS is near-to-shore

Nonetheless, many scientists as well as industry insiders believe that the real level could be much higher in spite of the official statistics report that showed landings of less than 2.0 million metric tons (Fig. 3). In fact, DoFi (2011) and DANIDA (2010) had predicted the actual landings in 2004 to be about 2.5 million tons.

Furthermore, Pomeroy (2010) cited that approximately 82% of Vietnam's total catch is derived from waters less than 50 m in depth, which implies that such catch must have been derived from near-shore fishing activities. As a consequence, the coastal landings could be higher than the maximum sustainable yield as these continued to show increasing growth without stopping. This development reflects a situation where possible biological overfishing occurs in the country's marine waters, especially at depths of less than 50 m.

## Case Study

There is an increasing concern worldwide about the negative impacts of overfishing as well as overcapacity from the aspect of fisheries sustainability, to the social and economic conditions of fishers and fishing communities. Overcapacity, according to Ward *et al.* (2004), "can be considered as generic term for excessive levels of capacity in the longer term and relates to some long-term desirable level of capacity (the target capacity), which may either come as long-term target sustainable yield or some long-term target level of capital employed in the fishery". Other researchers defined overcapacity as "the situation where the capacity to capture is much higher than the target to be captured" (Pascoe *et al.*, 2003). In simple

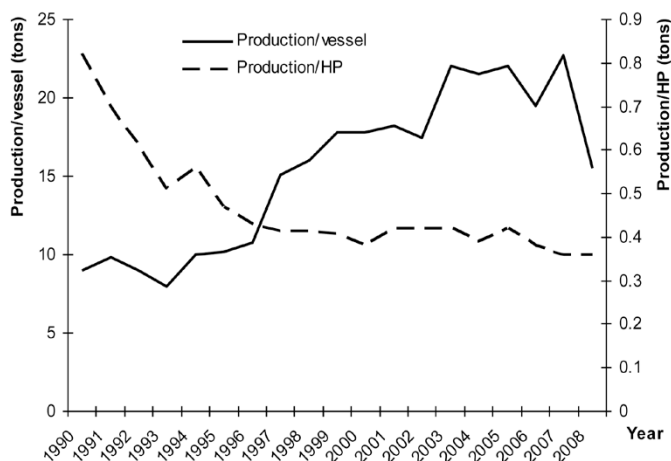
terms, overcapacity therefore refers to the fact that there are "too many fishers chasing too few fishes" (Pomeroy, 2011). Nevertheless, many indicators could now be used to pinpoint the existence of overcapacity in small-scale fisheries especially in developing countries including Vietnam.

A case study was therefore conducted to identify the problems and challenges encountered by fishers and fishery management authorities in Vietnam that could explain their inability to heed to the fishing capacity reduction policies of the Government. The study made use of a mix of descriptive statistical analysis and subjective assessment methods through theoretical and descriptive legal research utilizing compiled primary and secondary data. Secondary data were collected from fisheries agencies, international reports and papers, and proceedings of conferences, among others, and used to assess the status and dynamics of fishing vessels, the number of fishers, landings, CPUE, and status of marine resources over time. Primary data were compiled to identify the causes and impacts of overcapacity including the implications of the fishing capacity management policies in the small-scale fisheries sub-sector of Vietnam. Secondary data were also applied in the development of subjective assessment and quality indicators that could illustrate the state of overcapacity in the country's small-scale fisheries.

Specifically for the case study, possible indicators were determined by collecting necessary fishery information from knowledgeable individuals, such as fisheries experts, scientists, fishers, middlemen, and other fishery-related stakeholders who have been associated with the country's fisheries sector for several years. In addition, observations provided by key informants as well as those compiled through surveys and group interviews were analyzed using the Delphi technique and rapid appraisal methods, since these approaches are known to provide information on historical changes and trends in the fisheries (Pomeroy, 2011; Ward *et al.*, 2004). Moreover, results of the qualitative assessments of overcapacity have been considered as verifiable indicators as these are based on scientific methods (Pomeroy, 2011; Ward *et al.*, 2004), and thus, could be used to identify several indicators such as the biological status of the fisheries, harvest-target catch ratio, TAC/season, conflicts in fishing activities, CPUE, value per unit of effort, and age of fleet, among others.

### Relationship between Landings and Number of Vessels

Since the nature of fisheries in Vietnam is multi-dimensional in terms of species, gears and fishing capacity, the most common measure used to analyze overcapacity is catch per horse power for motorized vessels. However, as shown



**Fig. 4.** CPUE of marine capture fisheries in Vietnam Modified after DANIDA (2010)

in Fig. 3, the total catch and catch per vessel increased continuously while the marine capture productivity (average CPUE) defined as production per aggregate horse power, has rapidly decreased (Fig. 4), which illustrates the falling harvesting productivity of the marine fisheries in Vietnam. The official report which showed that the productivity (CPUE) has dropped from 1.11 tons per Hp in 1985 to 0.89 ton per Hp in 1991, and to 0.34 ton per Hp in 2005, is indicative of a rapid decline in productivity in relation to the unit effort (Pomeroy, 2010).

### Fisheries Policies related to Management of Overcapacity

#### *Fisheries governance system of Vietnam*

It should be noted that policies of the Government of Vietnam are defined in terms of Laws, Decrees, Decisions, Ordinances, Circulars, and Regulations, with the latter enforced at provincial level. The provinces are the lowest authorities at which policies and regulations are drafted consistent with corresponding national legislations. The country's fisheries sector is therefore in general, managed in a top-down manner.

#### *Prior to the implementation of Vietnam Fisheries Law*

By mid 1990s, most proclamations of the Government of Vietnam indicated full recognition of the state of overcapacity in the country's small-scale fisheries. Strategies were therefore crafted to address the issue, which included reducing coastal fishing pressure and developing offshore fisheries. However, the specific management measures that could address overfishing in coastal waters were not put in place, except those that aim to protect the fisheries resources and limit the operations of coastal/inshore fishing vessels with engine capacity of less than 30 Hp (Pomeroy *et al.*, 2009). Specifically, a state legislation was also introduced in 1997 which limits the construction

of fishing vessels with less than 20 Hp engines, which later on were eventually banned from operating after 1998.

In practice however, these same fishing vessels continue to operate in inshore waters, which together with larger fishing vessels and new small vessels, are trying to avoid registration. This situation entails the need for a thorough review and redefinition of such policy which could perhaps include a mandatory license-surrender policy. Nonetheless, many provincial officials expressed the view that implementing this law could only lead to disruptions in fishing operations which in turn could create hardships on the part of small-scale fishers considering that they do not have access to funds for building bigger vessels. Therefore, it could be perceived that only a gradual implementation of such policy could possibly work.

#### *After the introduction of Vietnam Fisheries Law*

Currently, various management policies have been introduced to address the problems in small-scale fisheries in general, and overcapacity in particular. The first and most important law is the Fisheries Law of 2003, which is currently still in effect. Under the Fisheries Law, one of the most important policies for reducing overcapacity is contained in **Decision No. 10/2006/QĐ-TTg** which was approved by the Prime Minister on 11 January 2006. Based on the new Master Plan for Fisheries Development up to 2010 and Orientations Towards 2020, such Decision stipulated that by 2010, the fisheries sector should have reduced the number of fishing vessels down to one-half of its present total number. Specifically, under the Master Plan, the present number of fishing vessels with engines less than 45 Hp, most of which are small-scale vessels operating in near-shore waters, should be reduced from 64,000 to only 30,000 by 2010.

#### *Fisheries subsidies for small-scale fisheries of Vietnam*

Although it is difficult to quantitatively measure the extent of the impacts of fisheries subsidies provided by the Government of Vietnam, detailed information and data on marine fisheries subsidies were compiled and an analysis was conducted through recent studies, to understand the status of overcapacity in small-scale fisheries of Vietnam (DANIDA, 2010). The information was also used to determine how such subsidies have impacted on the fisheries sector. In totality, the fisheries subsidies provided until 2009 were estimated to be about USD 316,633,000.00. In addition, the subsidies were classified in the aforementioned studies as "good subsidies" which amounted to USD 48,537,000.00, and "harmful subsidies" dubbed by some scientists as "bad and ugly subsidies" (Sumalia and Pauly, 2006) amounting to USD 268,096,000.00.

## Box 2. Some forms of harmful (bad and ugly) fisheries subsidies in Vietnam

### i) Natural resources tax

Before 2005, resources and revenue taxes from inshore and offshore fishing operations were collected, but since 2005 these had been discontinued. Nevertheless, a new law was introduced in 2009 that enforces the payment of fisheries resources tax.

### ii) Reduced registration taxes

A 50% cut in the registration tax for offshore capital investments especially for constructing new vessels has been imposed, including taxes for purchase of new and more fuel-efficient machinery for offshore fishing. This policy has caused certain drawbacks for the marine resources, since fishing effort has increased which eventually led to increased number of fishing vessels for offshore and near-shore fishing activities. It is however dismal to note that some offshore fishing vessels have been going back to the coastal areas to fish because of difficulties in finding fish in offshore waters and the high costs entailed in offshore fishing operations.

### iii) 2008 fuel price support

Fuel price subsidy was provided to fishing vessels operating in offshore and near-shore waters, but in order to be eligible for such subsidy, fishers should comply with various conditions, such as: (i) fishers should be at sea for at least six months every year, and (ii) should have in their possession all the required fishing vessel and gear registration. The latter condition had indirectly induced a sudden increase in the number of registered small fishing vessels by about 30,000 vessels in two years! The total cost of this subsidy has been estimated to reach about USD 91.0 million (DANIDA, 2010).

According to UNEP (2008), good subsidies on one hand, could help achieve responsible fishing practices as these usually come in the form of assistance in fisheries management, crafting of legislations, implementation of statistical information programs, development of MPAs, establishing insurance schemes for vessels and fishers, and promoting safety at sea measures, among others. On the other hand, harmful or the so-called bad and ugly subsidies are those which contribute to overfishing. In the case of Vietnam, harmful fisheries subsidies include the removal of resources tax and revenues, granting of short-term fuel subsidies which the Government provided in 2008-2009, and providing loans to fishers to enable them to engage in offshore fishing operations. It should also be noted that in the case of Vietnam, mechanisms have not been developed to ensure that such harmful subsidies do not violate the country's coastal fisheries plans. Some examples of harmful or bad and ugly fisheries subsidies in Vietnam are shown in **Box 2**.

In the case of Vietnam, such harmful fisheries subsidies have negatively impacted on the implementation of policies that primarily aimed to reduce fishing capacity in near-shore areas. Nonetheless, the promotion of such subsidies had unintentionally uncovered the truth about decommissioned vessels which continue to fish instead of plainly disappearing from fishing grounds. Usually, high fuel costs should have discouraged most offshore vessels from continued fishing but the fisheries subsidies in the

form of fuel price support had prompted more vessels to re-enter the fisheries sector.

Thus, many vessel owners opted to continue fishing operations in order to receive the subsidies. Otherwise their vessels should have just stayed in ports because of the observed decreasing fish stocks. As a result, more vessels continue operating in the coastal areas doing more harm to the already degraded resources. In reality, many subsidized offshore fishing vessels return to near-shore areas and compete with small-scale fishers. As a matter of fact, reports of the Directorate of Fisheries on the progress of the implementation of its fisheries development plans, showed that from 2006 to 2010, at least 14,000 fishing vessels have remained in ports before the fuel subsidy was implemented (DoFi, 2011), but later and in order to enjoy the subsidies, the same vessels have been known to continue fishing in the coastal waters.

## Challenges in Small-scale Fisheries of Vietnam

From the perspective of the fishers, their current socio-economic conditions have contributed to their inability to comprehend and accept the rationale behind the policies of the Government of Vietnam that aim to address overcapacity in small-scale fisheries. More specifically, the small-scale fishers' educational preparation, where only 2.0% received higher education, out of which 39.1% attended primary school, 38.1% attended secondary school, and 16.5% completed high school, and in particular about 3.1% did not go to school (Hao, 2009), is not adequate enough for them to comprehensively perceive the issue of overcapacity in fisheries. When asked during the survey on *what they think about the proposed reduction of fishing capacity/fishing vessels by the Government* which comes with various options including limited entry to the fisheries through license limitation and limiting the number of fishers, most fishers expressed their opposition against the policy on reducing the number of fishers. They justified that fisheries have provided them with steady year-round incomes, and that they have always been dependent on fisheries for their livelihoods and stable living conditions over time.

Nevertheless, some respondents also suggested that the Government should create alternative livelihoods and promote credit schemes if they are to get out from the fisheries sector, considering that alternative sectors where they could find possible employment seem inadequate. Small-scale fisheries have therefore been considered by many fishers in coastal communities of Vietnam, as "*employer of last resort*". In spite of the attempts of the

Government to encourage small-scale fishers to go offshore to fish by providing various support schemes, especially in terms of capital, fishing technologies and upgrading of their vessels, their inadequacy in terms of educational level and training background, strongly challenged them in accessing new fishing technologies relevant to offshore fishing. As a consequence, many offshore fishing vessel operators reported that getting sufficient skilled crew members to operate offshore fishing and man their fishing vessels, has become extremely difficult. In fact, some offshore fishing operations had been cancelled or delayed in many instances, due to insufficient number of crew members.

### Competition and Conflicts in Marine Capture Fisheries

Records have shown that in 2010, the number of fishing vessels less than 45 Hp and non-mechanized fishing vessels was 98,239, and being considered as small-scale, these vessels have been actively fishing in coastal seawaters. From the findings of the case study in three coastal provinces (Khanh Hoa Province, Binh Thuan Province and Binh Dinh Province) in central Vietnam, over-exploitation and exhaustion of the coastal resources have resulted in reduced earnings of small-scale fishers from fishing activities, *i.e.* a reduction of about 70% compared with their earnings 5 or 10 years earlier, while there were instances when their earnings were not even enough to defray their operating costs. It is in such a situation that conflict among stakeholders ensues and becomes unavoidable, worsening over time, as many fishers are competing for the same resources. Moreover, conflicts also occur between small-scale fishers and large-scale fishers, among fishing fleets, among fishing vessels, between local fishing vessels and foreign fishing vessels, and so on. Since fishing fleet with more than 45 Hp could no longer fish in their designated fishing grounds due to the declining resources, the same fleet are now fishing in coastal waters (near-shore) and compete with the authentic coastal fishing fleets of small-scale fishers. The competition becomes stiffer all over the coastal zones, resulting in heightened fishing pressure due to increased recruitments of hundreds of small fishing vessels every year (an average 2,300 vessels per year).

Moreover, the increasing number of fishing vessels in near-shore waters has led to decreasing mean catch per unit effort (CPUE), *i.e.* from 1.11 tons per Hp in 1985 to 0.34 ton per Hp in 2005, which implies that the high density of fishing vessels in near-shore waters delivered low capture yields. It should be noted that about 60% of the total allowable catch is exploited by 86% of the vessels operating in near-shore waters that represent about 25% of

the total EEZ of Vietnam. Therefore, as the mean CPUE decreases, fishers tend to increase their fishing intensity by: (i) increasing the number of hauls per fishing day or number of fishing days per year; (ii) reducing the mesh size, thereby contributing to increased ratio of juveniles caught; and (iii) applying various unsustainable fishing techniques such as high-powered lights, different kinds of fishing gear or other means that could create negative impacts on the environment. In fact, non-selective fishing gear like stow nets (in estuaries), fixed nets, and push nets are still being employed by fishers in Vietnam (Long, 2003). Severe competition for the degrading coastal resources would only bring the poor fishers to a worse situation where they are forced to use any kind of fishing technique just to survive. To mitigate such situation, it is necessary to devise appropriate management policies aiming to control the number of vessels that freely attach to coastal fishing fleets and subsequently reduce the fishing pressure in coastal waters. However, *the dilemma* is: reducing the number of fishing vessels will in turn strongly impact on the socio-economic conditions of poor fishers.

### Poverty in Small-scale Fisheries

According to Béné (2003), a relationship exists between fisheries and poverty, *viz.* “*they are poor because they are fishermen*” and “*they are fishermen because they are poor*”. Small-scale fishers have been considered the poorest of the poor because of the endogenous and exogenous origin of poverty in fisheries. In Vietnam, 157 coastal communities



Fishing vessels anchored at Nha Trang Bay, Vietnam  
Source: [www.google.com.vn/tauthuyenngheca](http://www.google.com.vn/tauthuyenngheca)

have been identified by MoFi (2005) as special difficult communes. Although these coastal communities may not necessarily be the poorest, but these are among the most vulnerable socio-economic groups (Béné, 2008). In this case, vulnerability should be understood in terms of the people's exposure to risks, sensitivity of their livelihood systems to such risks and their capacity to use their assets and capabilities to cope with and to adapt to these risks (Pomeroy and Andrew, 2011). DANIDA (2010) reported that coastal vulnerability is relatively high in Vietnam, and an increasing part of the population which is relatively poor has relatively high levels of un- and under-employment. In the coastal small-scale fishing communities of Vietnam, about 25,000 people enter the fisheries sector annually where majority of the small-scale fishers is significantly dependent on the fisheries resources for their food and livelihoods, and operates close to or at subsistence level. Therefore given the current state of the fisheries resources, small-scale fishers found that their "bread and butter" today has become more expensive and difficult to obtain, much more so of their food for tomorrow which is being threatened.

While the number of fishers and vessels, and aggregate capacity in Vietnam's fisheries continue to increase, the new entrants are the underprivileged who are unable to invest in larger vessels, and lack the opportunities for seeking alternative livelihood possibilities. As such, it is inevitably almost certain that the poor children will follow their parents to the waters. While recognizing that future livelihood in fishing and stable income for their children become vague, fishers although in some (rare) cases, are encouraging their children to go to school to enable them to seek better livelihoods elsewhere in different sectors and in different regions of the country (DANIDA, 2010).

Nevertheless, children who could not go to school or who will receive lower level of education also become poor in the future like their parents, and would continue to live in a vicious cycle associated with poverty in fisheries (Kato, 2008). As a result, "they will become fishermen because they are poor" and "they will be poor because they are fishermen", which Béné (2003) aptly likened to "fisheries = poverty". It is dismal to note that in Vietnam, both paradigms seem to exist at the same time!

### Problems Emanating from Current Management Policies

Results of the case study also indicated the difficulties in implementing the 2003 Fisheries Law of Vietnam, especially putting it into force in the fisheries sector of

the country. Many fishers do not seem to comply with the Law since this has not been comprehensively enforced by the local government units. In addition, the government at national, provincial and district levels still lacks the capacity and resources to plan for and implement fisheries management schemes, since most government fisheries projects in particular, are focused more on increasing production outputs including subsidies and improvements in processing, rather than on sustainable fisheries management. Moreover, government investments for offshore fisheries expansion have almost been ineffective in meeting the key targets for job diversification and poverty alleviation. Instead, these have likely contributed to greater serial depletion of near-shore resources and increased fishing capacity in near-shore waters as described in **Box 3**.

Various reasons were identified by many fishers in the provinces that could justify the unsuccessful implementation of the afore-mentioned policies. These include: (i) inadequate offshore technologies such as maritime machinery, fishing gears and conservation measures; (ii) insufficient experience of skippers and crew; (iii) fishing vessels of predefined and inappropriate specifications cost 20-50% more than counterpart private vessels; (iv) lack of follow-up and support by financial and fisheries institutions; (v) belief that non-payment of loans is a norm, and (vi) purposive delays in loan repayments by some of the more successful fishing vessel operators. These reasons were alleged to be influenced by various factors as shown in **Box 4**.

Box 3. Impacts of the current fisheries management policies of Vietnam
<p><b>Decision No. 393/TTg of July 1997</b> was meant to encourage small-scale fishers to exploit offshore waters, with the objective of increasing the number of fishing vessels of more than 90 Hp through a program that supports the construction of vessels to be sold to fishers at subsidized interest rates (low rate). However, there was high rate of failed repayment on the subsidized vessels with only about 14% of the 1,300 fishing vessels funded under the program, having complied with their scheduled repayment, despite a reduction of the interest rate in 2003 from 7.0% to 5.4%. In other words, only 14% of these fishing vessels are operating in offshore areas (MoFi, 2005) while the rest may be operating in inshore waters.</p>
<p><b>Decision No. 10/2006/QD-TTg</b> encouraged the fisheries sector to reduce the number of fishing vessels down to one-half of its number in 2010, implying that by such time the whole fleet should comprise approximately 50,000 vessels, while the present number of 64,000 vessels with engines less than 45 Hp should be reduced to 30,000 vessels by 2010. However, since enforcement of the Plan was ineffective, the goal of reducing the number of vessels to 50,000 remained un-achievable. As a result, the number of fishing vessels did not only decrease but had rapidly increased over time. With about 2,300 new fishing vessels joining the fisheries sector each year, by 2010 there were approximately 130,000 fishing vessels in Vietnam.</p>

**Box 4. Factors that contribute to the unsuccessful implementation of fisheries management policies in Vietnam**

**Guiding documents for local agencies (below provincial level) as well as control criteria to carry out Decisions at local levels have not been developed by the Government.** Thus, local authorities are unable to reasonably restructure the number of fishing vessels and the kind and number of vessels to be reduced, and are not aware of any suitable alternatives to be carried out in order to best meet the management objectives. Provincial governments do not employ laws and regulations on reducing overcapacity for fear that these would cause severe disruptions and hardships to small-scale fishers. DoFi also cited that there are no particular regulations or guiding documents for reducing overcapacity since national focus is placed on enhancing production volumes in terms of marine capture and aquaculture, as well as on projects related to construction and upgrading of ports, processing sites, and other infrastructures.

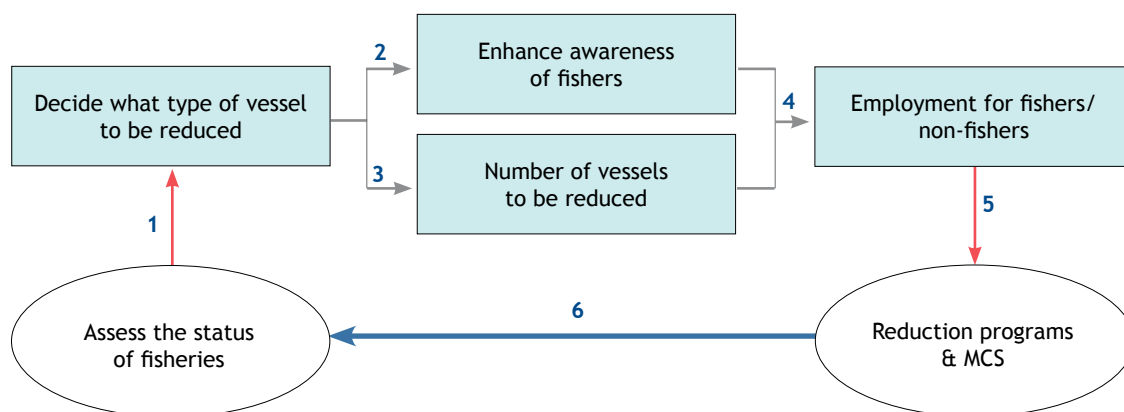
**Inconsistency, overlapping and lack of coordination between the strategic orientation of the national fisheries sector (e.g. 50% reduction in fishing vessels at modest output growth of 3-4% per year) and strategy at the provincial and district levels (e.g. setting of high growth targets for coastal fisheries landings).** Results of the case study indicated that nearly 100% of fishers are not aware of such government policies, as local agencies have not advocated these to the people. Volume targets set out in development plans led by the provinces place heavy weight on economic growth. In other words, many coastal authorities are reluctant to implement any policies that could adversely impact on the local fishing communities, although provincial and district authorities expect that fishers should fish as much fish as possible to meet the increasing production goals without due consideration of any policies to reduce fishing capacity. This has even led to inter-provincial competition where control regimes based on agreements between adjacent provinces could be weakened. In addition, the promulgated consistent increase in annual harvest volumes for economic growth results in the misguided beliefs on the part of fishers (DANIDA, 2010). Notwithstanding the possible impacts, increase in annual outputs has been a major indicator for measuring the country's success in fisheries development and an important criterion for evaluating the performance of government officials in promoting fisheries-related activities.

**A more valuable catch could be taken with less effort (fishing capacity) and less cost, and the excess inputs used to catch fish could in theory be used instead to produce other valuable goods and services.** Indeed, there is a common misconception among fisheries management authorities that if production is still increasing (as is currently true for Vietnam), therefore, there is no immediate need to hit the panic button, an attitude that reflects a gross misunderstanding of the problem. The fact that even though production is increasing (albeit at a declining growth rate), economic losses are already being incurred in all probability (DANIDA, 2010). Subsidy programs for fishers to change to other employment have not been developed (*i.e.* financial considerations, technical aspects towards going to off-shore fishing activities or upgrading the vessel structures). Furthermore, most policies seem contradictory, *e.g.* Decision No. 298/2008 which provides gas/petrol support for fishing activities, gives incentives to expand fishing operations which is the exact opposite of Decision No. 10/2006 which aims to reduce the number of fishing vessels. Careful attention should be made in implementing Decision No. 10/2006, especially in terms of reducing fishing capacity. Indeed, it is assumed that when the number of fishing vessels is successfully controlled (although policies to reduce fishing efforts in certain situations, have seldom been effective in limiting overcapacity), it is normally the less efficient vessels that tend to exit, which, when coupled with a rise in technical efficiency, would lead to the reduction of fishing effort although this has not always been achieved proportionally (DANIDA, 2010).

**Problems in Promoting the Concept of Monitoring, Control and Surveillance (MCS)**

Results of the case study have also established that overcapacity in small-scale fisheries of Vietnam is closely related to the absence of a Monitoring, Control and Surveillance (MCS) system in the country. While it is recognized that MCS plays a very important role in mitigating illegal, unreported and unregulated (IUU) fishing activities, promotion of MCS in Vietnam poses a problem and results in increased number of unregistered fishing vessels without fishing licenses but still continue to

operate in its waters. Thus, fishing capacity has increased which is coupled with increased overfishing and severe environmental degradation as the natural consequences. Pramod (2011) made an evaluation of the implementation of MCS in marine fisheries of 41 countries, including Vietnam. In his case study, he evaluated the effectiveness of the patrolling agencies in monitoring and controlling fisheries within the 200 nm EEZs. The results showed that Vietnam's fisheries are among the worst fisheries in terms of implementing MCS (**Box 5**).



**Fig. 5. Model of fishing capacity management plan for Vietnam's small-scale fisheries**



### Box 5. Factors affecting the effectiveness of patrolling agencies in monitoring and controlling fisheries

Surveillance infrastructure in Vietnam remains inadequate with respect to the country's EEZ area that should be patrolled, while existing legislations if any are poorly enforced. Enforcement is limited due to budgetary constraints of provincial governments in operating patrol vessels and other means. Patrols are generally limited to *ad hoc* beach and port patrols checking only such regulation as gear restrictions while fisheries law enforcement remains weak. Advanced MCS tools and management mechanisms such as dockside checks, having observers onboard fishing vessels, and installation of vessel monitoring systems (VMS), are not part of Vietnam's strategies as of this time.

Management plans to monitor Vietnam's fishing vessels are inadequate, especially because Vietnam is also not a signatory to the FAO Compliance Agreement. As a result, many Vietnamese fishing vessels have been caught illegally fishing not only in the high seas but also in EEZs of neighboring countries like in Malaysia, Indonesia and the Philippines. Adequately trained officers to conduct MCS operations are extremely insufficient while fishing vessels are seldom inspected at sea, as patrols' expenses (such as fuel costs and human expenditures) are artificially billed drawing a balance for State Auditing. In fact, fuel intended for patrol vessels are sold to fishers or others at sea. MCS operations have been corrupted and seemed to harass the fishers. In practice, fishers reported that when the patrols approach them to inspect their vessels, the patrols' first statement is to ask for *fish*. Normally, when fishing vessels have not been registered yet, or in case of engaging in IUU fishing, fishers sometimes bribe the patrols to avoid punishment or from being apprehended. Thus, enforcement of laws and regulations related to marine fisheries remains very ineffective. While the patrols appear to be not responsible for enforcement of the fisheries regulations, the fishers who do not care about the legislations also seem not to fear the patrols.

## Discussion and Conclusion

Addressing and managing overcapacity in small-scale fisheries is much more complex than reducing overcapacity in industrial or commercial fishing fleets, because of the complexity in small-scale fisheries mixed with the fast growing populations, sluggish economies, fishers' high dependence on the resources for food and livelihood, lack of employment opportunities in non-fishery sectors, fast increasing numbers of part-time and seasonal fishers, limited transferability and rigidities in the movement of use-specific capital and labor, conflicting policies, and lack of precise data for management. Reducing overcapacity would imply the need to have increased focus on people-related solutions and on the communities.

Therefore, there is no single and simple solution that could address the overcapacity problem in small-scale fisheries because of their complexities, while the use of any single approach in isolation would be ineffective. Many countries have been successful in reducing overcapacity and the experiences of Asian countries like Taiwan, China, and Thailand could be appropriately referred to, especially in controlling and putting a limit to fishing capacity in the case of Vietnam's small-scale fisheries. Specific measures could be applied in the case of small-scale fisheries in

Vietnam but the country's socio-economic situation should be taken into consideration as could be gleaned from a management framework which has been suggested for the case of Vietnam (Fig. 5).

It is therefore, necessary to assess entirely and seriously the fisheries condition of Vietnam in general and its small-scale fisheries, in particular, as the result would provide certain justifications on the type of vessel that would be reduced. In the process, awareness of the fishers on the importance of sustainable fisheries development should be enhanced while their perceptions and plans to exit from the fisheries should be clearly understood and fully supported by fishery authorities in fishing communities. Plans to manage overcapacity, the number of fishing vessels to be cut down, and the ways and means to undertake such reduction should be established, considering the activities that could facilitate sustainable management of fishing capacity, e.g. establishment of MPAs, creation of alternative livelihoods, promotion of co-management approaches, and adoption of the concepts of ecosystem approach to fisheries, among others.

Therefore, the Government of Vietnam should consider exerting efforts to craft coordinated and integrated management approaches for addressing overcapacity in the country's small-scale fisheries. In summary, the case study has illustrated that small-scale fisheries in Vietnam are confronted with various problems such as over-fishing, environmental degradation, depletion of marine resources, and overcapacity. The latter of could be appropriately perceived from the common proverb "*elephant in the room*" because it is a very obvious problem that no one wants to discuss, thus it could remain unaddressed although it is something which is impossible to overlook in view of its magnitude. In other words, everyone knows about the overcapacity problem but is deliberately ignoring it.

Although several management policies for reducing fishing overcapacity had been promoted in Vietnam, particularly Decision No. 10/2006/QD-TTg by the Prime Minister, but such policies have not been successfully implemented in all their aspects. Various reasons have been established through the case study contributing to this great challenge, which could include: (i) small-scale fishing is considered as "*employment of last resort*" for the poor in coastal communities since alternative employment opportunities are limited or non-existent in coastal areas; (ii) desire to achieve increased production goals at all costs, not only at the provincial but also at national levels; (iii) apparent endless support programs for small-scale fisheries in the form of "*bad subsidies*"; and (iv) ineffective enforcement of fisheries' laws and regulations. In addition, some

concerns are just too gigantic to attain, especially the strong competition and conflicts in marine capture fisheries as well as those related to the implementation of MCS. From the results of the case study, it could be gleaned that although fisheries overcapacity is largely understood by management authorities and the fishers as well, the required hard decisions to deal with it are not being implemented and enforced. Clearly, there is no single “silver bullet” solution to the problem meaning that there is no direct and straightforward solution since any possible solution would have to cut across the complexity of the country’s small-scale fisheries.

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