COUNTRY REPORT OF VIETNAM

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■ INTRODUCTION

Seawater and continental shelf belonging to the Exclusive Economic Zone of Vietnam are estimated to be over 1 million Km2, about 3 times bigger than the mainland area. Seawaters and continental shelf increasingly play an important role in fisheries in particular and in national marine economics in general. The coastline of Vietnam is 3260 km long and stretches through 15 degrees of latitude in the North-South direction. The continental shelf is wide in the North and South with a quite complex terrain.The maximum depth is about 5000m in the Centre region.

The Vietnamese Government pays much attention to the marine fisheries and has applier proper measures in resource management and fishing, in order to meet the domestic demand for protein and export.

In some recent years, coastal resources have been over-exploited while offshore ones have not been well exploited yet. The development of offshore fisheries therefore has a great significance in Vietnam's fisheries. Resources preservation is a necessary task of Vietnamese fisheries. Ordinance on preservation and development of fisheries resources and regulations in fisheries management play an important role in Vietnamese seawaters.

The world's fisheries are encountering two great pressure such as depletetion of fisheries resource and increasing demand for fisheries products. In Vietnam, especially in the coastal areas, the exploitation of marine resources has reached to the limit of renewal capacity of resources. Many species of hight economic values have been overexploited. Though the catches have gone down significantly. Therefore, sustainable management of marine resources play a very important role.

In order to find solutions to the above issues, the Government of Vietnam has paid great attentions to marine fisheries, taken appropriate measures to protect and exploit resources properly to meet people's need for animal protein. However, Vietnam has many obstacles such as lack of information, research equipment and facilities, technical know-how, and especially financial capital.

■ CURRENT SITUATION OF STOCK ENHANCEMENT AND ARTIFICIAL REEFS ISSUE IN VIETNAM

As many Country in the region, In Vietnam, the introduction of man-made structures, including artificial reefs, aquaculture facilities, breakwater, stationary fishing gears and Marine Protected Areas MPAs are considered as resources management strategies and to enhance local populations of aquatic organisms, provided that there are sufficient numbers of structures to have a significant and positive impact on ecosystem productivity and that they are intergrated into coastal zone management regimes.

In some recent rears, in order to enhance local population of marine organisms we express initial concern on two main man-made structures as following:

MPA system

Marine conservation starts late in Vietnam compared to other country in the region. At the moment there is only one MPA (***Hon Mun***, south of Vietnam) available. Another one (***Cu Lao Cham***, DaNang, Vietnam) is being setup and expected to start zoning in next year 2005. However, the plan

for establishment of a system of MPAs have been setup and put into effect. In early of this year (2004), the Ministry of Fisheries (MoFi) have submitted a proposal "*Network of 15 MPAs along coastal areas in Vietnam* " to Government and waiting for permitions.

The idea to establish am MPA system started in 1999 when scientists collected bio-diversity data to select sites for conservation. In the first proposal, about 30 sites were proposed. After many revisions, some 15 sites were finally accepted and ranked by level of priority. They cover most of the high diversity areas in vietnamese sea. Therefore, Vietnam become one of a few countries in the region establishing MPAs in a special system.

Following this plan, in 2000, the first MPA in Vietnam was established in the Centre of Vietnam, referred as the pilot MAP Hon Mun, funded by the World Bank, IUCN and ADB. After two years running it has shown some signals of stock enhancement and recovery of reef fish population, coral reefs and other marine animals in the MPA. The project operators claim that the establishment of such MPA is somewhat late in terms of ability for the recover of resources as they are exhaust. If it were established earlier, it would be less difficult and needs shorter time to recover the resources. This is a valuable lesson for the conservation process in Vietnam. The process must be pushed forwards, before it is too late.

The second MPA is now being setup in CuLaoCham (also in the Central of Vietnam). This is a part of the project called:"supporting the MPA system in Vietnam" supported by DANIDA which aims to motivate the establishment of the MPA system in Vietnam. There are also two other small local marine protected sites created by local governments in cooperation with NGOs in Ran Trao (60 km to the north of HonMun MPA) and Phu Long (in the north of Vietnam) set up bylocalgovernments. In addition, three other national terrestrial parks ConDao (in the south), Bai Tu Long and Cat Ba (both in Ha Long Bay) also take care of marine areas within or surrounding them. However, they do not focus much on marine resources due to the limit in human resources and budgets. Under the planning of Vietnam, many other MPAs are expected to be established in near future.

Artificial Reefs

As the MPA system is being setup, artificial reef is also expected to play an important roles in the conservation process, particularly in areas where reefs are unable to self-recover or they are suffer from mud siltation. However, the establishment of artificial reefs strongly depends on the conservation process. As this process is moving slowly, the application of artificial reef is also slowly in Vietnam. In some years ago, there has not been a real artificial reef in Vietnam. The only functioning MPA (Hon Mun), It does not use artificial reefs because they have other choices cheaper than artificial reefs: Protect and let the reef self-recovering.

Early of last year, a testing artificial reef was setup at the local protected site Ran Chao (in the central of Vietnam). Numbers of concrete tanks with holes were laid on seabed. But up to now, no data on the development of the reef available yet and the success of these work is still uncertain.

In 2003-2004, artificial reef is strongly motivated by Research Institute for Marine Fisheries (RIMF). It is now creating an artificial reef in HaLong Bay in an attemp to check the possibility of recovery of the reef and proper methods in building artificial reefs in this high turbidity area.

Figure 1. Design and construction of concrete tanks being used for artificial reefs in Ha Long Bay (2003-2004).

Figure 2. Concrete tanks as artificial reefs are being laid on seabed in Ha Long Bay, North of Vietnam.

■ SUMMARY AND RECOMMENDATION FOR FUTHER PROMOTION OF ARTIFICIAL REEFS IN THE REGION.

It is necessary to work out appropriates measures for resources management such as limitations on fishing efforts, setting a limit to the protected areas according to spawning seasons and nutriention periods, limitation of the number and size of fish to be caught. Appropriates measures should be applied to manage and exploit fisheries resources in a reasonable way in order to meet the people's demand for animal proteins.

Vietnam shold strive to overcome difficulties to manage coastal resources in terms of fishing operation, environment awareness, improvement of rules and regulations, limitation of the private sector and scientific infrastructure, and institution potential. In order to do so, it is necessary to give priority to environment issues and to develop an appropriate master plan with a view to meeting the requirements for resources exploitation and environmental protection in coastal seawaters.

In order to get comprehensive development, it is
necessary to focus on the following main measures:

- It is necessary to establish marine protected areas; to develop programs on proper utilization of coastal wetlands in the Red and Mekong rivers.
- All the management and strategic issues have shown that inforamtion exchange and experience sharing is an important issues in the intergrated management of nearshore waters, the best way is to achieve it through regional initiatives.
- Resource protection and fisheries policies are major tasks for the sustainable development of marine fisheries in Vietnam. In order to protect resources, it is necessary to have technical and administrative measures on coastal fishing. Fishing activities should be limited in spawning seasons; it is banned the exploitation of endangered species and the use of destructive fishing gears.