

## CHAPTER V

### CONCLUSION

This chapter first summarizes the overall findings and analysis of this research. It also suggests possible implication and recommendation for sustainable development on fisheries programme in the respective country.

#### 6.1 Conclusion

Mekong River Commission plays an important role in the region in term of maintaining Mekong spirit for almost fifty years. It has gone through number of difficulties during the cold war. The committee was struggling in legal model, under umbrella of UN or ESCAP. The political insecurity of Cambodia has led to the formulation of Interim Mekong Committee. In 1995, the formulation has been changed. As three Indochinese countries gained fully independence and be ready to talk about socio-economic stability, changes made were: They are from bilateral agreement to multilateral agreement, from under umbrella of ESCAP to the leadership of the four riparian countries, from big-small scale project to sustainable development. The Lower Mekong Basin countries also share some similarity of the culture and identity which escort the regionalism in SEA region. However, successful development requires a comprehensive, multifaceted, and properly integrated mandate. (World Bank 2001: v). MRC development perspective is to achieved an economically prosperous, socially just and environmentally sound river basin. by focusing on the rural livelihoods and promoting local participation for self-sufficient community (MRC 2000:14). From the study mentioned above these components are widely achieved and sound sustainable.

The study suggests that the fisheries programme or MRRF II 2000-2005 of Mekong River Commission has contributed considerably positive impacts to the sustainable livelihood development of the people in Anghnamhoum and Hoinamyen village in term of natural, physical, human, financial and social impacts. Each impact has provided evidence that, details are as follows:

*Natural Capital:* MRC/MRRF II strengthens fisheries management development at Namhoum Reservoir, the Fish Conservation Zones has been closely monitored by the

patrolling team and this goes side by side with waste management. As a result, fish caught increased from 34,267 kg in 2001 (at the beginning of the project) to 100,737 kg per year in 2004. This implication of increased catch can be translated to: the prosperity of the natural resource, fishing technology is adaptable, income is increased, employment is generated, and food security is sufficient for all season in the entire community.

*Physical Capital:* Although, fishing gears are not officially provided by the MRRF II, this is a pulling factor for the community to take a lead and construct their own gears for fishing. On the one hand, it is seen that, to some extent fishing adaptable technology is commonly practiced by the fishermen.

*Human Capital:* During the five-year programme the project staff and RFMC both male and female members have received more than twenty trainings and workshops on technical and project management programme. This has built not only capacity, but a sense of morai such as: leadership, ownership, empowerment and local wisdom. In addition, both villages have eradicated illiteracy in late 1990s, generally having a good health condition. People's more understanding of the programme leads to better cooperation and coordination from the public. This also implies to the employment impacts as the skillful workers are entitle to the labour market. Once the community engaged on the stable jobs, the social problem is also reduced accordingly.

*Financial Capital:* Regarding economic factors, fisheries provides job for more than one hundred people in two villages. It was main source of income in late 1980-1990s. However, it is the second or third source of income in 2000s. This is because people have achieved progress educationally and socially. The more skillful the workers, the more choices are available. Financially, fishing is relatively decent income. It is worth US\$ 1,000 a year (professional fishers). The local markets are sufficient to accommodate fish before transported to the markets in the city. Infrastructure of two villages has facilitated the process of fish marketing more desirable.

*Social Capital:* By taking the leading and peace keeping roles at the Namhoum Reservoir, RFMC has extended the network to the project stakeholders. Furthermore, RFMC has created the solidarity, reciprocity, endowment and trust to the fishermen and villagers. These facts are obviously seen in the fisheries programme.

However, it is anticipated that the following issues can be carefully reconsidered in order to bring about sustainable fisheries management at Namhoum Reservoir.

## **6.2 Recommendations**

The most effective way of sustainable development of fisheries programme and MRRF II in LMB countries, is to design economic policies explicitly around these notions.

Villagers conceptualized that fish population has decreased in 2000s, and fish usually dies during November and December every year. Contribution for fish stocking is not standardized. The study on fish biodiversity at Namhoum reservoir is needed to identify why fish decreased. It is whether, because diseases or human activity. Rate of fish stocking contribution should be set up equally in each village. To improve effectiveness on fisheries reservoir management, the fishing cards should be introduced to the fishermen inside and outside the villages.

It should be carefully considered that any increased capital or operating or maintenance costs must be balanced by an increased catch, which translates into increased profit. Careful cost-benefit analyses, feasibility studies, and pilot projects must be undertaken to ensure that this is the case.

As fishing gear is very costly and not all types are sold locally, it is needed to support fishing gears at affordable price to motivate fishermen. In addition. Both villages founded the saving group (see Table 5.4.3 a and Table 5.4.3.b). Existing saving group could be another solution to solve fishing gear problems.

There are some concern on health issues for fishermen. Firstly, fishing at night some fishermen stay in the forest. It is simply to be fallen the victim of malaria. In the Lao PDR, malaria has consistently been among the top three causes of reported morbidity and mortality, and around 70 per cent of the population live in areas where they are at risk. (UNDP 2004: 47). Secondly, fish processing, especially fish preservation should be carried out to meet the healthy standard. If the fish is not well cooked or well prepared, villagers could get *Opistorchis Viverrini* (disease). Therefore, there is a need to provide instruction for fish

processed or conserved, for example, [this is best served before date/month/year]. The well packaged should also be provided in the near future.

Fish pricing is necessary to monitor in order to facilitate the fish marketing process transparent and sound. Beside this, there is a huge demand to initiate fund raising potential and activate the reservoir development fund as it was proposed in 2003. This may start with the activities which require minimum capital such as food processing, boat rental, and car parking lot. Moreover, it is advisable that, micro-finance could be another alternative to generate income for the community in the future.

Improving stake holders participation and public accountability in policies process is needed (World Fish Center, Review 2004: 20). Indeed, RFMC should continuously conduct raising awareness at least every quarter to the fishers and outreach, to increase social tie. At the same time, RFMC needs to observe the progress of fishermen and provide supportive response in order to maintain social ties, relationship and consolidation with the community.

### **6.3 Further Work:**

1. *Natural capital versus human activities.* It is suggested that the further research should bring about, how to balance fishing-fish stocking toward the increased population in the villages, because, promoting fisheries could cause over-fishing. The study should address, to some extent, this reservoir could serve a large population of cage culture.
2. The integrated study is required: Fishery costing study which is consisted of gears, fish stocking, harvesting, marketing, preserving and maintaining of the Namhoum Reservoir. Any increased capital or operating or maintaining cost must be balanced by an increased catch, which translates into increased profit. Careful-benefit analysis, feasibility study, and pilot project should be undertaken to ensure that this is the case.
3. Management of the collecting information at Namhoum Reservoir. The study needs to look at what would be the logical system that needs to be located at the villages, for instance the collecting number of fishermen, fulltime and part-time, reporting system, the license of fishermen. The accurate information will help policy makers provide appropriate support and policies.