Livelihood of Villagers and Potential of Inland Water Resources

in Mountainous Area of Central Vietnam

"A case study on Cotu people"

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1. Background and Objectives

Vietnam (Socialist Republic of Vietnam) is the easternmost country in the Indochina Peninsula in Southeast Asia. Cotu is an ethnic minority group residing in Central Vietnam. Cotu people had made their lives by subsistence agriculture in mountainous area of Annamitic Cordillera, however, these years they have developed a dependence on cash income. The main source of their cash income is engagement in acacia production, which has resulted in the increase of impact to environment. Thus this research set the main concern; "Is there any idea to mitigate the environmental impact of acacia production, by improving the living standard of villagers using local resources?"

This research focused on the inland water resources, as the available local resources whose production cycle is shorter than acacia. The research intended (1) to reveal livelihood of villagers and the situation of inland water resource in the village of Cotu, and (2) to propose possible way to improve the usage of such resource.

2. Study Area and Method

Field surveys were conducted for three times; in August-November 2012, February-March 2013, and September-November 2013. Study field was a village of Cotu, in Huong Lam commune, A Luoi district, Thua Thien Hue province, Vietnam. Surveys were conducted by questionnaire, interview with villagers, participatory observation, and gathering local publication.

3. Result and Discussion

Main livelihoods of Cotu people in the village were agriculture, animal husbandry, inland water fishery, inland aquaculture, hunting, and gathering. They were also engaged in cash crop cultivation, wage labor, making handcraft, and store management in order to earn cash, because they have needed cash for transportation, paying taxes, repay a loan, building new house, and purchasing food, clothing, appliance, commodities, seasoning, and luxury.

Villagers used inland water resources by conducting fishery, aquaculture, and cultivation of semi-aquatic plants like taro or morning glory. These activities were mainly aimed for self consumption and few households aimed to earn cash by selling products. In terms of aquaculture, it was revealed that the villagers faced several problems due to the location of highland; cool water is unsuited for aquaculture, and nutrient condition of stream water is disadvantageous.

Through the field works, it was observed that a few villagers kept fish in shallow pond (< 10 cm) and planted Taro (*Colocasia Esculenta*) at the same time, which resulted in good production of fish and Taro plant. As the result of measurement of water temperature and EC, it was revealed that in shallow pond the temperature can be higher than conventional pond and nutrient condition was also improved. Based on the case study, this research proposed the idea to change the shape of existing fish pond.

The livelihood of ethnic minority villagers is mid-flow of transition, and nowadays villagers have strengthen the dependency on cash income, however, this research indicated that there is still scope for improvement of their livelihood, by making use of available resources like inland water resources.