



Tropentag, October 6-8, 2009, Hamburg

“Biophysical and Socio-economic Frame Conditions
for the Sustainable Management
of Natural Resources”

Can We Still Improve Aquaculture Production in Viet Nam? Aspects of Freshwater Fish Production in Mountain Areas of Northern Viet Nam

PETRA HOLIKOVA¹, LUKAS KALOUS¹, MILOSLAV PETRYL¹, THE AHN BUI², JAN BANOUT¹, DANA POLAKOVA¹

¹*Czech University of Life Sciences Prague, Institute of Tropics and Subtropics, Czech Republic*

²*Research Institute for Aquaculture No. 1, Dept. of Aquatic Resources and Inland Fisheries, Viet*

Abstract

Aquaculture production in Viet Nam is one of the main economic activity of the country. Presently the production after rapid growth rich 2.2Mt year⁻¹ in 2007. Despite this there is still demand on fish products in local market and consumption of fish is increasing yearly. The fish consumption is traditionally high representing 19.4 kg person⁻¹ year⁻¹ in 2007 including marine fish. In the provinces of Lang Son and Cao Bang in northern Viet Nam was initiated project within the official development cooperation between the Czech Republic and Viet Nam represented on the Czech side by the Czech University of Life Sciences Prague and on the Vietnamese side by the Research Institute for Aquaculture No. 1 located in Tu Son (Bac Ninh). Northern provinces of Viet Nam are situated in mountains with restricted land area for aquaculture activities. Moreover Northern provinces are inhabited by several minorities that carry on their own habits and traditions. Both provinces are known for their natural resources especially metals that are also exploited and that can have negative environmental effect. The objective of the project is to increase fish production in both provinces from reservoirs that were constructed for irrigation purposes. The suggested methods are selected with respect to application of environment risk assessment. Two types of aquaculture were chosen: culture based fisheries and cage culture. Optimal fish stock for culture based fisheries is calculated for individual reservoirs according to biotic and abiotic characteristics. For cage culture fisheries was identified local fish species *Hemibagrus guttatus* which has high economic value and its production could improve income of cooperatives created close to reservoirs. There is cooperation with 5 selected cooperatives; two of them are located in Lang Song province and three in Cao Bang province. The part of the study is oriented to evaluate the socio-economic characteristics of minorities living in mountain areas. Promoting effective harvesting methods in the reservoirs are another activities of the project.

Keywords: Aquaculture, environment risk assessment, ethnic minorities, mountain areas, Vietnam