



Tropentag, October 5-7, 2011, Bonn

“Development on the margin”

Comparison of Shrimp Farming Systems: Evidence from Bangladesh

BROJO GOPAL PAUL, CHRISTIAN REINHARD VOGL

University of Natural Resources and Life Sciences (BOKU), Dept. for Sustainable Agricultural Systems, Austria

Abstract

Worldwide, aquaculture is continuing to be fastest-growing sectors among animal food production considering growth. Black tiger shrimp (*Penaeus monodon*) is one of the most popular species for aquaculture as it has high demand in the international market. Shrimp aquaculture is thriving sector in Bangladesh as it provides quick profit and it contributes to poverty reduction and economic development. Shrimp aquaculture has a long history in Bangladesh due to suitable agro-climatic conditions, adequate water resources and cheap labour force. The impacts of environmental and socio-economic have increasingly become a matter of concern for both government and public. The doubts about the sustainability of shrimp aquaculture are surfacing. As a reaction of negative impacts, organic aquaculture is now recognised as an alternative farming systems that can solve environmental problems and can provide safe aquatic food to the consumers. Hence, organic shrimp aquaculture has emerged as an alternative farming enterprise for farmers especially in the south-western districts of Bangladesh with the involvement of Germany based importing organisation WAB-trading international. The aim of the study is to understand the potential of organic shrimp aquaculture development in Bangladesh and to identify the farmer's characteristics and income contribution. Data was collected in 2009 from three farming systems such as organic (n= 144), conventional (n= 60) and rice-cum-shrimp (n= 60) in the Kaligonj and Shyamnagar sub-districts through questionnaire interviews, transect walks and focus group discussions. The mean productivity of organic shrimp is comparatively higher as opposed to conventional and rice cum shrimp aquaculture. In comparison to the three farming systems, monthly income, ownership of land under shrimp farming and the use of permanent wage labour have found to have a significant influence on the development of organic shrimp aquaculture in Bangladesh. Organic farmers are earning significantly higher income from shrimp due to higher production, lower production cost and higher market price. It can be concluded that the contribution of organic shrimp is positive for farmers in Bangladesh, and can be inspired policy maker to develop strategies towards sustainability of shrimp sector.

Keywords: Aquaculture, Bangladesh, organic, shrimp