

4 章 A Further Development of Inland Aquaculture: Toward Poverty Alleviation and Food Security in Rural Area

YAMAO Masahiro

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このシンポジウムには、JICA が養殖関連技術協力を実施中及び実施したアジア・アフリカ 11 カ国（インドネシア、カンボジア、コートジボアール、ザンビア、ネパール、フィリピン、ベナン、マダガスカル、マラウイ、ミャンマー、ラオス）のプロジェクト関係者（カウンターパート、養殖農家、専門家）から参加があった。国際機関からは、SEAFDEC²、FAO-RAP³、AIT-AARM⁴、TICA⁵、等の代表者が参加した。このシンポジウムにおいて基調講演を行った。

ABSTRACT

Objectives of inland aquaculture development in poor rural areas are diverse. Rural aquaculture provides job opportunities, income and nutrition, even if its production scale is small. Particularly in monsoon Asia, a small scale aquaculture could effectively integrated into agrarian economy, with the support of appropriate technologies and the provision of seeds. Freshwater fish farming supplies animal protein to poor farmers, for household consumption, and markets the volume left over to earn additional income. Through the development of integrated fish farming system, farmers effectively use their agricultural and natural resources including water. This increasingly creates job opportunities both inside and outside household economy. With a high productivity of fish farming, the poor may purchase fish at cheaper prices in local market and eliminate malnutrition. Vulnerability of rural people and community will be reduced by achieving

¹ NACA : Network of Aquaculture Centers in Asia-Pacific

² SEAFDEC : Southeast Asia Fisheries Development Center

（注 5）TICA : Thailand International Cooperation Agency

³ FAO-RAP : FAO Regional Office for Asia and Pacific

⁴ AIT-AARM : Aquaculture and Aquatic Resource Management, Asian Institute of Technology

⁵ TICA : Thailand International Cooperation Agency

food security. The integration of inland aquaculture into rural development is an effective method to raise social stability.

Many attempts to extend small-scale inland aquaculture have been made so far in many parts of Asia and some parts of Africa. According to lessons learnt from these experiences, stable seed production is the most decisive factor to develop freshwater fish farming in poor rural areas. Seed production technology, with ensuring the supply of good quality brood stock, should firmly be built. Along with an increasing number of grow-out farmers, seed production will be highly commercialized, contributing to a growth of local economy. Yet another important factor is to introduce and extend grow-out technology fitted into with the local conditions of production. Indigenous technology of fish farming can be improved by adequate extension services which train farmers to grow out economic species in less-intensive and cost-effective ways. In cases where a conventional extension service hardly works, small-scale seed farmers transfer grow-out technology to their customers while selling fingerlings. Fostering such a practical and market-oriented relationship between seed and grow-out farmers is defined “**farmer-to-farmer approach,**” which is flexibly put into practice in many parts of poor rural areas. The presentation focuses the theoretical and workable framework of this approach, by referring to the past and present experiences learnt from JICA’s development projects in small-scale inland aquaculture.