

FARM MANAGEMENT AND PRODUCTION ECONOMICS SERVICE
INLAND WATER RESOURCES AND AQUACULTURE SERVICE

Small ponds MAKE A big difference

INTEGRATING FISH
WITH CROP AND
LIVESTOCK FARMING



Food
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Foreword

SINCE THE 1970s, global aquaculture production has grown rapidly and is now among the fastest growing food production sectors in many countries. Although Asia is by far the leading region with about 90 percent of aquaculture production, the importance of aquaculture is growing in Latin America and Africa. However, in relation to the potential for its development in these regions, aquaculture production is still marginal.

Introducing aquaculture ponds in farming systems can improve the economic and ecological sustainability of resource-poor farms. Potential benefits from integrating aquaculture in smallholder farming systems include:

- enhanced rural employment and income through additional or off-season production;
- improved food security;
- increased availability of high-value protein food;
- decreased risk through diversification;
- improved water availability and nutrient recycling;
- environmental benefits through enhanced resource flows.

Despite its potential, aquaculture is an often neglected option in agricultural development. Planners and senior agricultural research and extension officers often lack the information to identify opportunities for aquaculture development and to evaluate its feasibility under specific conditions. Traditionally, aquaculture research and extension is handled by specialized institutions, operating independently from crop and livestock institutions. Successful introduction, however, requires policy-makers and planners to take sufficient account of diverse and often

location specific social, economic, cultural and environmental conditions in traditional farming systems.

As a joint effort of aquaculture and farming systems specialists, this book is designed for policy-makers in agriculture with no or little prior exposure to aquaculture. Its main focus is on extensive to semi-intensive small-scale pond aquaculture in developing countries. The main objective is to create awareness about the prerequisites and potential contributions of aquaculture in various farming systems. The book provides many examples of success and lessons learnt, and points out key considerations that are crucial to achieving the successful integration of aquaculture and agriculture on smallholder farms around the world.

It is hoped that this publication will not only increase awareness about the role of aquaculture in farming systems development but also stimulate further collaboration among aquaculture and farming systems specialists and institutions, leading to enhanced support to and development of efficient farming systems in developing countries.

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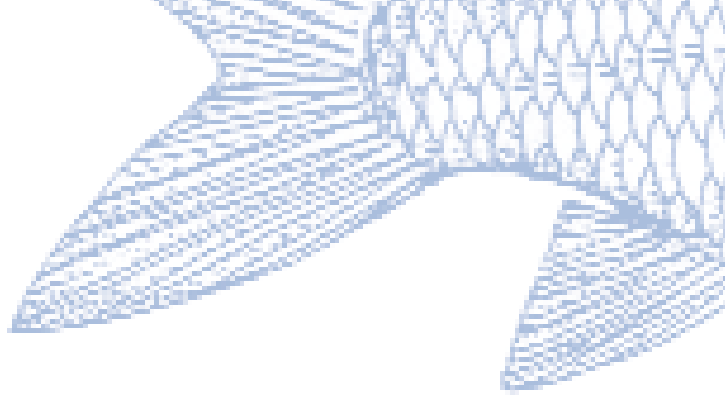


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