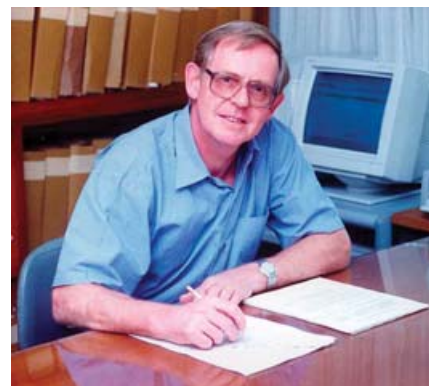


Peter Edwards writes on

# Rural Aquaculture

## Aquaculture Compendium – Case Study Component



*Peter Edwards is a consultant and part time Asian Regional Coordinator for CABI Publishing. Previously he was Professor of Aquaculture at the Asian Institute of Technology where he founded the aquaculture program. He has nearly 30 years of experience in education and research relating to small-scale inland aquaculture based also on extensive travel throughout the region.*

An important event to facilitate the development of aquaculture in general, but especially rural aquaculture, will be the publication of a new Aquaculture Compendium. The Compendium will be an electronic multimedia encyclopaedia knowledge base which will serve as a versatile reference and problem-solving/opportunity-seeking resource. It is currently being developed by CABI Publishing, a division of CAB International, one of the world's leading applied life science publishers in association with the Asian Institute of Technology (AIT), the Institute of Aquaculture, University of Stirling (IoA), the Network of Aquaculture Centres in Asia-Pacific (NACA) and the World Aquaculture Society (WAS). The Aquaculture Compendium is taking 2 years to develop, involving contributions from experts around the world, and will be published in 2005.

The Aquaculture Compendium will be the fourth one that CABI has produced, the others being Crop Protection (1999), Forestry (2000) and Animal Health and Production (2002). There will be another on Coffee, and the feasibility of others on Invasive Species, Plant Genetic Resources, and Tropical Fruits in future is being explored.

A new feature for the Compendium Programme will be case studies i.e., specific examples from real world practice. Case studies will thus link theory and practice. They will be a potential learning tool as they will cover farmer practice, successes as well as failures in research and development, and issues in aquaculture. The Aquaculture Compendium is pioneering the creation of knowledge and its dissemination.

Knowledge will be less for academics and researchers in their "ivory tower" and more for development workers and farmers at "grass root" level.

Although case study coverage will be broad, emphasis is to be given to poverty-focussed, field based rural aquaculture. Two countries are being used as pilots to devise and test an approach for a practically oriented knowledge base for aquaculture : Bangladesh and Vietnam. These countries have been chosen because fish plays an important role in their national economies yet there is still a huge unfulfilled need for aquaculture knowledge by practitioners as well as potential new entrant farmers. It is recognized that the need for knowledge is demand driven and case studies are being developed through a participatory approach to synthesize and integrate existing knowledge relating to aquaculture into the Aquaculture Compendium.

Case studies are being identified and draft material produced in-country in Bangladesh (facilitated by IoA / SUFER) and in Vietnam (facilitated by AIT) by individuals from those countries. The draft material will be edited by myself as Editor and Asia Regional Specialist for CABI before verification of content by specialists. It will then be passed to CABI for incorporation into the Compendium but, before publishing in the Compendium, it will be field tested to see if it meets the needs of intended beneficiaries. Feed-back from likely end users will be used to modify case study materials before release of the first version of the Aquaculture Compendium. The farmer or producer is the major ultimate target but in most

cases will be reached through local institutions. Examples are government, NGO and private sector extension and information providers, universities and vocational schools, and research and development projects.

Case studies will cover a range of systems in the two pilot countries : production systems, both seed and growout in inland and coastal aquaculture; integrated systems; input supply, marketing, trade and consumption; and institutional systems and governance. They will also cover a spectrum of issues or key topics such as poverty alleviation, trash fish and fish and fish meal, and international trade. An example of the latter are the problems experienced by Vietnam in marketing catfish in the United States.

There are potentially 100s if not 1000s of case studies globally. About 100 were identified in a Bangladesh Country Focus workshop held in Dhaka on 12 and 13 November 2003. A similar number is expected from the Vietnam Country Focus workshop scheduled for 13 and 14 January 2004 at the University of Fisheries, Nha Trang. As there is a vast amount of existing material, the intention is to use published / printed material as much as possible to minimize rewriting and editing and to increase coverage. Besides the Bangladesh and Vietnam pilot countries, case studies will be

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brick and cement walled for durability, accounts for 7-10% of the paddy field area while the ditch occupies 3-5% of the total area. Each hectare of paddy filed with such renovation could store up to 7,500m<sup>3</sup> of water during rainy season. The sump could be used as reservoir for watering vegetables in dry season.

Effective extension service at various levels, financial support and incentive policy by government have played important roles in the wide spread of rice-fish culture in China in the past two decades. At present, the government has formed a national fisheries extension network and extension activities are carried out at four different levels under the National Fisheries Extension Centre, namely provincial, prefecture, county and township levels. In some places, extensions officers also help to secure fish seed supply and marketing information for farmers. Rice-fish culture has been incorporated into the overall rural development plan and agriculture development plan by many local governments. In less developed and remote regions, financial support in the initial stage is a key factor to help the resource-poor farmers in paddy field renovation and first run operations. Financial support from the government is usually delivered in the forms of construction materials and seeds, etc. Tax exemption is applied to rice-fish culture in places where it is promoted poverty reduction purpose. Such incentive policy should be continued.

It is apparent that small-scale rice-fish culture can bring improved economic benefits to individual farmer families. With more than 60% of China's population occupied in agriculture, there is a need for further extension on rice-fish culture among rural communities on a mass scale, where it is possible, in order that its development can benefit the economy and well being of the whole society. Only when rice-fish culture is practiced on a mass scale will its socio-economic and environmental benefit be realized. Therefore, the need in the immediate future for aquaculture development should include rice-fish culture as one of the top agenda items.

## What's New in Aquaculture

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fish; smoked and marinated fishery products; canning; silage; packing; quality assurance, HACCP and sensory evaluation.

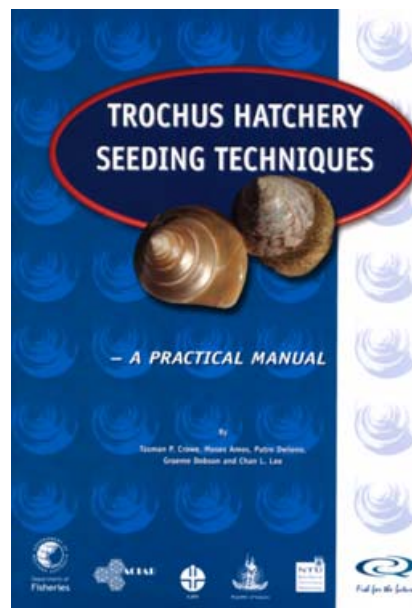
Available from: Directorate of Information and Publications of Agriculture (DIPA), Krishi Anusandhan Bhavan, Pusa, New Delhi-110012, Phone: 91-11-25731350, Fax : 91-11-25731282, <http://www.icar.org.in/icar6.htm>

*Conclusion: Recommended. This book provides a useful insight into manufacturing processes and their impact on product life, quality and nutritional value.*

## Trochus hatchery seeding techniques – a practical manual

T.P. Crowe, M. Amos, P. Dwiono, G. Dobson and C. Lee. 32pp.

This manual is written for the general public, fisheries extension officers and artisanal fishermen. It aims to provide a basic overview of the biology of trochus and its production in aquaculture facilities. It also summarises the findings and protocols of the ACIAR Trochus Reseeding Research Project in practical terms. The manual contains sections on i) the biology and life cycle of trochus, ii) hatchery production of trochus and iii) reseedling of trochus. The manual addresses practical issues such as how to spawn and raise the shellfish, selection of suitable sites, size of



trochus at release, how to improve survival and packing and handling. It includes a reference section for readers who wish to explore topics in more depth.

Available from the Australian Centre for International Agricultural Research, GPO Box 1571, Canberra ACT 2601, Australia, Tel: +61 (02) 6217 0500, Fax: +61 (02) 6217 0501, email [comms@aciarc.gov.au](mailto:comms@aciarc.gov.au) <http://www.aciarc.gov.au/web.nsf/publicationcategory?openform>

*Conclusion: A useful introductory manual and a good starting point for people wishing to become involved in trochus culture.*

## Aquaculture Compendium - case study component

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developed from published materials from our Compendium partners (AIT, IoA, NACA and WAS), and collaborators (MRC, STREAM), with discussions on-going with other potential collaborators (Deacon University, FAO, SEAFDEC, WorldFish Center). Although it is CABI's intention to cover case studies in other selected countries more fully in subsequent editions of the Aquaculture Compendium, it would benefit the first release of the Compendium if it were to have wider case study coverage. I intend to "cherry pick" systems and issues of particular relevance and interest from around the world so do contact me if you wish to contribute.

Formats and examples of case studies are in preparation. Each case study is to be brief, about 10 pages, with summarized text and bullet points. There will be a standardised table of contents for growout production systems although for other topics it will be flexible because of diverse content. Case studies will be richly illustrated with photographs, tables and graphs.

For more information contact Martin Parr at [m.parr@cabi.org](mailto:m.parr@cabi.org). Specifically for case studies, contact Peter Edwards [pedwards@inet.co.th](mailto:pedwards@inet.co.th). Contributors will receive a small honorarium to express appreciation for their input to the Compendium.