ALLIANCE™
(https://www.globalseafood.org)

Responsible Seafood ADVOCATE

Responsibility

Case studies of world shrimp farming

1 April 2000
By Claude E. Boyd, Ph.D.

Collaboration between WWF, World Bank, FAO and others aims to assess impacts, performance indicators

Worldwide case studies of shrimp farming should lead to increased understanding of aquaculture practices and impacts.

There has been considerable criticism about the adverse environmental and social impacts of shrimp farming during the past few years. However, there have been few efforts to objectively assess the environmental and socioeconomic status of shrimp farming.

Those who make their livelihood by supplying shrimp to the market should be interested to know that a large project has been initiated in which case studies will be made of shrimp farming worldwide. This project originated in funding provided by the MacArthur Foundation to the World Wildlife Fund (WWF) and the Network of Aquaculture Centers in Asia Pacific (NACA) for conducting some case studies of shrimp farming in Asia and South America. The scope of the project was enlarged when the Food and Agriculture Organization of the United Nations (FAO) agreed to participate in the project and the World Bank provided additional funding.

The objectives of the study are to document the practices currently used in shrimp farming, consider the positive and negative impacts of shrimp farming, and to suggest practices for improving environmental and socioeconomic performance.

Some in the shrimp industry may question the necessity for these studies or even assume that these studies are intended only to further expose shrimp farming in a negative way. This certainly could have been the case had there been no input of the shrimp farming sector in planning the project.

Fortunately, Jose Vincente Mogollon, a Colombian shrimp producer, made the initial contact with the MacArthur Foundation. Through the efforts of Mogollon and Dr. George Chamberlain of GAA, MacArthur Foundation was persuaded to divide their funding between Dr. Jason Clay of WWF and Dr. Michael Phillips of NACA. Jason Clay is by far the most objective of the “environmentalists” that I have met, and Mike Phillips is a strong advocate for aquaculture.

The funding from World Bank is managed by Dr. Ron Zweig, who has long experience in aquaculture development, and the FAO component of the project is supervised by Dr. Rohana Subasinghe, a specialist on aquatic animal health. I have served as an advisor to the project since its initiation and have been involved in preparing terms of references for case studies, selecting the investigators, and conducting and reviewing case studies.

Many people are involved in the preparation of the case studies to include shrimp farmers, shrimp feed manufacturers, shrimp-farming consultants, aquaculture researchers, government officials, sociologists, economists, officials of international development agencies, and of course, environmentalists and ecologists. The group truly does represent a wide range of stakeholders, and for this reason, I believe that a useful and objective product will result.

A list of the case studies is provided in Table 1.

The initial drafts of several of the case studies are being reviewed, and drafts of most case studies should be available by mid-year. All case studies should be finalized by the end of December 2000.

The methods for disseminating the results of the case studies is still under consideration. However, I suspect that the individual case studies and summaries combining the most significant findings by major topic, production method, region, etc. will be made available electronically rather than in a book form. *Shrimp News International* plans to assist with dissemination of information resulting from the studies.

The findings of these case studies should greatly increase our understanding of shrimp farming practices and impacts, and they also should reveal methods for improving the economic, environmental and social performance of shrimp farming.

I understand why some readers may be uncomfortable with this effort. Nevertheless, I sincerely believe that these case studies will be highly beneficial to the future of shrimp farming. For those doubters among you, I can only say that the only way to have any control of the results of the case studies is to be involved in the process rather than on the outside looking in.

Fortunately, many within the shrimp farming industry share this opinion, and there has been tremendous cooperation and input from the industry.

Table 1. List of proposed case studies to evaluate shrimp farming practices.

Country or Topic	Theme(s) of Case Study
African Countries	Still in planning stage.
Bangladesh	Topics include seed supply and hatcheries, BMPs for production, and social impacts.
Belize	Evaluation of a new, superintensive shrimp culture system.
Best Management Practices	A review of Codes of Conduct and Codes of Practice, and preparation of BMPs for shrimp farming based on results of the case studies.
Brazil	A financial consideration of shrimp farming in Brazil with focus on the experiences of loaning agencies.
Chemical Use	Proposed. Would focus on Ecuador and Thailand if included as a case study.
China	Shrimp farm rehabilitation with emphasis on water quality, disease, and financial requirements.
Colombia	There are three case studies which will consider the use of mangroves for effluent treatment, BMPs, and the possibilities for certification.
Disease	A thematic study of shrimp disease problems to include many shrimp-producing nations.
Ecuador	Mangrove soils, effluents, water exchange, and wild larvae utilization will be considered.
Honduras	Coastal water quality monitoring and use of zoning and planning to identify production and reserve areas.
India	Still being planned, but may deal with small farmer organizations.
Indonesia	Integrating aquaculture in Sumatra into coastal zone management.
Malaysia	Still being planned, but probably will consider conflicts among shrimp farmers and other resource users.
Mangrove	A thematic study of shrimp farming – mangrove interactions.
Mexico	A consideration of the results of lessening the regulatory requirements for obtaining coastal land.
Peru (also Colombia and Ecuador)	Farm size, management strategies, production, and profitability.
Philippines	Rehabilitation of mangrove.
Social Equity	A consideration of social equity, benefits, and social BMPs.
Sri Lanka	Implementation of Codes of Conduct and other small farmer issues.
Thailand	The two themes are (1) Code of Conduct – implementation, operating guidelines, demonstration, etc., and (2) institutional arrangements for improving shrimp farming through local organizations.
Vietnam	The two themes are (1) status of coastal aquaculture in the impoverished north central area of country, and (2) mangrove rehabilitation and implementation of management practices in the Mekong Delta.

The findings of these case studies should greatly increase our understanding of shrimp farming practices and impacts, and reveal methods for improving the economic, environmental, and social performance of shrimp farming.

(Editor's Note: This article was originally published in the April 2000 print edition of the Global Aquaculture Advocate*.)*

Author

CLAUDE E. BOYD, PH.D.

Professor
Department of Fisheries and Allied Aquacultures
International Center for Aquaculture and Aquatic Environments

Auburn University, AL
36849-5419 USA

boydce1@auburn.edu (mailto:boydce1@auburn.edu)