Sustainable Aquaculture Development for Food Security in Southeast Asia Towards 2020

Edited by
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Sustainable Aquaculture Development for Food Security in Southeast Asia Towards 2020

Proceedings of the
Regional Technical Consultation on Sustainable Aquaculture Development in Southeast Asia Towards 2020
held from 17 to 19 March 2010
in Bangkok, Thailand

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On the cover *(clockwise):* Mudcrab culture in mangroves, artwork by 12-year old Mariela Quipid, a marine fish cage, and Nile tilapia

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FOREWORD

The aquaculture sector in Southeast Asia is growing very rapidly. With population increasing fast, Southeast Asia is being confronted with concerns on the need for additional food fish for its people, a need that could not be met by capture fisheries alone. While aquaculture has the potential to fill the gap between supply and demand for food fish, it is necessary that it is developed rationally to ensure that utilization of resources is done sustainably, taking into consideration the socio-economic well-being of the fish farmers.

In 2001, the *ASEAN-SEAFDEC Millennium conference* adopted the *Resolution and plan of action on sustainable fisheries for food security for Southeast Asia* which have been used as policy framework and guiding principle in the sustainable development of fisheries and aquaculture in the region. Guided by such policy framework, the ASEAN Member Countries with support from SEAFDEC have since then made significant progress specifically in promoting sustainable aquaculture with the aim of improving the people's livelihood and attaining food security. However, emerging challenges continue to confront the sector, including new requirements of importing countries for quality and safe fish products. With the main objective of addressing such concerns, the *ASEAN-SEAFDEC Conference on sustainable fisheries for food security towards 2020 [Fish for the people 2020: adaptation to a changing environment]* would be organized by the ASEAN and SEAFDEC in Bangkok, Thailand in June 2011.

The June 2011 conference would also come up with the new decade *Resolution and plan of action for food security for Southeast Asia towards 2020*. In order to frame the aquaculture direction for the next decade and as part of the preparatory undertakings for the June 2011 conference, SEAFDEC through our Aquaculture Department based in the Philippines conducted in March 2010 the *Regional technical consultation (RTC) for sustainable development of aquaculture for Southeast Asia towards 2020*, bearing in mind the need to strike a balance between conservation and exploitation of the resources by adopting good aquaculture practices. With the participation of various stakeholder groups, the RTC was also envisaged to pave the way for defining the strategic actions towards sustainable aquaculture development that must be taken in the next 10 years.

This publication documents the results of the RTC and provides baseline information for drafting the next decade plan of action for the sustainable development of aquaculture in the region. The research areas identified during the RTC which are also included in this volume will not only help harness the aquaculture potential of the Member Countries but would also enable SEAFDEC and the Member Countries to focus their sights on areas of aquaculture R and D that could further enhance the social, economic and environmental benefits to the aquaculture sector in the ASEAN region.

Chumnarn Pongsri, *Ph.D.*
SEAFDEC Secretary-General

SEAFDEC convened the *Regional technical consultation on sustainable aquaculture development in Southeast Asia towards 2020* in Bangkok, Thailand from 17 to 19 March 2010 to work out the priority issues and R&D areas that would go into the SEAFDEC workplan on aquaculture for 2012-2020

PREFACE

Aquaculture in Asia has grown steadily, and is predicted to continue to produce the bulk of global aquaculture production. However, despite its good prospects, the aquaculture sub-sector in Asia is facing new and emerging challenges as it moves towards the goal of sustainability. Several reports claim that the social, economic and environmental challenges confronting aquaculture are staggering. The question remains whether aquaculture can meet the projected demand for fish in the next 10 years while ensuring consumer protection, maintaining environmental integrity, and achieving social responsibility. To meet the goal of sustainable fisheries and maximize its contribution to the region's national economies, the aquaculture sub-sector needs to adopt responsible and workable technologies and approaches anchored on verified scientific research.

Given the growing importance of aquaculture in Asia which now accounts for over 90% of the world's total aquaculture production, SEAFDEC/AQD and our partners have been cognizant of our role in developing and promoting responsible aquaculture technologies.

Last 17-19 March 2010, SEAFDEC/AQD, in collaboration with the SEAFDEC Secretariat, convened the *Regional technical consultation on sustainable aquaculture development in Southeast Asia towards 2020* (RTC on Aquaculture) in Bangkok, Thailand, as preparatory activity for the *ASEAN/SEAFDEC Fish for the people 2020 conference*. The RTC was held to follow-up the developments on aquaculture after the *2001 Millennium conference on fisheries* and to define the strategies for sustainable aquaculture development in the next decade.

Specifically, the RTC was held with the following objectives: (i) review the progress and development of aquaculture in the region since the *2001 Millennium conference*; (ii) assess and identify the issues (including climate change) that need to be addressed in the next 10 years to sustain fisheries development; and to (iii) define the strategies needed to address gaps and in the context of emerging opportunities and emerging challenges faced by the region.

This volume presents the outputs of the RTC on Aquaculture. The proceedings contain the papers presented at the meeting and a synopsis of plenary discussions on various themes that are relevant to aquaculture research and development in the region. The outputs of this meeting are expected to help guide SEAFDEC and its partners in coming up with the region's resolution and plan of action for sustainable aquaculture development in the next decade.

Joebert D. Toledo, *D. Agri.*
Chief, SEAFDEC Aquaculture Department

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