NACA Newsletter

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Participants in the Beijing workshop on development of aquaculture certification guidelines.

Aquaculture certification guidelines development process continues in Beijing, Washington D.C.

The final two workshops on the development of international guidelines for aquaculture certification have been held in Beijing, China, 6-8 May and Silver Springs, USA, 30 May 2008. The workshops, hosted by the Government of China and the Government of the United States respectively, are the final meetings in a series of six international expert consultations intended to build consensus and gather technical input for the development of the guidelines. Previous consultations have been held in Thailand, Brazil, India and the UK.

The Beijing workshop was conducted as a joint initiative of FAO, NACA, the Chinese Academy of Fishery Sciences and Department for Certification and Accreditation Administration of China. It brought together 65 participants, including several experts and stakeholders in aquaculture from China, and regional/international experts from FAO, NACA and SEAFDEC, from government agencies, private business, and experts involved in certification schemes and food safety. This workshop had a strong emphasis on aquaculture products from China, and looked at opportunities and challenges for implementing the certification guidelines in China towards improving aquatic production and trade of aquaculture products nationally, regionally, and globally. Many useful observations were made on the status and implementation of certification schemes for aquaculture products in China, and the outcomes provide important inputs to the process of development of the international guidelines and strategies for implementation of aquaculture certification.

The Silver Springs workshop similarly provided the opportunity for input and open discussion among interested stakeholders. This workshop focused mainly on the North America region (USA and Canada) as a major global seafood market with many diverse stakeholders in certification in aquaculture. This workshop provided the opportunity for dialogue between the secretariat, producing country representatives, and stakeholders in the North American seafood supply chain. The workshop assessed the status, opportunities and mechanisms for enhanced partnerships within supply

chains to support change, and as may be necessary, to assist aquaculture certification in producing countries. The workshop also reviewed the most recent version of the draft aquaculture certification guidelines.

The draft guidelines

The draft guidelines that have emerged cover the range of potential issues which may be considered relevant for the certification in aquaculture production including: animal health and welfare, food safety and quality, environmental integrity and social responsibility associated with aquaculture. The draft guidelines address the development of standards, accreditation and associated certification procedures.

Next steps

The next step in the consultation process will be to draft aquaculture certification guidelines will be presented by FAO to its member governments for discussion and consideration at the upcoming Fourth Session of the COFI Sub-Committee on Aquaculture, to be held in Puerto Varas, Chile in 6-10 October 2008.

More information

For more information about the workshops and the development of the guidelines please refer to the links below or contact koji@enaca.org.

The draft international guidelines on aquaculture certification (version 4.2):

- http://www.enaca.org/modules/wfdownloads/singlefile.php?cid=166&lid=945.

Summary of the consultation process for development of the guidelines:

- http://www.enaca.org/modules/tinyd10/index.php?id=1.

The report and presentations from the Beijing workshop:

- http://www.enaca.org/modules/tinyd11/index.php?id=20.

Key documents and presentations from the Silver Springs workshop can be downloaded from:

- http://www.enaca.org/modules/tinyd11/index.php?id=21.

Development of BMPs for catfish farming in Vietnam – survey of management practices

A comprehensive survey of management practices in the catfish farming sector is planned in support of the project *Development of Better Management Practices for Catfish Aquaculture in the Mekong Delta, Vietnam.* The project team has just spent a week in the delta developing and testing a set of questionnaires, including survey forms for hatchery, nursery and grow-out farms.

During the visit our project team conducted field trials to test the draft questionnaires painstakingly developed during a previous field visit from 11 to 16 May 2008. We found that the questionnaires still needed some modification in light of field conditions, but happily the cooperation of the farmers was excellent; they were eager to share information and spent hours discussing with us the highs and lows of catfish farming and their perceptions on the way forward.

We also had opportunity to meet and hold discussions with provincial aquaculture authorities with regard to future collaboration in promoting the adoption of better management practices. Overall, many parts of the industry seemed very knowledgeable about the concerns of the overseas markets in terms of BMP related issues such as traceability, pollution, use of chemicals and related disease treatments. This high level of awareness/understanding would seem to bode well for the understanding of BMPs and their uptake in Vietnam. We also learnt that government at various levels (district, province and national) must be an integral part of the process of BMP development and implementation in order to reach an acceptable co-management arrangement.

At a relatively large farm in Vinh Long province we were fortunate to observe Tesco Lotus representatives negotiating directly with the farmer. Larger processors seem to be aiming for a more vertically integrated approach as many are now starting grow-out operations to complement the processing operations. Some are even intending to also include hatchery and nursery operations. A variety of market/value chain links seem to be forming and a market chain analysis will be an important supporting component of the BMP project.

The team hopes to complete the survey of existing management practices by early August 2008, and the analysis by the end of September. Data will be presented at a national workshop for development of BMP interventions, which will be then field tested through selected demonstration farms in early 2009.

A video of the feeding of catfish is available at:

- http://www.enaca.org/modules/news/article.php?storyid=1752

Please see the project web page for an overview of the project's activities and regular updates on progress:

- http://www.enaca.org/modules/inlandprojects/index.php?content_id=1

Report by Thuy Nguyen on behalf of the project team which includes personnel of Fisheries Victoria (Department of Primary Industries, Victoria, Australia), NACA, the Research Institute for Aquaculture No. 2 and Can Tho University.

NACA extends cooperation with ADB for tsunami rehabilitation in Indonesia

NACA has extended its cooperation with the Asian Development Bank for assistance to rehabilitation of the fisheries sector in the Special Province of Nanggroe Aceh Darussalam through the ADB Earthquake and Tsunami Emergency Support Project (ETESP) Fisheries Component. The Director General of NACA signed a new contract with the Asian Development Bank on 11th March that will extend the services of NACA until January 2009. The new package will assist the Rehabilitation and Reconstruction Agency for Aceh and Nias (BRR) to complete ongoing fisheries sector rehabilitation work, and extends the scope of the services with additional assistance with aquaculture and fisheries training, policy formulation and development of livelihood centres.

To date, the NACA assistance in Aceh and Nias has reached over 20,000 coastal farmers and fishers, men and women, and their families. The new package will enable this support to be continued, but with more emphasis on capacity building and development of services to lay a foundation for longer-term recovery and growth of the fisheries sector in Aceh and Nias.

International hands-on training programme on molecular biology techniques

Fish Genetics and Biotechnology division of CIFA is contemplating to organize a hands-on training on molecular biological techniques, which would cover all the basic and essential techniques Researchers interested in molecular biology need to experience the many ways in which research is conducted in this field, and the hands-on nature of the molecular biology techniques course is an effective way to introduce them to these methods. Thus the present training is expected to serve effectively the researchers working in the area of fish genetics and biotechnology. The hands-on training programme would be conducted at CIFA, Kausalyaganga, Bhubaneswar, Orissa state, India during 13th – 27th October 2008 (tentative). A maximum of ten participants will be trained on a first-come basis. This training is suitable for researchers, scientists, government officials, teachers and students working in the field of Aquaculture/Life Sciences/ genetics/biotechnology. For a brief overview of the course contents, visit the link below or contact Dr Kuldeep Kumar, Senior Scientist in charge of Anabas, Murrel and Pearl units, CIFA, Phone: 91-674-2465446, Ext-320, 2465421, fax: 91-674-2465407 or email kuldeepkumar_kk@yahoo.co.in.

Cage aquaculture carrying capacity tool now available

A Cage Aquaculture Decision Support Tool (CADS_TOOL) is now available from the Australian Institute of Marine Science website. CADS_TOOL is a decision support system for cage aquaculture managers, developed by Dr. Halmar Halide. CADS_TOOL is coded in Java and designed to run on any computer platform. The objective of this software is to:

- Classify a site.
- Select the best site from several site alternatives.
- Calculate the sustainable holding density of a chosen site.
- Perform a basic economic appraisal of a site.

CADS_TOOL was first demonstrated at the workshop Modeling carrying capacity for tropical finfish cage culture: towards a consensus view, held in Lampung, Indonesia, in November 2007. This workshop was funded by the Australian Centre for International Agricultural Research (ACIAR), and convened by the Network of Aquaculture Centres in Asia-Pacific (NACA) and the Directorate General of Aquaculture of Indonesia.

This workshop aimed to demonstrate and compare models developed for the estimation of the sustainable development of finfish cage culture in the Asia Pacific Region, and to develop a consensus view of how to best implement such models and make recommendations for best management practice. The workshop identified a number of models currently used to calculate carrying capacity. Two of these are of particular relevance to the Asia Pacific region:

- TROPOMOD, a tropical extension of the temperate models DEPOMOD and MERAMOD, developed under PHILMINAQ.
- CADS_TOOL (Cage Aquaculture Decision Support Tool), developed under ACIAR project FIS/2003/027.

Workshop participants identified that there is a regional need for development of carrying capacity models, and suggested that ongoing work should be broadened to include study sites in two or three countries.

CADS_TOOL was developed as part of the Australian Centre for International Agricultural Research (ACIAR) project FIS/2003/027 Planning tools for environmentally sustainable tropical finfish cage culture in Indonesia and northern Australia. This project is a collaboration between the Australian Institute of Marine Science, (Dr. David McKinnon) and the Research Institute for Coastal Aquaculture, Maros, South Sulawesi, Indonesia (Dr. Rachmansyah). Dr Halmar Halide was employed by this project at the Australian Institute of Marine Science, and has now returned to Hasanuddin University, Makassar.

The CADS Tool can be downloaded from: http://data.aims.gov.au/cads/

Participants in the 6th grouper hatchery training course.

6th Regional Grouper Hatchery Production Training Course completed

A total of 19 participants from 10 countries attended the 6th Regional Grouper Hatchery Production Training Course from 5-25 May 2008 in BADC Situbondo, Indonesia. These participants came from Australia, Hong Kong SAR (China), Indonesia, India, Iran, Malaysia, Oman, Thailand, Trinidad and Tobago and Vietnam. The training course was officially opened by Dr Made L Nurdjana, Director General for Aquaculture, Directorate General for Aquaculture. The opening ceremony also attended by the Head of the Situbondo District Fisheries, and the Head of the East Java Provincial Fisheries.

The training course was a success, participants were able to conduct hands-on activities from egg harvest to larviculture. Field trips to hatchery, nursery and grow-out of grouper and marine finfish were organized to enable participants to have a broader understanding of the overall marine finfish operation in Indonesia.

InterVet provided support to the training course by sending Dr Cedric Komar, Technical Manager, to provide lectures on health management in marine aquaculture to participants.

In additional to providing the scholarships for the training course, Skretting sent its Technical Manager from the Marine Hatchery Feeds Division, Mr Nick King, to provide presentations and demonstrations of rotifer culture, rotifer and Artemia enrichments for the training course.

2008 Forum on Fisheries Science and Technology, 25-27 September 2008, Shanghai, China

The Chinese Academy of Fishery Sciences will convene the Forum on Fishery Science and Technology in Shanghai, China in September. The purpose of the forum is to provide a high-level platform for scientists in China as well as around the world to exchange their newest research fruits, to share their experiences and achievements in the development of fisheries and aquaculture with other countries. The forum has been supported by many fisheries and aquaculture scientists all over the world since 2003 and played an important role in promoting the development of fishery science and technology.

The theme of the 2008 forum is Sustainable Development and Ecological Safety of Fisheries, and will focus on the following areas:

- Aquaculture carrying capacity and ecological balance
- Ecological environment adjustment and restoration
- Eco-friendly fishing gear
- Rational exploitation and management for fisheries resources
- Seed source and germplasm improvement for aquaculture
- Food safety and fishery ecology

For more information about the forum, including registration details, download the from: http://library.enaca.org/announcements/cafs-forum-2008.pdf.

Aquaculture success stories 'write shop'

Following the recommendations of the Workshop on Research Needs to Sustaining Aquaculture to 2025 and Beyond, June 2007, held in Rayong, Thailand (sponsored by IDRC Canada), NACA, the International Institute for Sustainable Development (IISD) and the World Fisheries Trust (WFT) will document "Aquaculture Success Stories" covering a wide range of topics that were established through consensus at the Rayong Workshop.

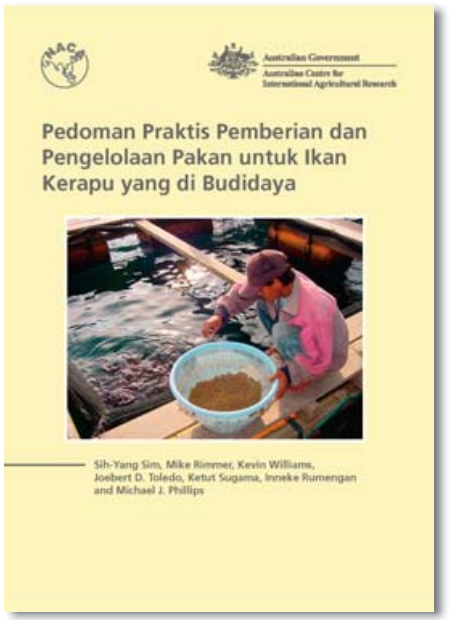
As aquaculture seeks to move to a more sustainable future and meet the challenges of globalization, it is important to consider how the lessons of the past may guide future development. The documentation and comparative analysis of success stories is the first step in this process. This activity is intended to capture the trends and lessons learned that have driven the rapid evolution of aquaculture (augmented with comparable cases on small scale fisheries). The success stories will form part of the strategy for guiding further actions intended to influence policy development and set a new course for the sustainable development of aquaculture.

Our plans include the development of a series of 'influencing strategies' to share the lessons learned from the documentation and analysis of the success stories. This will include the production of a variety of materials tailored to reach out to the identified target audiences and decision makers and active, targeted dissemination.

The success stories will be prepared at a "write shop" to be conducted from 22-27 September in Thailand. Arrangements are being made to liaise with selected experts in the region to cooperate in this activity, and it is expected the initial phase of the activity to be completed in the course of 2008.

For more information about the write shop, contact sena.desilva@enaca.org. The report of the June 2007 Rayong workshop, which serves as background material, is available for download at: http://www.enaca.org/modules/wfdownloads/singlefile.php?cid=189&lid=902.

Bookshelf: New publications for free download



Marine finfish aquaculture publications translated into Bahasa

Two of NACA's most popular marine finfish publications are now also available in Bahasa Indonesia:

A Guide to Small-scale Marine Finfish Hatchery Technology (Panduan Teknologi Hatcheri Ikan Laut Skala Kecil)

This guide provides an outline of the requirements to establish a small-scale marine finfish hatchery, particularly the economic aspects. It is intended to provide sufficient information for potential investors to decide whether investment in such ventures is appropriate for them. The guide provides some basic technical information in order to give an indication of the level of technical expertise necessary to operate a small-scale marine finfish hatchery. However, it is not intended as a detailed technical guide to the operation of small-scale hatcheries. Additional resources, such as training courses in marine finfish hatchery production, are available and these are listed in this document. This guide has been written by a team of experts in marine finfish aquaculture who have been involved in a multinational collaborative research project since 1999. Development of small-scale hatcheries may be more appropriate where there are existing marine hatchery operations, e.g. for shrimp or milkfish. By definition, small-scale hatcheries do not have broodstock facilities, so a supply of fertilised eggs (usually from a larger hatchery) is essential. Access to fertilised eggs and experienced hatchery staff will limit the application of small-scale hatchery technology. Despite this, there is considerable potential for this technology to be widely adopted. Download from:

http://www.enaca.org/modules/wfdownloads/singlefile.php?cid=75&lid=582.

A Practical Guide to Feeds and Feed Management for Cultured Grouper (Pedoman Praktis Pemberian dan Pengelolaan Pakan untuk Ikan Kerapu yang di Budidaya)

Groupers are carnivorous and consequently prefer feeds high in fish protein. Most farms in Asia still rely on what is commonly termed 'trash fish'. Despite the apparent abundance and availability of 'trash' fish in many areas, there are some issues and problems related to its use in fish farming. To provide farmers with a viable alternative to feeding trash fish to grouper, the Australian Centre for International Agricultural Research (ACIAR) supported project FIS/97/73 Improved hatchery and grow-out technology for grouper aquaculture in the Asia-Pacific region from 1999 to 2002, with one component to develop formulated feed for grouper aquaculture. The experiences of the project have

been synthesized into this Practical Guide to Feeds and Feed Management for Cultured Groupers to promote the use of formulated feeds; promote reduction in the use of 'trash' fish in grouper aquaculture; and to assist farmers in making more efficient use of feeds and feed resources. This guide explores new and better farming practices making use of formulated feeds, as well as technical aspects of feed storage and quality control, management of feeding including weaning of groupers onto formulated feeds and economic considerations. Download from:

http://www.enaca.org/modules/wfdownloads/singlefile.php?cid=77&lid=583.

Vietnamese translation of culture-based fisheries book

ACIAR and NACA are pleased to make available a Vietnamese translation of the book "Better Practice Approaches for the Development of Culture-based Fisheries in Asia". The book is also available for download in English and Lao (see the link below).

The primary objective of this manual is to provide guidelines for attaining better-practices in culture-based fisheries, an emerging practice in rural areas in the Asian region. It deals will the principles of culture-based fishery practices, primarily based on relatively long-term experiences in Sri Lanka and Vietnam. It is not only targeted at researchers per se, but also at stakeholders at the grass root levels, as well as planners and policy developers, particularly those of Asian nations embarking on culture-based fisheries as a strategy to enhance fish food production in rural areas. As such, the manual does not deal with the dynamics and interactions of stocked populations. It deals with the gross factors that are applicable to improving fish yields and therefore revenue; and sustaining culturebased fisheries as a development activity in the long-term. The manual addresses the constraints to culture-based fisheries development in the region, and provides guidelines on ways and means of overcoming such constraints. Download from:

http://www.enaca.org/modules/wfdownloads/singlefile.php?cid=193&lid=944.

New free publications from FAO

FAO has released several great new publications for free download this quarter. Download them from the links below:

Economics of aquaculture feeding practices in selected Asian countries. FAO Fisheries Technical Paper No. 505, edited by Mohammad R. Hasan, 205p. Download from:

- http://www.enaca.org/modules/wfdownloads/singlefile.php?cid=12&lid=941.

Assessment of freshwater fish seed resources for sustainable aquaculture. FAO Fisheries Technical Paper No. 501, edited by Melba G. Bondad-Reantaso, 2007, 628p. Download from:

- http://www.enaca.org/modules/wfdownloads/singlefile.php?cid=12&lid=930.

Comparative assessment of the environmental costs of aquaculture and other food production sectors. FAO Fisheries Proceedings No. 10, Edited by Devin Barley, Cecile Brugere, Doris Soto, Pierre Gerber and Brian Harvey, 2007, 241p. Download from:

- http://www.enaca.org/modules/wfdownloads/singlefile.php?cid=200&lid=927.

Study and Analysis of Feeds and Fertilizers for Sustainable Aquaculture Development. FAO Fisheries Technical Paper 497, Edited By Mohammad R. Hasan, Thomas Hecht, Sena S. De Silva, Albert G.J. Tacon, 2007, 507 pp. Download from:

- http://www.enaca.org/modules/wfdownloads/singlefile.php?cid=12&lid=925.

Assessment and communication of environmental risks in coastal aquaculture. GESAMP (IMO/FAO/UNESCO-IOC/UNIDO/WMO/IAEA/UN/UNEP Joint Group of Experts on Scientific Aspects of Marine Environmental Protection) 2008, Rome, FAO. Reports and Studies GESAMP No. 76: 198 pp. Download from:

- http://www.enaca.org/modules/wfdownloads/singlefile.php?cid=73&lid=943.

Network of Aquaculture Centres in Asia-Pacific

Mailing address:
P.O. Box 1040,
Kasetsart University
Post Office,
Ladyao, Jatujak,
Bangkok 10903,
Thailand

Phone +66 (2) 561 1728
Fax +66 (2) 561 1727
Email: info@enaca.org
Website: www.enaca.org

NACA is a network composed of 17 member governments in the Asia-Pacific Region.