



## Success Stories in Asian Aquaculture

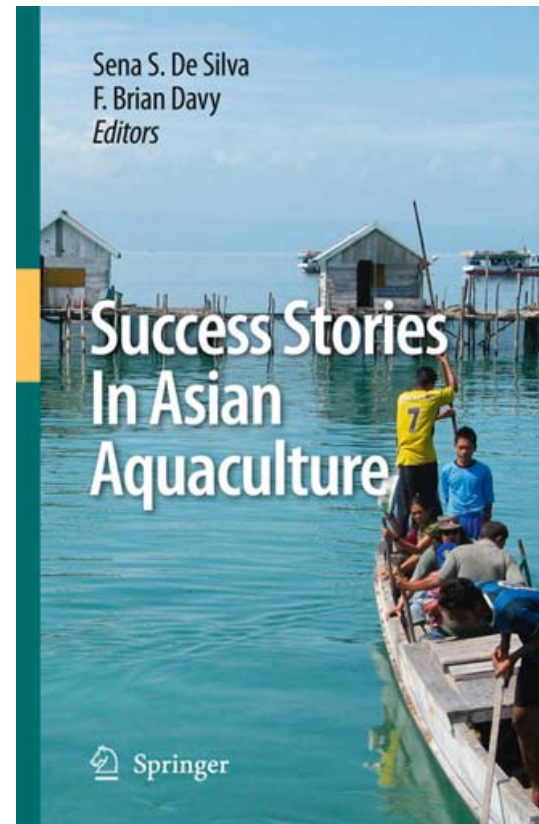
NACA is pleased to announce the release of a new flagship publication, *Success Stories in Asian Aquaculture*. The stories in this book reflect the unique nature of Asian aquaculture, providing first-time insight into how and why it has become so successful. Overall, the book demonstrates how the resiliency, adaptability, and innovation of small-scale aquaculture farmers have been crucial to this success. It also places aquaculture development in Asia into a wider global context, and describes its relationship to natural systems, social conditions, and economics. The book is unique in its in-depth presentation of primary research on Asian aquaculture, and in demonstrating how aquaculture can have a lasting positive impact on livelihoods, food security, and sustainable development.

This book will appeal to a wide range of readers. The introduction and conclusion give an excellent general overview of Asian aquaculture, and

the individual case studies provide a wealth of new information for specialist readers. Researchers, development workers, and decision-makers, in particular, will be interested in how the Asian experience might be used to strengthen aquaculture development more generally and in other parts of the developing tropics of Latin America and Africa.

*Success stories in Asian Aquaculture* is edited by by Sena S. De Silva, Director General of the Network of Aquaculture Centres in Asia-Pacific, and F. Brian Davy, Senior Fellow at the International Institute for Sustainable Development in Canada.

A PDF version of the book will shortly be made available for free download from the NACA website. You can order hard copies of the book online from the Springer website at the link below: <http://www.springer.com/environment/aquatic+sciences/book/978-90-481-3085-6>



## Twelfth Regular Session of the Commission on Genetic Resources for Food and Agriculture

Aquatic genetic resources were included in the portfolio of the Commission on Genetic Resources for Food and Agriculture (CGRFA) only in 2007, at its 11th regular session held in June 2007. NACA is pleased that it was involved in the immediate follow-up activities that principally involved the coordination of the preparation of the document, *The Use and Exchange of Aquatic Genetic Resources in Aquaculture: A Synthesis*. This synthesis will facilitate the Commission's consideration of access and benefit sharing of genetic resources for food and agriculture, which will be a major issue that will be deliberated at its Twelfth Regular Session in Rome, October 2009, and is also available on the web site of the CGRAF (Background Study Paper No 45).

The synthesis on aquatic genetic resources is based on reviews on seven species/ species groups of aquaculture importance which were presented and discussed at a consultation in Chonburi, Thailand in April 2009. These were:

- Common carp *Cyprinus carpio* (Jeney, Z. and Zhu, J.).
- Pacific salmon *Oncorhynchus* spp, and Atlantic salmon *Salmo salar* (Solar, I.).
- Nile tilapia *Oreochromis niloticus* (Eknath, A. and Hulata, G.).
- Tropical catfish *Clarias* spp (Na-Nakorn, U. and Brummett, R.) and striped catfish, *Pangasianodon hypophthalmus* (Nguyen, T.T.T.).
- Marine shrimp (Benzie, J.).
- Selected molluscs, (Guo, X.).
- Emerging aquaculture species with food, ornamental and ecotouristic value (Nguyen, T.T.T., Rimmer, M.J., Davy, F.B., De Silva, S.S.).

The synthesis document is available for download from: <ftp://ftp.fao.org/docrep/fao/meeting/017/ak527e.pdf>

## Training of trainers programme will strengthen small scale farmer competitiveness in ASEAN



Participants of 'Training of trainers' programme from five Asian countries.

NACA is presently implementing a project on *Strengthening capacity of small holder ASEAN aquaculture farmers for competitive and sustainable aquaculture*, supported by the ASEAN Foundation. The project aims to improve the competitiveness and sustainability of farmers through the development and adoption of better management practices. The project is working with five countries and five commodities, ie. Cambodia (snakehead culture), Indonesia (grouper and seabass culture), Philippines (seaweed culture), Thailand (cage culture of tilapia) and Vietnam (shrimp culture).

The national teams in each country have conducted training needs assessments to identify production issues associated with each commodity practical measures that farmers could adopt to increase their efficiency and sustainability. The next objective of the project is to spread the message and to assist small scale farmers to adopt these 'better management practices' (BMPs).

Accordingly, the project conducted a 'Training of Trainers' programme from 3-7 August 2009 at the NACA Secretariat in Bangkok. The course was opened by Ms Ivy Adan, Head of Programmes for the ASEAN Foundation. The 17 trainees, including the national teams, participated in

24 lecture and discussion sessions. The training covered a wide range of social, technical and extension issues, practical experiences in adoption of BMPs amongst small scale farmer groups in the region and the findings of the national teams. Participants also discussed approaches to facilitate the dissemination and adoption of BMPs with reference to the target commodities. Dr. Filemon A. Uriarte, Jr., Executive Director of the ASEAN Foundation presided over the closing ceremony for the Training of Trainers programme.

The next steps for the project will include the development of practical manuals and other extension materials, which will be used to support forthcoming training of small scale farmers in the five target countries towards the end of 2009. This will be followed by a regional workshop in early 2010 to allow farmers to share experiences and to introduce the BMPs developed under the project to other countries in the region.

NACA would like to express its sincere gratitude to the ASEAN Foundation and its staff for their support and assistance to make this project possible. For more information, please visit the project webpage at: [http://www.enaca.org/modules/bmpprojects/index.php?content\\_id=13](http://www.enaca.org/modules/bmpprojects/index.php?content_id=13).



Executive Director of the ASEAN Foundation, Dr Uriarte, awarding certificates to participants in the training.

### Sign up for our email newsletter service!

Latest network news and publications

Sign up for the NACA email newsletter service and you will receive personal updates delivered to your mailbox once a month.

[Subscribe here](#)

[www.enaca.org/modules/newsletter](http://www.enaca.org/modules/newsletter)

## Workshops on development of better management practices for catfish farming in the Mekong Delta organised in Vietnam

The two workshops on the *Development of better management practices for catfish farming in the Mekong Delta organised in Vietnam* were organised at the Dong Thap Department of Agriculture and Rural Development, Cao Lanh district, Dong Thap Province and the Can Tho University, Can Tho City on 5-6 and 8-9 October 2009, respectively.

The two meetings brought together catfish farmers, district and provincial officials, representatives from the Ministry of the Agriculture and Rural Development (MARD), processors and other stakeholders associated with the sector from the nearby provinces. At the meeting, draft better management practices (BMPs) for three sub-sectors, ie. catfish growth-out, hatchery and nursery operations, were presented and discussed in detail and the responses of the stakeholders obtained. The draft BMPs had been prepared based on an extensive survey of industry practices under the project *Development of Better Management Practices for Catfish Aquaculture in the Mekong Delta*, funded by AusAID.

At both meetings there was a very intense stakeholder participation and there was consensus that adoption of BMPs by sector is an obvious way forward to attain sustainability and meeting the modern certification requirements. The Vietnamese stakeholders were impressed by the achievements gained through formation of collaborative clusters of small scale shrimp farmers in India. It was appreciated that adoption of suitable BMPs and a cluster-based approach enables small scale farmers not only to make better profit but also act responsibly to minimise environmental impacts, attain sustainability and meet certification requirements.

The Vietnamese farmers volunteered to adopt BMPs on a trial basis and in some cases such farms would act as demonstration farms. The draft BMPs will be now be revised based on the stakeholder responses and will be ready for implementation of BMP trials in four provinces by January 2010. The draft BMP guidelines will be supplemented with suitably prepared brochures (growth-out, seed production and nursing) for easier comprehension by farmers.

On the completion of the BMP trials, a national stakeholder workshop including representation of MARD will be held in October 2010 when the final adoption of BMPs for wider dissemination and strategies for implementation of cluster approach will be decided upon.

For more information, please view the project webpage at the link below:  
[http://www.enaca.org/modules/inlandprojects/index.php?content\\_id=1](http://www.enaca.org/modules/inlandprojects/index.php?content_id=1)

The draft BMP document is also available for download from:  
<http://library.enaca.org/inland/projects/draft-catfish-bmps-09.pdf>



*Participants of the meeting in Dong Thap.*



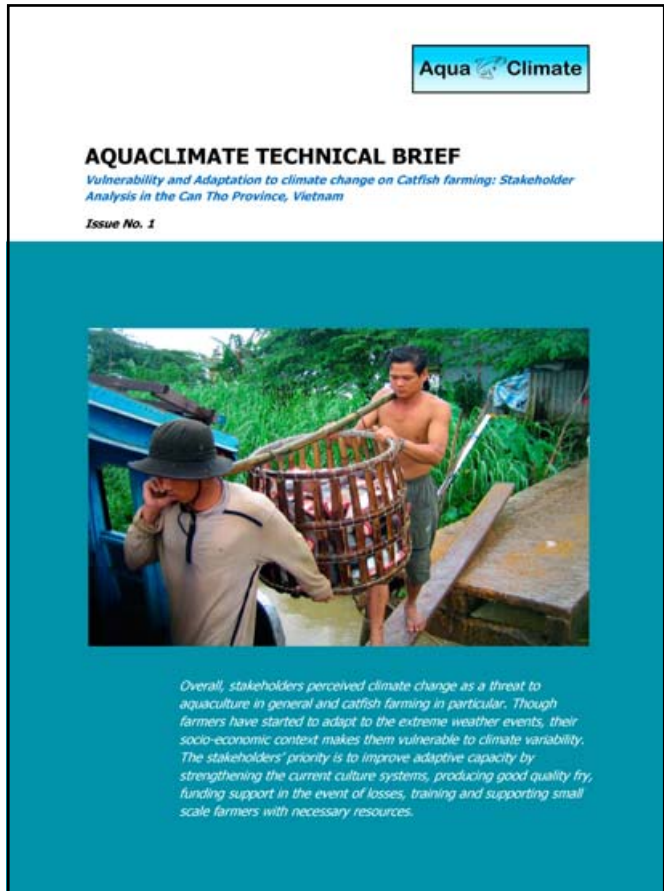
*A participant making comments on the draft BMPs.*

## Vulnerability & adaption to climate change impacts on catfish farming - case study Can Tho, Vietnam

The Mekong Delta is the 'food basket' of Vietnam, and is of significance both from a production (volume and economic) and livelihood view points. Vietnam is prone to extreme weather events. Cyclones regularly impact Vietnam raising sea levels and sending saline storm surges up estuaries. Flooding is also a common occurrence. Vietnam, particularly the Mekong delta is highly vulnerable to climate change especially extreme weather events.

Catfish farming on the Mekong Delta is one of the world's fastest growing aquaculture sectors and is Vietnam's largest aquaculture sector by both volume and value. Catfish (*Pangasianodon hypophthalmus*) is a freshwater fish native to the Mekong river system (including Vietnam) that is cultured almost entirely in deep earthen ponds at very high density. The catfish farming industry and associated industries contributes significantly to the livelihoods of the local population.

On 21 June 2009 the AquaClimate team held a vulnerability and adaption to climate change on catfish farming stakeholder workshop and focus group meeting in Can Tho, Vietnam. Stakeholders including catfish farmers in general expressed that climate change is a serious threat and needs to be addressed in an integrated manner. The main changes they observed were: shift in weather patterns, higher temperatures, early rains, floods, saline water intrusion and frequent typhoons. Suggestions from farmers to address extreme weather events included, producing good quality fry, developing new culture systems, building dykes, livelihood diversification, training and awareness workshops and financial support to farmers. Sustaining catfish production in the Can Tho Province is crucial for the large number of farmers who are dependent on it for their livelihoods. Stakeholders are willing to co-operate to address future threats from climate change. The intention to co-operate may be strengthened by improving the existing institutional and policy frameworks.



More information is given in the Technical Brief Vulnerability and Adaptation to climate change on Catfish farming: Stakeholder Analysis in the Can Tho Province, Vietnam, available for free download from:

<http://www.enaca.org/modules/wfdownloads/singlefile.php?cid=210&lid=986>



## NACA welcomes Dr Nigel Aberly, Coordinator of the Adaption of aquaculture to climate change project

NACA is pleased to welcome Dr Nigel W. Aberly, who joined NACA on 5 August 2009 to take up a post coordinating the project on Strengthening adaptive capacities to the impacts of climate change in resource-poor small-scale aquaculture and aquatic resources-dependent sectors in the south and south east Asian region. Dr Aberly has previously worked in fisheries and aquaculture policy development and administration, fisheries resource management planning and fisheries and

aquaculture research and development for the Fisheries Victoria Division of the Department of Primary Industries in Victoria, Australia. Fisheries Victoria is co-investing in Dr Aberly's post at NACA through the Aquaculture Futures Initiative, a component of the Victorian Government's Future Farming Strategy.

Dr Aberly can be contacted through [nigel.aberly@enaca.org](mailto:nigel.aberly@enaca.org).

## EU supports better management practices for responsible aquaculture

The demand for quality, responsibly produced and certified aquaculture products is predicted to increase substantially in coming years and the most practical, economical and acceptable way to achieve these goals is for small scale farmers to adopt better management practices (BMPs), collectively as a cluster, in a given locality. BMPs in the aquaculture context outline norms for responsible farming of aquatic animals. BMP's are management practices, and implementation is generally voluntary; they are not a standard for certification. However, implementation of BMPs will help to achieve compliance with standards set by international agencies, certification bodies and trading partners.

NACA's experience with the promotion of BMPs in India, Indonesia, Thailand and Vietnam clearly indicates that they improve the quantity, safety and quality of products taking into consideration animal health and welfare, food safety, environmental and socio-economical sustainability. They also assist farmers to improve their income through better crop outcomes and cost reductions achieved through more efficient use of resources.

The European Commission, under the 7th Framework Programme (FP7) Cooperation Theme 2: Food, Agriculture, Fisheries and Biotechnologies, has approved funding (Euro 0.97 million) for the project "ASEM Aquaculture Platform", coordinated by Ghent University, under the leadership of Professor Patrick Sorgeloos. The project involves nine participating European and Asian institutions.

### Better management practices

The project's major aim is to develop a strong 'Community of Practice' to reconcile ecosystem and economic system demands to promote and consolidate sustainability in aquaculture development in both regions. Specific actions include; 1) validation of first round recommendation; 2) translating key themes into concrete actions; 3) facilitating industry interaction; 4) building and exchanging knowledge and its application. The project will be conducted through well defined ten work packages.

NACA plays a crucial role in the project's planned initiatives and will lead the work packages on, "Development and validation of commodity-specific Better Management Practices (BMPs) for smallholder farmers in the Asia-Pacific region", and on "Communication". The objectives of these two work packages are, respectively:

1. To promote wider adoption of BMPs for key aquaculture commodities in NACA member countries, thereby ensuring sustainability of this important food production sector and improving the livelihoods of the stakeholders. This package will have two facets:

Commodities for which BMPs are already developed and being implemented (e.g. shrimp) where the focus will be to assess the impacts of BMP implementation and developing strategies for scaling up at the national and regional levels.

Commodities for which BMPs are presently being developed (e.g. striped catfish) where the focus will be on validation and implementation of BMPs.

2. The objective of the work package is to increase the understanding of each others' sectoral characteristics by improving the flow and impact of information between EU and Asia and from ASEM platform to major stakeholders including society at large.

The above grant enables NACA to continue its work on the development, adoption and improvement of BMPs on commodities and farming systems that it commenced nearly a decade ago. In this regard NACA will continue to cooperate with national governments, regional and international organizations. The project is expected to further facilitate and consolidate the position that adoption of BMPs is the most useful gateway to achieving sustainability, food quality and food safety in aquaculture, and most of all ensuring that small scale, farmer and family owned, operated and managed aquaculture systems are able to remain competitive in the modern market place.

### Global Conference on Aquaculture 2010

9-12 June, Bangkok, Thailand

In 1976, FAO held the first ever global conference on aquaculture, the Kyoto Conference, which explored opportunities for aquaculture development and triggered the recognition of aquaculture as a significant food production sector. Ten years after the millennium conference, with aquaculture now providing nearly 50% of global food fish supplies, FAO in partnership with NACA and the Thai Department of Fisheries, are organising the Global Conference on Aquaculture 2010, to evaluate where the sector stands today and face the challenges and opportunities ahead.

Plenary lectures together with six regional reviews and one global synthesis will set the scene for six thematic sessions and associated expert panel discussions on key aspects of aquaculture development and management in the coming decades. The conference will provide a global forum to build consensus to advance sustainable aquaculture development and contribute to the Millennium Development Goals. Have your say on the future of aquaculture development: Join us in Bangkok from 9-12 June 2010. For more information, visit:

<http://www.aqua-conference2010.org>

## Myanmar delegation visits CIFA to study aquaculture

After recent visits from Sri Lanka and Bangladesh, a Myanmar farmers' delegation has travelled to the Central Institute of Freshwater Aquaculture, Bhubaneswar to study aquaculture. A 15-member delegation led by U Than Lwin arrived at Bhubaneswar on 14 July 2009 on an eight day visit to CIFA and Kolleru Lake, Andhra Pradesh, to study the remarkable aquaculture development in India, the second highest aquaculture producer in the world, next to China. The team included 11 members of the Myanmar Fish Farmers Association, 2 members each from Myanmar Fisheries Federation and Aquaculture Division of Myanmar Fisheries Department. Welcoming the delegation at CIFA, Director of the Institute, Dr A.E. Eknath said that both Myanmar and India have many things in common and a long history of cooperation. He expressed happiness that such a large delegation has sought CIFA's technology to help boost its fish production. Giving a comprehensive and informative account of institute's overall growth, Dr. Eknath pinpointed the remarkable achievement of CIFA in development of Jayanti rohu through selective breeding techniques. The team evinced keen interest in this improved variety of rohu, which gives 17% higher yield per generation than normal rohu. 'Our main objective in coming here is to learn the best carp (Jayanti) technology available here to increase fish production in our own country', said Mr U Than Lwin, the president of Myanmar Fish Farmers Association. 'Our endeavour would be to increase both quality and quantity of fish without destabilising our environment', he added.

The members of delegation interacted with all the heads of division and other nodal officers of CIFA. Mr U Hla Win, a retired Deputy Director General of Myanmar Department of Fisheries, who is presently the adviser of Myanmar Fisheries Federation made a presentation narrating the overall fisheries activities in Myanmar. 'Myanmar has invaluable and appreciable fishery resources with diversity in marine and freshwater fish species which need to be effectively exploited for raising production capacity', said Mr Win while underlining the importance of high technologies in building a modern, developed and economically strong nation. Dr Kuldeep Kumar, senior scientist took the delegation on a guided tour of different culture and production facilities in CIFA farm. Aquaculture specialists stationed at different places explained to the guests about the advanced technologies and ongoing research activities and took pleasure in answering their queries. The sprawling freshwater aquaculture farm of CIFA, the largest in the world provided an excellent backdrop for the field programme.

The delegation later visited a number of aquaculture farms and hatcheries in Kolleru lake area of Andhra Pradesh, the carp pocket of India. They had series of interactions with the progressive fish farmers, entrepreneurs and hatchery owners in the area. The delegation studied the whole process of fish production and marketing chain in Kolleru operating through forward linkages of improved post-harvest services like packaging, processing, storage, transport, marketing and backward linkages of providing inputs like seeds, fertilisers, chemicals, feed and aquaculture machineries; which has scripted the success story of



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](mailto:info@enaca.org)  
Website: [www.enaca.org](http://www.enaca.org)

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



**Copyright NACA 2009.**

Published under a Creative  
Commons Attribution license.  
You may copy and distribute this  
publication with attribution  
of NACA as the original source.

aquaculture in the region. 'We are here to learn modern methods and techniques from this part of the world', opined Ms Thuza Maung, a delegation member. The delegation had some more interactions with members of trade bodies with an aim to gain understanding of the whole production and marketing process. Before leaving for Myanmar on 21 July, the delegation expressed hope for transfer of knowledge, better linkages and cooperation, capacity building through training and exchange programs, and strengthen bilateral ties through participation in various programs.

### Buy our books online!

NACA has offered free downloads of all its publications in electronic form from the website for years. In fact we've given more than 650,000 publications, for the benefit of farmers and scientists working in our member countries.

However, some people prefer hard copies and for them, we have good news. You will now be able to buy of selected NACA publications online from our authorised retailer with 2CheckOut.com! Browse the book catalogue, please visit:

[www.enaca.org/shop](http://www.enaca.org/shop)