

# SEAFDEC AQD Matters

Newsletter of the SEAFDEC Aquaculture Department (AQD), Tigbauan, Iloilo, Philippines



Over 550 participants comprising researchers and technical officers from 23 countries attended the technical session of the ASEAN-SEAFDEC conference. They reviewed the issues on fisheries and made the recommendations that the government ministers eventually adopted. Above left are some of the resource persons (including AQD Chief Dr. Joebert Toledo and NACA Director General Dr. Sena de Silva) in the aquaculture session which AQD organized on 14 June. Above right is SEAFDEC Secretary-General Dr. Chumnarn Pongsri and Thai Minister of Agriculture & Cooperatives H.E. Mr. Theera Wongsamut at the Lao PDR booth after the inauguration ceremony on the first day

## It is five themes for aquaculture and for AQD

The recommendations of the *ASEAN-SEAFDEC Conference on sustainable fisheries for food security towards 2020* no longer came as a surprise to the SEAFDEC family, including AQD. After all, the conference held 13-17 June 2011 in Bangkok,

Thailand was the culmination of a consultative process that began more than a year ago with technical consultations involving the SEAFDEC Secretariat and Departments, ASEAN-SEAFDEC member-countries and collaborating institutions.

As officially adopted by senior officials and ministers responsible for fisheries in the ASEAN, the document *Plan of action on sustainable fisheries for food security for the ASEAN region towards 2020* detailed the work on eight areas:

- (1) enhancing governance in fishery management;
- (2) sustainable aquaculture

Senior officials and ministers of ASEAN-SEAFDEC member-countries (below); the Bureau of Fisheries & Aquatic Resources team (SEAFDEC National Coordinator for the Philippines Dr. Jonathan Dickson and then BFAR officer-in-charge Mr. Gil Adora) at the Philippine booth (right)



AQD Chief Dr. JD Toledo (second from left) with AQD's past and present deputy chiefs (L-R) Dr. Koichi Okuzawa, Dr. Hiroshi Ogata and Dr. Teruo Azuma



development; (3) ecosystems approach to fisheries; (4) postharvest & safety of fish & fishery products; (5) emerging requirements for trade in fish & fisheries products; (6) climate change adaptation & mitigation towards food security; (7) livelihood among fishing communities & prospects for employment in fisheries-related activities; and (8) sustaining food supply from inland fisheries.

Themes 1 & 8 were organized by MFRDMD, the sister department of AQD in Malaysia; theme 2 by AQD; themes 3, 6 & 7 by TD in Thailand; theme 4 by MFRD in Singapore; and theme 5 by the Secretariat.

Dr. Chumnarn Pongsri, on the other hand, said that fisheries is not a stand-alone sector, and was concerned with future human resource deficiency. He said it seems harder to convince people to enter fishing or fishfarming.

The full text of the joint statement of ministers adopting the resolution & plan of action may be viewed at the AQD website ~ [www.seafdec.org.ph/category/news-archive/](http://www.seafdec.org.ph/category/news-archive/).

Talking of fishers and fishfarmers, WorldFish Center Director-General Dr. Stephen Hall noted that small-scale fishers, fisherfolk and small-holder fish farmers are not poor because they do not have money; they are poor because they are marginalized, like the women in fisheries, and have no access to education.

Among the voices heard at the conference was that of the ASEAN Secretariat. Speaking on behalf of its Secretary-General, Mr. Suriyan Vichitlekarn emphasized that the conference is an important process of community building as countries integrate into an intra-ASEAN market by 2015. He described ASEAN-SEAFDEC as a “historical, strategic partnership” that is critical to Southeast Asia’s dream of “one vision, community, one identity.”

“What SEAFDEC must do,” said Dr. Peter Edwards of the Thailand-based Asian Institute of Technology, “is go beyond field-testing its technologies, especially on aquaculture, and extend knowledge directly to stakeholders.”

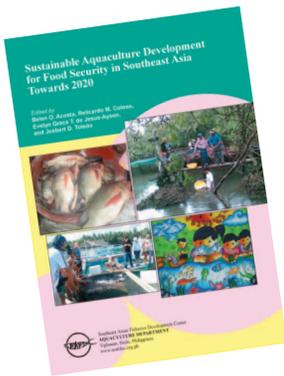
AQD very much agreed.

– By MT CASTAÑOS  
with photos by MTC and SB ALAYON

SEAFDEC Sec-Gen

### Why the themes and how much work was done?

The change to thematic areas for SEAFDEC began in 2001 during the *Fish-for-the-People* conference organized by ASEAN and SEAFDEC. The progress along themes was assessed nine years later, at the regional technical consultations in 2010; and for aquaculture, the proceedings were published by AQD in a 169-page volume *Sustainable aquaculture development for food security in Southeast Asia towards 2020* that is edited by Belen Acosta, Relicardo Coloso, Evelyn Grace Ayson and Joebert Toledo. Email [bookstore@seafdec.org.ph](mailto:bookstore@seafdec.org.ph) for a copy.



### We eat better, we live better

AQD Chief Dr. JD Toledo (at left) was the master-of-the-panel and co-chair of the aquaculture session (below right) with FAO/RAP’s Mr. Miao Weimin and WorldFish Center’s Dr. Michael Phillips. The AQD Chief also presented the aquaculture summary in the overall plenary (below left) on day five for adoption of the report. Nearly a hundred participants registered for the aquaculture session. The aquaculture sub-themes included: (1) meeting social & economic challenges; (2) quality seed production; (3) healthy & wholesome aquaculture; and (4) maintaining environmental integrity through responsible aquaculture. One more sub-theme, on climate change, was added to the aquaculture workplan



### Multi-tasking staff

AQD and BFAR staff were hosted by Philippine Ambassador to Thailand Hon. Linglingay Lacanlale (seated, third from right) at a dinner in her Bangkok residence on 16 June

Fifteen AQD staff served as **presentors** (Dr. Nerissa Salayo for meeting socio-economic challenges in aquaculture, Dr. Ma. Rowena Eguia for quality seed production, Dr. Relicardo Coloso for healthy & wholesome aquaculture, and Dr. Evelyn Grace Ayson for responsible aquaculture); **panelists** (Mr. Renato Agbayani, Dr. Felix Ayson); **rapporteurs** (Ms. Belen Acosta, Dr. Fe Dolores Estepa, Dr. Junemie Ramos, Dr. Edgar Amar, Ms. Ma. Rovilla Luhan, Ms. Mila Castañón and Ms. Kimberly Dianne Abrogueña); and **administrative support** (Ms. Anna Ma. Josefa Ortiz and Mr. Stephen Alayon)

Ms. Acosta and Dr. Coloso were the main organizers of the aquaculture session which also had 1 keynote address (by Dr. Sena de Silva) and 17 panelists who all gave recommendations



### Every child-artist is a winner!

Drawn by children aged 14 years old or younger, the four entries each from the 11 member-countries of SEAFDEC were all considered winners. At bottom right was the Thai booth featuring products made from tilapia skin



**Tilapia for People**  
 Tilapia (*Oreochromis niloticus*, or Nile Tilapia) is a fish that King Bhumibol Adulyadej kindly presented to Department of Fisheries in order to breed and then give out to Thai people. Up till now, tilapia is a common fish found in any market nationwide due to its white flesh and good taste. Now, it is easy to be cooked in various dishes. Because of its potential to commercially meet up to industrial needs, it has been promoted throughout supply chain, including production systems, to improve the efficiency and effectiveness of production and to ensure safety and quality.

Tilapia composes of a complete set of essential amino acids and beneficial unsaturated fatty acids such as Oleic acid, Linoleic acid and Docosahexaenoic acid (DHA).

Tilapia Flesh, 100 g contains:	Energy
1. Protein	26.34 ± 0.01
2. Phosphorus	17.70 ± 0.11
3. Fat	1.74 ± 0.04
4. Ash	1.14 ± 0.02
5. Salt	0.15 ± 0.10

## AQD attends world aquaculture conference...

AQD scientist Dr. Ma. Lourdes Aralar presented a paper on *Recent developments in the culture of Macrobrachium rosenbergii in lake-based cages* during the *World aquaculture 2011 conference* held 6-10 June in Rio Grande do Norte, Brazil. Organized by the World

Aquaculture Society, the conference welcomed a total of 4,290 participants from over 65 countries and provided venue to address technical and practical aspects in aquaculture. Among the species covered were grouper, shrimp, tuna, catfish, carp, mussels, and freshwater prawns.



ML ARALAR

Dr. ML Aralar talks about advances in freshwater prawn cage culture

## ...FSA in Aklan and CRM in Guimaras

Mr. Albert Gaitan, AQD Igang marine station head, was invited by PCAMRD to give a lecture on *Culture of high-value marine species* during the *Seabass culture kita-kits fiesta*, a closing activity of PCAMRD's Fisheries school on-the-air project.

This was held 6-10 June in New Washington, Aklan. AQD also put-up a mini-exhibit at the fiesta.

In addition, AQD was invited as resource persons to the *Coastal resource management (CRM) planning workshop* held 8-10 June organized by LGU-Nueva Valencia, Guimaras.

The CRM plan will cover 16 coastal barangays in Nueva Valencia.

Municipal agriculturist Mr. Oliver Chavez, thanked AQD, in particular Mr. RF Agbayani and Ms. Didi Baticados for

sharing its technical expertise in the milkfish culture project.



AQD's training&info head Mr. Renato Agbayani presents 25 titles of selected publications and multimedia to Mr. Oliver Chavez as donation to the Nueva Valencia library

## Marine fish training concluded

"AQD is my first hope," said Mr. Jose Lowell Cornelio of Singapore after completing this year's *International course on marine fish hatchery* which ran from 20 June to 26 July.

Mr. Cornelio had nine co-trainees from Cambodia (1), China (2), India (1), Singapore (2), Sri Lanka (1), and the Philippines (2).

Funded by Government of Japan Trust Fund, the training covered lectures and practicals on sustainable aquaculture,



Trainees collect milkfish egg (left) and spawn rabbitfish broodstock (right)

fish biology, natural food production, hatchery design & management, nutrition and feeds, water quality monitoring, health management, economics,

post-harvest, and marketing. The participants also visited the AQD stations in Igang and Dumangas, as well as several private hatcheries in Iloilo.

The participants with AQD Chief Dr. Joebert Toledo (center) during their courtesy call



**"I would like to thank AQD for its commitment in upholding information dissemination in aquaculture. Indeed, my stay here is worth it. I am looking forward to hear more success for AQD in the years to come."**

Mr. Jose Lowell Cornelio  
Technical Officer of Agri-Food & Veterinary Authority  
Singapore

## BFAR-RFTC training series draws to a close

The last in the series of five training courses that AQD organized for BFAR's RFTC (Regional fisheries training centers) draws to a close. Nineteen technical staff of RFTC Albay, Aparri, Cebu, Davao, Palawan, Samar, and Zamboanga completed the *Crab hatchery, nursery, and grow-out* course that was held 27 June-19 July. They were joined by six other private sector participants.

Clockwise: Trainees stock megalopae, prepare a pond, and visit a private farm



AQD resource persons gave lectures on seed production, nursery & grow-out and industry status. In addition, the participants had practical sessions on larval rearing as well as microalgae culture and feeding.

The participants extended their warmest appreciation to AQD for giving them the opportunity to gain new knowledge, reassuring their AQD mentors that they will impart the expertise they have learned from the training.

## Trainee on algae



Mr. Alchris Go (center) with research head Dr. EG Ayson and training&info head Mr. RF Agbayani

Mr. Alchris Go of Cebu City, the sole participant in the *Special training on culture of microalgae*, successfully completed the month-long course which started on 9 May. Mr. Go received his certificate of completion on 10 June.

**"I salute all the AQD resource persons and staff who shared to us their expertise. On behalf of BFAR-RFTC, I really appreciate AQD for helping us, and I hope that AQD will continue to support us."**

Mr. Norberto Berida  
BFAR-RFTC Training Center Director, Catbalogan, Samar

## Point-&-shoot photo workshop

Point-&-shoot camera? Check. Good-&-bad pictures? Check. Composition-&-lighting? Check.

Wanting to equip themselves with a keener eye for photography, 15 enthusiastic AQD staff participated in the *Photography class using point-&-shot camera* which was held on 6, 8, 21, and 27 June at AQD's Tigbauan Main Station in Iloilo.

Class instructor, Mr. Marlon Hacla, discussed fundamental principles, techniques & applications of digital camera-based photography; practicals on outdoor, indoor & event photography essentials such as composition & lightning, and digital editing using photo softwares such as Picasa.

Organized by the Development Communication

Section through the Staff Development Committee, the class aimed to develop the photography skills of AQD staff.



AQD staff Ms. Marivic Decafe, Ms. Richelle Bautista and Dr. Michelle Peñaranda look at the photos taken by Ms. Eliza June Pagtanac (left); Mr. Marlon Hacla tackles basic photography principles during the first class



## AQD expands its feed mill



AQD expanded its pilot feed mill in Tigbauan, Iloilo to house a new extrusion machine. The production capacity is more than double the old one, now at 200 kg feeds per hour, to mill diets for AQD's technology verification and demonstration studies on grouper, sea bass, shrimp, mud crab, among others. The formulated diets are based on AQD's decades-long R&D on

fish nutrition and feed development. The blessing of the new facility was done on 22 June.

AQD Chief Dr. JD Toledo noted that, although the feedmill mainly caters to AQD needs, four commercial milkfish hatcheries in Iloilo, Negros and Luzon are supplied AQD-formulated broodstock diets.

## Research seminars



**Dr. Fernando Siringan** of the University of the Philippines Diliman presented on 3 June his study on *Submarine groundwater discharge (SGD) at the reef flat of Santiago Island, Bolinao, Philippines*.

Dr. Siringan said that SGD is traced through spatial and time series surveys of salinity and temperature, and electrical resistivity.

He further explained that the resistivity profiles indicate the occurrence of extensive pockets of relatively fresh groundwater. On the other hand, the lateral variation in dissolved radon, nitrate, salinity, and conductivity defines a patchy freshwater SGD. Radon average during wet season is 1.7 dpm/L whereas during dry season, it is 0.7 dpm/L. The latter may indicate a large seasonal variation in seepage. The average seepage rate yielded is 33cm/day, indicating that the SGD is predominantly recirculated seawater.



**Mr. Ben Thompson** of the Imperial College London presented the plans for his proposed study on *Investigating the blue carbon potential of mangroves: a case study from Panay Island, Philippines* on 27 June.

For the study sites in Ajuy and Ibajay, he plans to: (1) quantify the current, bygone and projected values of carbon in the mangrove forests; (2) determine the economic value of mangroves and non-mangroves land uses to local communities; (3) determine the strength of economic rationale for mangrove restoration and management; and (4) conclude whether or not blue carbon potential of mangrove forests on Panay Island is significant enough to compensate coastal communities for loss of their direct use values.

## AQD visitors in June

### ACIAR

Dr. Chris Barlow, Fisheries Research Program Manager from Australian Center for International Agricultural Research (ACIAR) toured AQD's Tigbauan Main Station on 23 June. He discussed with AQD Chief Dr. Joebert Toledo, division heads, and project leaders about the recent development in the ACIAR sandfish culture project. He also visited AQD's Igang Marine Station.



Dr. Chris Barlow with AQD Associate Scientist Dr. Jon Altamirano & AQD Chief Dr. JD Toledo

### JICA

A Japan International Cooperation Agency (JICA) volunteer Mr. Yoshiaki Morimoto paid AQD a visit on 6 June. He is also the program leader of the *Community-based resource management* project in Bulan, Sorsogon. He met with AQD training&info head Mr. Renato Agbayani and AQD researcher Ms. Didi Baticados to seek advice on community-based strategies in managing natural resources.



### Philippine Senate

Senate committee chair on agriculture and food, Hon. Francis 'Kiko' Pangilinan, visited AQD on 2 June as he sought to form partnerships with institutions and community-based organizations that will provide viable enterprises for organized fisherfolk in the country. Senator Pangilinan learned of AQD's projects and thrusts, including technology assistance and extension to communities, through a briefing by AQD Chief Dr. Joebert Toledo and AQD senior officials. He also toured some of AQD's facilities such as the marine fish, sandfish, abalone, and mudcrab hatcheries.



### AQD Matters

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