

10 April, 15:30-17:30: Inclusive Business

How to Make Innovations Contribute to Inclusive Business and Equal Access to Food?

Chair: Marc VERDEGEM

Secretary: Roel H. BOSMA

Two short introductions to present the topic:

Principles of Inclusive Business. BOSMA Roel H., *WUR-ASG-AFI*.

Inclusive Sea-Food Value Chain for Equal Access to Food, VIVEKANANDAN Vriddagiri, *South Indian Federation of Fishermen Societies, Karamana, Trivandrum, India*.

World Café break-out with Intro on process by CALUMPANG Lorna, and 3 rounds of discussions on propositions in 3 themes:

Theme A: To limit the use of land, fresh water and fish, and increase seafood yields from ponds, priority should be to:

- ✓ Improve the feed use efficiency in ponds to RAS' levels,
- ✓ and Replace fish-meal and fish-oil in rations, by doing

Theme B: Overcoming Constraints to Adoption of Innovations requires that all aquaculture technologies are:

- ✓ Assessed financially through partial budget & CB analysis;
- ✓ Designed further on-farm together with the stakeholders;
- ✓ Taught to smallholder farmers through field schools, or

Theme C: To make Seafood Equally Available to All, the related:

- ✓ Value chains of both fisheries and aquaculture need to be considered in the regional contexts.
- ✓ Business & Trade need to

Plenary: Feedback from the break-out groups and **Discussion** on:

- ✓ How to innovate for better food and nutrient security?

Special Session

Inclusiveness for Sustainable Sea-Food Security

12th AFAF - Asian Forum for Aquaculture & Fisheries.

Wednesday 10 April 2019, Iloilo, Philippines



Goals of three sessions

10:30 - 12:00 Inventory of Challenges and Opportunities of Intensive and Extensive Pond Aquaculture.

13:00 - 15:00: Approaches to Adoption of Innovations in Aquaculture by Smallholder Farmers

15:30 - 17:30: How can Innovations Contribute to Inclusiveness?

We invite Academia, Private sector, NGO and GO to meet

NWO-GCP projects of Wageningen University & Research, Wetlands International; WorldFish, University of Amsterdam, Khulna University, MMFA-Indonesia, IUCN, FishMARC-India, Solidaridad, Aqua-Spark, Diponegoro University, Can Tho University, Blue Forest and others.

10 April, 10:30-12:00, Panel Aquaculture

Challenges and Opportunities of Pond Aquaculture

Chair: Marc VERDEGEM

Secretary: Roel H. BOSMA

1. VERDEGEM Marc C.J.: Challenges for Pond Aquaculture. *Wageningen University & Research, Animal Sciences (ASG), Aquaculture & Fisheries (AFI).*
2. HERMSEN Devi: Effects of Dioflocs on Seafood Quality. *Wageningen University & Research - ASG-AFI.*
3. TRAN Huu Tinh: Effects of Carbohydrate Sources on a Biofloc Culture System for White Leg Shrimp (*Penaeus vannamei*). *Wageningen University & Research - ASG-AFI.*
4. KABIR Kazi A.: The Effect of Dietary Protein to Energy Ratio and Stocking Densities on Fish Production, Food Web Enhancement and Economic Benefit of GIFT Nile Tilapia Aquaculture In Ponds. *WorldFish - Bangladesh.*
5. HUYNH Thanh Toi: Impact of Feeding High Energy/Protein Ratios on Shrimp Farming. *College of Aquaculture & Fisheries, Can Tho University, Vietnam (CTU).*
6. Plenary: Dialogue with stakeholders on the innovations.

Lead questions: Aquaculture production is expected to double by 2050, but depends on natural resources for fresh water, fish meal and fish oil, and agricultural (by)products (land, water & energy).

- ✓ How can research support this production increase, while reducing pressure on these resources?
- ✓ Which are priority topics for research?

10 April, 13:00-15:00, Panel Capacity Building

Design & Dissemination of Aquaculture Technology

Chair: Roel H. BOSMA

Secretary: Olivier JOFFRE

1. JOFFRE Olivier: Aquaculture Innovation Research : What (or who) are we missing? *WorldFish - Cambodia*
2. ELFITASARI Tita. Constraints to Aquaculture Innovation in Demak and Brebes, Indonesia. *University Diponegoro, Faculty of Fisheries and Marine Sciences (UNDIP-FPIK)*
3. KHAN Nazneen, Using Service Providers to Include Smallholders in the Value Chain. *WorldFish - Bangladesh.*
4. YUNIATI Woro. Impact of Coastal Farmer Field Schools (CFS) on Farmers in Indonesia. *Blue Forest Indonesia*
5. REJEKI Sri. Impact of Coastal Farmer Field Schools on yields of brackish water ponds in Indonesia. *UNDIP-FPIK.*
6. TRAN Thi Phung Ha: Impact of games on aquaculture innovation. *School of Social Sciences & Humanities, CTU.*
7. JOFFRE Olivier / BOSMA Roel: Agent Based Modelling for Areal Policy Advices. *WorldFish - WUR - CTU.*
8. Dialogue with stakeholders on the proposed innovations.

Lead questions: Classical transfer of technology to farmers had limited outcomes, while multi-stakeholder approaches to design and deploy technology, are perceived as resource consuming.

- ✓ How can research convince governments and donors to invest in multi-stakeholder approaches to innovation?
- ✓ How to mainstream the multi-stakeholder approaches to innovations?