

## AGENDA

- Scope:
- A) To initiate and develop a strategy and approach for supporting and achieving international cooperation activities within EATIP
  - B) To formulate recommendations for follow-up actions to the EATiP Board and subsequently to the European Commission

### BACKGROUND IDEAS

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**Topic 1:** *Briefing on EC-USA-CANADA*

- Report on EU position and progress (Courtney Hough)

**Topic 2:** *Briefing on ASEAN*

- Meeting report and position following discussions with the EC and Djakarta mission (Patrick Sorgeloos and Patrick Lavens)

**Topic 3:** *Gathering interest and competence for INCO within EATiP*

- What should be the structure and membership of this EATIP WG?
- Who is currently interested?

**Topic 4:** *Develop a roadmap for action (for Aquaculture Europe 2015 – October 2015)*

- What to do?
  - How to achieve this ?
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### **Meeting Report (Note: Background Papers follow the Report)**

- Introduction by Patrick Sorgeloos:
  - Presentation about the opportunities and outcome of previous meetings
  - Ppt presentation in attachment
- Introduction was given by John Stephanis on behalf of the EATIP board.
  - The EATIP board had made a decision to establish the WG International Cooperation with Patrick Sorgeloos as chair and John Stephanis (Selonda SA, Greece) and Karl Almas (SINTEF Fisheries and Aquaculture, Norway) as board liaison persons.
- It was pointed out that cooperation with ASEAN countries should be as an equal partnership and for mutual benefits (also for the producers in Europe). There is a long history and increased interest for collaboration with European partners among the ASEAN countries with several examples of successful ventures. Impact of Asian seafood imports into Europe is dominated by fisheries products (not aquaculture; see the 2014 EU Fish Market in attachment).
- The ASEAN - Fisheries Education Network (ASEAN-FEN) has been established. This is a possible partner for EATIP to set up/start a cooperation with different E.U. stakeholders, mainly of the aquaculture industry, focusing on the needs of the sector.
- It was pointed out that the development of the industry in Asia is towards larger and integrated industrial companies with focus on sustainable production

- Collaboration with European and Asian aquaculture business partners often starts as PPP (Private Public Partnership) but problems and restrictions are mostly legal & regulatory issues: specific need for support from EC to European companies that wish to engage in business collaboration
- Specific comments/inputs from the EU:
  - cooperation needs to be for the benefit of the E.U. industry; what are the biggest market opportunities for Europe
  - need for common standards, not only safety but also sustainability issues
  - from aid to industry driven
  - focus on where/how to facilitate E.U. industry development through this international cooperation with the support of the Commission
  - need for coordination with DG DevCo
  - mapping of existing activities is important: the EATIP WG could be a good platform for such an activity
- It will be important to identify whom to talk to for further developing of the network
  - identify the counterpart for the EATIP WG in ASEAN countries
- Similar to past developments in Europe, academic partners could be a good facilitator for further industry contacts
- It was pointed out that the EATIP Board does not want a narrow focus on farmers, but to include all industrial sectors in the cooperation, with a strong focus on mutual benefits for both regions.
- The WG should draft Rules of Procedure to be approved by the EATiP Board
- It will be advisable the WG to start with an initiative towards ASEAN – FEN, and build further industrial network and cooperation based on this contact. Such initiative should get a fast approval by the EATiP Board
- The WG wants to receive confirmation from the EATIP Board to proceed with the development of an Action Plan based on the above WG conclusions.
  
- It would be the intention to organize a WG presentation and discussion at the EAS conference in Rotterdam in October 2015

# Background

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The EATiP Board agreed in its last meeting that a Working Group on International Cooperation should be established, as requested by the EATiP Assembly. Professor Patrick Sorgeloos will chair this Group, whose first meeting will be on the afternoon of Wednesday 29th April 2015 (14.00-16.30).

Initially, this Working Group has 2 aspects to consider, which follow recent meetings and developments put forward by the European Commission which has been examining the scope for international cooperation on aquaculture, where 2 geographic areas have been highlighted.

## A) Atlantic Ocean Cooperation

As an extension of the Galway Statement, on Atlantic Ocean Cooperation between EU, USA and Canada, 2 workshops have been organised where, for aquaculture, furthering an ecosystem approach to development has been put forward as an area of common interest. This approach extends to other marine and maritime topics and work continues to develop this collaborative effort.

1. Priority 1 - Progressing models from scientific to operational status for evaluating risk and promoting the development of aquaculture
2. Priority 2- Improvement and integration of monitoring systems for aquaculture
3. Priority 3- Adaptive strategies for dealing with the effects of climate change on aquaculture

The modalities for reinforcing cooperation are being examined and the potential for include information sharing, exchange of best practices and aligning specific 'twinning' research activities.

## A-1 Workshop on Ecosystem Approach to Aquaculture

A joint initiative between the US, Canada and the EU TRANS-ATLANTIC OCEAN RESEARCH ALLIANCE

Meeting of the WORKING GROUP ON AQUACULTURE (14 October 2014, San Sebastian, Spain) – organised by the European Commission

### SUMMARY REPORT

The Workshop on Ecosystem Approach to Aquaculture (EAA) organised in San Sebastian, Spain 14 October 2014 by DG RTD/F4 is the first action foreseen by the Aquaculture sub-working group of the Trans-Atlantic Ocean Research Alliance between the US, Canada and the EU as a follow-up of the Galway Declaration.

### OBJECTIVES:

The workshop aimed at structuring the cooperation between the three partners by:

- (1) Sharing information on each other's existing research activities in the field of Ecosystem Approach to Aquaculture and identifying complementarities,
- (2) Engaging in joint priority setting for potential cooperation areas,
- (3) On a longer term, investigating the possibility of aligning the planning and programming of research activities.

The workshop was organised in four sessions including short presentations by the US, Canadian and European experts, followed by a general discussion focusing on:

- (1) Genetic impact of farmed animals on wild population
- (2) Ecosystem modelling/carrying capacity
- (3) Understanding and, when possible mitigating, the impact of climate change on farmed animals
- (4) Monitoring systems

A total of 34 experts attended including four for NOAA (USA), four from DFO (Canada), 3 from the European Commission (including JRC), one from ICES and 23 from EU or associated countries.

### **MAIN OUTPUTS**

Three broad priorities emerged which share the common goals of supporting managers, helping producers reduce risk, and enabling and developing sustainable aquaculture.

Some of the following priority areas are already supported by bilateral collaborations which could be leveraged to provide more integrated cooperation frameworks.

**Priority 1** - Progressing models from scientific to operational status for evaluating risk and enabling the development of sustainable aquaculture

#### **Specific topics for collaboration include:**

- (a) Tools for impact assessment requested by industry and regulators;
- (b) Tools for risk assessment of impacts of escapees from aquaculture farms;
- (c) Tools for improved spatial planning.

**Priority 2** - Improvement and integration of monitoring systems for aquaculture

#### **Specific topics for collaboration include:**

- (a) Monitoring of environmental effects of aquaculture, e.g. organic loading, parasite distribution, escapes, and introgression;
- (b) Monitoring of environmental effects on aquaculture, e.g., systems for Harmful Algal Blooms (HAB); performance with respect to climatic variability (this links to Priority 3);
- (c) Technological development of biosensors;
- (d) Linkage of monitoring to hypothesis-testing.

**Priority 3** - Adaptive strategies for dealing with climate change and other environmental effects on aquaculture

#### **Specific topics for collaboration include:**

- a) Changes in patterns of Harmful Algal Bloom (HAB) occurrence, including species shifts and changes in frequency and duration, e.g., work on data mining of long-term HAB records from different regions;

- b) Physiological changes in farmed aquatic species, including stress-induced changes in growth, spawning of invasive (e.g., Pacific oyster), and in susceptibility to disease (e.g., fish diseases);
- c) Emerging diseases that may be enhanced due to climate change, e.g., become widespread in new areas, and/or more frequent, virulent, etc.
- d) Tools and strategies to minimize impacts from HABs, pathogens/parasites, climate change and other factors on aquaculture operations.

### **MODALITIES FOR REINFORCING COOPERATION**

As a first step, the following actions are proposed;

#### **1. Information sharing:**

- 1.1- Continue to collate information on existing cooperation between partners and with EU Member States and Associated States (lead RTD/F4).
- 1.2- Identifying possible publications by the partners (all).

#### **2- Exchange of best practices:**

- 2.1- Identifying and planning thematic workshops which are considered very useful to structure the network, facilitate exchange of best practices and further elaborate common priorities and potential collaborations (all).

#### **3- Alignment the planning and programming of research activities:**

- 3.1- Identifying a list of potential projects/programmes to be twinned including FP7/Horizon 2020 projects
- 3.2- Training and/or exchange of students and scientists (to be further discussed)
- 3.3- Encourage the opening and participation of international partners to national research programmes/calls in particular Horizon 2020 calls in 2015, NSF.

### **NEXT STEPS**

- 1. To validate the three broad priorities identified so far;
- 2. To further elaborate possible actions;
- 3. To establish a tentative roadmap for 2015.

## B) EU-ASEAN Cooperation

The potential for EU-ASEAN cooperation on aquaculture development was described in the previous newsletter, following on from conclusions of the 'Aqasem' project and a dedicated workshop in Djakarta (Indonesia) in 2014. Prof. Patrick Sorgeloos was involved in the organisation of the meeting while Dr. Patrick Lavens (Chair: Thematic Area - Biological Lifecycle) attended for EATiP.

The "Sustainable Intensification of Aquaculture" was identified by both EU and ASEAN participants as the major challenge ahead to meet global seafood security needs for future generations, where issues relating to

- animal health,
- ecosystem-based farming approaches,
- feed/food security issues,
- governance in spatial planning and
- under acceptable socio-economic conditions.

It was also agreed that in order to address these global challenges, more concerted efforts are needed to reinforce capacity building by

- better alignment of capacity building efforts by EU partners
- facilitation of the formal establishment of the present ASEAN FEN initiative, and
- develop new initiatives for joint course and degree programmes.

A report will be prepared and presented to the respective stakeholders and authorities within Europe (i.e. EATiP, EU DGs R&I, MARE and AIDCO) for further consideration under the EU-ASEAN umbrella eventually supported by several suitable instruments (Horizon 2020, AIDCO READI, new partnership instrument, etc.) and by Members States and the industry.

EATiP has indicated its general support for these points but has noted that industry's involvement must also demonstrate benefits for players in the European aquaculture sector.

The meeting report follows:

# EU & ASEAN Consultation on Aquaculture

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Monday 25 - Tuesday 26 August 2014 Jakarta, Indonesia

(organised by DG RTD/F4 and C1, hosted at the EU Delegation in Indonesia, and facilitated by SEA-EU-NET\*) – rapporteurs Dr P. Sorgeloos, Dr Shariff

## **Executive summary**

The purpose of this consultation meeting held in Jakarta 26 August 2014 was to exchange views with representative counterparts from ASEAN countries by 1) verifying farmer/industry needs, 2) identifying R&D innovation priorities of mutual benefit in support of these needs, and 3) develop a possible agenda/road map for follow up.

### **1. Challenges & interests in seafood security issues in Europe and in Asia - identification of common areas of interest**

#### **Summary of Discussion:**

Consensus was reached that the priority for contributing to the global seafood security challenges is to ensure a sustainable intensification of aquaculture farming practices through 1) a holistic approach in animal health management, 2) more ecosystem-based farming practices, 3) the development and application of appropriate environmental planning/zoning and 4) focus on maximized feed security & safety, at the same time ensuring optimal socio-economic conditions for the farmer's communities.

#### **Highlights:**

- Need for holistic approach in developing new health management measures with 1) focus on the animals (selected breeds, better knowledge of their immune system, development and application of new vaccines and prophylactic treatments), 2) the interaction with the environment (in preventing disease outbreaks from a sound epidemiological perspective), and 3) improved farming practices (more focus on multi-species integration and water quality management)
- ASEAN countries have a long history of integrated farming approaches (multiple species, combination of terrestrial and aquatic farming practices, better ecosystem buffering) versus the monoculture approach in the Western world. Joint application of omics & biotechnology tools developed in Europe with colleagues in Asia could help in better understanding nutrient flows, microbial loops, ecosystem functioning of the operational integrated farming systems in Asia as to develop new knowledge for developing more sustainable farming practices in Europe and Asia.

More attention in ASEAN countries to develop local solutions for local species in response to past developments with introduced species that resulted in new problems (diseases, species competition, etc.). Spatial planning from integrated socio-economic and ecological point of view requires governance models.

- Need for and role of new networks and partnerships in the ASEAN region at national and regional level to facilitate more industry interaction between East and West (for example. the introduction in ASEAN production markets of new concepts and products from European suppliers or shareholders)
- Mutual benefits of EU-ASEAN cooperation in aquaculture R&D are clear as 1) Europe will continue to need seafood imports from Southeast Asia, 2) Europe and ASEAN together could share efforts to tackle the vast problems of the coming decades to solve the seafood security and safety issues, and 3) companies from both regions could benefit from increased business interaction.

## **2 - Capacity Building**

### **Summary of Discussion:**

- Aside from the reports by the universities of Wageningen, Stirling and Ghent, it was noted that several more European universities (from Denmark, France, Germany, etc.) and research institutes (CIRAD and IRD from France, CDI and IMARES, the Netherlands, Von Thüneninstitute Germany, CEFAS United Kingdom and NACEE from Eastern Europe, etc.) have long traditions of cooperation and have established strong networks supported by national bilateral programmes as well as EU-funded projects under previous framework programmes.  
As agreed at the July 8 Brussels' meeting an inventory of institutional cooperation between EU/Member Countries and ASEAN partners will be drawn up and could rationalize/consolidate international partnership interaction.
- European participants' main interest in future cooperation with ASEAN partners is in higher education (PhD and Master level) as this guarantees a strong research component of mutual benefit for both regions that can result in new business opportunities. New joint capacity building initiatives at the academic level (through various exchange and/or double/joint degree schemes) should be supplemented with specific course modules (vocational training) to cater for timely needs from the farming sector or other industry stakeholders. Need to take good account of social and governance factors
- The long experience of the European higher education network in aquaculture "AquaTnet" could serve as a model for similar initiatives in Asia and eventually be expanded to a joint EU-ASEAN network

- Informal knowledge networks may be better developed in Asia, but Europe probably is more advanced in formal international networks. Having a platform available facilitates opportunities for interaction.

The present ASEAN Fisheries Education Network (ASEAN FEN) will be used as a platform to work closely with European partners. The ASEAN FEN which is currently a loose network of several universities will need assistance to be formalized to have its own constitution and need to be an officially registered entity with office bearers for its operation.

The Network will clearly outline its membership categories and its various activities to promote the healthy sustainable development of aquaculture by working closely with the local stakeholders in the private and public sectors and European partners through EU funding.

The Network will facilitate exchange of visits for staff, students and other stakeholders between the Asian and European partners. The Network shall identify and prioritise areas of research to produce certified healthy aquaculture products. In terms of education, the Network will work towards exchange of students and academic staff within the regional institutions and with European institutions. Thus standardisation of credit scheme in the regional universities shall be done to facilitate mobility of students.

### **3.- Final Conclusion and Recommendations**

**1/ “Sustainable Intensification of Aquaculture”** has been identified by both EU and ASEAN participants as the major challenge ahead to meet global seafood security needs for future generations.

In order to tackle these food safety/security issues, the following areas have been selected for innovative R&D and new industrial activities between East & West in 1) animal health, 2) ecosystem-based farming approaches, 3) feed/food security issues, 4) governance in spatial planning and 5) under acceptable socio-economic conditions. Expert panels should draw up more detailed/specific priorities for consideration for future research funding schemes

2/ It was also agreed that in order to address these global challenges more concerted efforts are needed to **reinforce capacity building** by 1) better alignment of capacity building efforts by EU partners, 2) facilitation of the formal establishment of the present ASEAN FEN initiative, and 3) develop new initiatives for joint course and degree programmes.

3/ EU participants have agreed to **complete the inventory** of existing institutional cooperation between EU/Member Countries and ASEAN partners in order to rationalize/consolidate international partnership interaction.

4/ This report shall be presented to the respective stakeholders and authorities within Europe (EATiP, EU DGs MARE and AIDCO) for **further consideration** under the EU-ASEAN umbrella eventually supported by several suitable instruments (Horizon 2020, AIDCO READI, new partnership instrument, etc.) and by Member States and the industry.