

## SEAT

### Sustaining Ethical Aquaculture Trade

#### The Challenge

Global consumption of seafood and associated trade volumes have risen dramatically over the last decade due to rising population, growing affluence and changing eating habits. Today more than half of all seafood is internationally traded with net transfers from developing to developed countries. The EU is the largest single regional importer taking over 30% of all internationally traded seafood in 2008.

The contribution of farmed seafood products to this market has grown steadily; currently around half of global seafood production is of farmed origin. Most production destined for trade comes from fresh and brackish water delta and lagoon regions of South and Southeast Asia. Four key species groups are fast growing catfishes (Pangasidae), tilapias, shrimps and fresh-water prawns. The rate of growth and levels of intensification of some of these systems in geographically restricted areas is unprecedented, leading to serious sustainability concerns.

Current EU policy supporting international trade between Asia and Europe concentrates on issues of food safety as measures of quality, whilst market-forces drive development of standards and labels that identify social and environmental parameters.

#### Project Objective

- This project proposes to establish an evidence-based framework to support current and future stakeholder dialogues organised by certification organisations. This will contribute to harmonising standards, helping consumers to make fully informed choices with regards to the sustainability and safety of their seafood. The **'Ethical Aquatic Food Index'** (EAFI), a qualitative holistic measure of overall sustainability to support consumers' purchasing decisions, will be based on detailed research centred around a Life Cycle Assessment (LCA) of current processes.
- To establish a reliable structure for internal and external communication between European and Asian small and medium scale-enterprises to address sustainability questions including environmental impacts, impacts of trade on local livelihoods and public health, food safety including contaminants and traceability concerns, and barriers to trade. Running from 2009-2013, the project will take a highly interdisciplinary approach to address sustainability questions and includes a consortium of 14 internationally recognised institutions and organisations. Topics that will be addressed during the project will include environmental impacts, impacts of trade on local livelihoods and public health, food safety including contaminants and traceability concerns, and barriers to trade.

The sectors covered represent the main aquaculture products



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#### EATIP Thematic Area of Relevance

**TA1:** Product Quality, Consumer Safety and Health

**TA2:** Technology and Systems

**TA3:** Managing the Biological Lifecycle

**TA4:** Sustainable Feed Production

**TA5:** Integration with the Environment

**TA6:** Knowledge Management

**TA7:** Aquatic Animal Health and Welfare

**TA8:** Socio-Economics and Management

#### Key Words

Trade, aquatic products, Asia, ethical trade, ethical aquatic food index, standards, LCA

#### Project Information

**Contract number:**  
222889

**Contract type:**  
Collaborative project for specific cooperation actions dedicated to international cooperation partner countries (SICA)

**Research area:**  
KBBE - Sustainability of the food chain

**Duration:**  
48 months (01/08/2009 – 31/07/2013)

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reaching EU markets; tilapia, catfish, shrimps and prawns. Known case study stakeholders include SMEs in Bangladesh, China, Thailand and Vietnam where sustainability is essential in the face of rapid growth.

## Key Points

- Develop improved and transparent measures of sustainability for target aquatic food systems through creation of an Ethical Aquaculture Food Index (EAFI)
- Gain and disseminate an in depth understanding of emergent Asian aquatic food production / market chains through interdisciplinary effort
- Enhance the sustainability and ethical 'values' of four major aquatic food commodities including examination of environmental services, economic efficiency, social justice, food quality and safety and animal welfare
- Enhance farmed aquatic food, scientific, business and policy linkages between Asia and Europe

## Key New Knowledge Expected

- Creation of an 'Ethical Aquatic Food Index' (EAFI), with values relating to food production, processing and marketing for all relevant stakeholders.
- Development of a Life Cycle Assessment methodology for use in comparing environmental performance of products and services in the industry
- Examination of the Global Value Chains for relevant aquaculture products including analysis of socio-economic dimensions
- Improve safety of aquaculture production for all stakeholders in the value chain, and improve control of occupational health and safety for farmers
- Examination of impacts of chemical inputs to aquaculture systems and associated risk assessment development for endpoints e.g. ecosystem, product and consumers
- Review and development of environmental models for quantitative investigation of environmental sustainability and quality standards of aquaculture systems
- Evidence-based ethical advice for policy makers, standard setting organisations and consumers to inform participatory standards development and awareness raising
- Provision of guidance to Asian exporters and regulatory agencies relating to policy within the EU hygiene package and implementation of the EAFI

Outputs will be promoted through workshops, websites, journal and press articles.

## Potential Impacts

Project outcomes will support industry expansion and promote safe and sustainable products for consumers, whilst ensuring a fair deal for producers who meet appropriate social and environmental standards.



### Policy

- The EAFI could be implemented by policy maker and regulatory agencies within the EU hygiene package



### SME

- The development of an EAFI should contribute to better production methodologies, safer products, improved conditions for workers and lesser environmental impact, giving also a competitive advantage on the market.
- By strengthening the knowledge base and communication surrounding the EU-Asia seafood trade the project will provide the evidence required to support further expansion whilst ensuring a fair deal for producers who are meeting appropriate social and environmental goals and offering a safe and

sustainable product for consumers.

- SEAT will work with businesses involved in the aquaculture industry from 'farm to fork' to enhance capacity and ensure sustainability.
- The research will improve understanding of opportunities for European exports to supply the expanding middleclass in Asia.
- SEAT will provide improved understanding of stakeholder perceptions of the industry as well as trade and policy related information to SMEs.



#### **Society**

- The research will contribute to improved standards and support their harmonisation in turn helping consumers to make fully informed choices with regards to the sustainability and safety of their seafood.



#### **RTD**

- Life cycle analysis will be used to explore energy and material costs embedded in the global value-chains, producing information on materials and practices with a lesser environmental impact.
- Technologies potentially generated by the project will help to implement sustainability strategies and trigger the adaptation of good practices.