

International course

# Responsible aquaculture development for food security and economic progress



## Aquaculture sector governance and improvements at farm-level

Wageningen, The Netherlands, 04 - 22 November 2019

### A sector on the rise ...

On a global scale aquaculture has been growing steadily in the past decades. The amount of products resulting from aquaculture is soon expected to overtake the amount of products supplied by capture fisheries. Besides from an increasing world population, the global demand for fish or aquatic products is also driven by a growing awareness of the positive impact of consumption of fish and other aquatic products on human health due to the presence of unsaturated fatty acids, micro-nutrients and high protein level. The local production and supply are not sufficient for the demand for fishery products of the European and North American market and fish and other seafood have become very important export commodities for Vietnam, Bangladesh, Thailand and other countries. Especially in East, South and S.E. Asia aquaculture is a well-established and fast growing sector; these regions together contribute 88% to the global aquaculture production (FAO, 2014).

### But not everywhere...

In many other regions however aquaculture development has been slow and problematic. Programs to assist the start and further growth of fish farming have not reached their objectives or initial successes could not be sustained. Some of the possible causes of slow or no growth are a lack of tradition with aquaculture and with irrigated agriculture (familiarity of farmers with water infrastructures and management); irregular source (or no source) of suitable water; competition on the market by fish from capture fisheries; no tradition with intensive (confined) animal husbandry; insufficient availability of inputs (feeds, fingerlings); unavailability of trained personnel and credit; unsuitable and unsupportive policies and legal framework.

Fee:	4,100 Euro
Deadline subscription:	23 September 2019
Deadline OKP/MSP Fellowships:	19 March 2019

### And not always on a responsible manner

In the countries and regions where aquaculture did develop, the sector growth often came with ecological and social costs. Large tracks of mangrove forests, wetlands and agricultural land were converted to fish and shrimp ponds. Areas that were considered common ground and important for coastal and riparian communities became privatised and closed, affecting



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the livelihoods of local communities. Pumping of fresh or saline water affected the level and salinity of groundwater tables and the availability of good quality drinking water. A part of the ponds were abandoned after a while due to disappointing yields, often the result of poor management and persistent disease problems. Effluent from ponds is often discharged without any treatment to the environment, affecting surrounding areas and aquatic ecosystems. Unchecked increase of cage farms has affected water quality and led to reduced production, disease problems and even massive fish mortalities in some of the lakes, reservoirs and coastal areas.

### Better sector governance, improvements at farm level

For the responsible development of the aquaculture sector ecological and social impact need to be taken into consideration beside from the often dominating economic incentives and drivers. Development of policies, strategies and action plans for aquaculture development require the involvement of all stakeholders, taking the ecosystem where development is taking place (or planned) as a basis. At farm level best management practices should be formulated and applied and environmentally responsible techniques can be used to reduce the negative impacts and ensure the long-term sustainability.

### Main objectives of the course

The course 'Responsible aquaculture development for food security and economic progress' is designed to train policy makers, civil servants, scientists, farm managers and others who play a key role in the development of the aquaculture sector in making strategic sector management plans in line with the FAO ecosystem approach to aquaculture; orient them about the possibilities and design principles of more intensive aquaculture techniques such as recirculating aquaculture systems (RAS) and intensive integrated aquaculture-agriculture systems, The course will also better management practices and environmental certification standards that are growing in importance on the western food market.

The course will be organised in cooperation with Wageningen University and private companies and is to be held in Wageningen, the Netherlands.

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## Further practical information

**Application**, the procedure is:

- 1) **Apply at the website of Wageningen Centre for Development Innovation** [www.wur.eu/cdi](http://www.wur.eu/cdi)  
You will receive a confirmation and more information within a week. Early application is recommended as some procedures to finalise subscription (f.e. funding, visa) can take some time.
- 2) **Wageningen Centre for Development Innovation** is unable to assist you in obtaining financial support, however if you want to apply for a **OKP/MSP Fellowship**, Wageningen Centre for Development Innovation will provide you with the full instructions and the web address for registration in **ATLAS**. ATLAS is the online application form for an OKP/MSP Fellowship. You can check the eligibility at [www.nuffic.nl](http://www.nuffic.nl). A limited number of scholarships is available. As this application process takes time and requires several documents, we recommend that **you start as soon as possible**.
  - **Location:** The Netherlands. For prices, see the cost estimate on our website. **OKP/MSP Fellowships include** travel and full board and lodging.
  - **Fee** includes all course related costs (materials, excursions, administration).
  - Participants will be awarded with a **Certificate of attendance**. The programme of the course might be changed to incorporate new insights.