FAO Aquaculture Field Projects in Latin America and the Caribbean[1]

Jorge Gonzalez dela Rocha

Regional Office for Latin America and the Caribbean (RLC)
Santiago, Chile
Jorge.delaRocha@fao.org

Field work of FAO in Latin America and the Caribbean (LAC) related to aquaculture is being implemented through projects under different modalities (e.g. Technical Cooperation Project or TCP, TCP Facility or Unilateral Trust Funds or UTF) that are executed at regional, sub-regional and national levels. In countries like Mexico and Brazil, there are also projects in operation at the level of the federal states and provinces.

Preparation of aquaculture development plans is one subject of high interest in the region. FAO is currently providing technical assistance to several countries. Through TCP/URU/3102 *National plan for aquaculture development*, a General Strategy for the Sustainable Aquaculture Development together with a Business Plan for the Establishment of Aquaculture Investments and Feasibility and Economic Studies for Aquaculture Enterprises, all in accordance with the National Policy for Sustainable Aquiculture of Uruguay has been developed. In Peru, the development of a National Plan for the Sustainable Development of Aquaculture under TCP/PER/3101 *National Strategy for Development of Sustainable Aquiculture in Perù* will be concluded by the end of 2008. Nicaragua is also receiving FAO assistance in the same subject as part of a TCP Facility, TCP/NIC/3103 *Support to the Fisheries and Aquaculture National Institute of Nicaragua for Preparation of an Aquaculture National Project.* This project gives special attention to the North Atlantic Autonomous Region (RAAN) affected by the Hurricane Felix.

In Mexico, FAO's field programme in aquaculture provides support at the level of the federal states. The Mediterranean state of Puebla is receiving assistance through the project UTF/MEX/071/MEX *Support to the Secretariat of Rural Development for Preparation of a Fisheries and Aquaculture Master Plan* for the preparation of a master plan for aquaculture and inland fisheries development with trout, tilapia and carp as the main cultured species. The state of Michoacan is receiving assistance through the project UTF/MEX/067/MEX *Support for the Strenghthening of Aquaculture Programmes in Michoacan State, Mexico* to develop a centre for producing genetically improved tilapia juveniles; activities for assessing biological feasibility of aquaculture in reservoirs have been also carried out. At the national level, the projects UTF/MEX/079 *Socio-economic Studies of Fisheries and Aquaculture* and TCP/MEX/3003 *Revision of the Fisheries and Aquaculture Legal Framework* are assisting in the analysis of the socioeconomic aspects of fisheries and aquaculture, and advising in the legal framework of the fisheries and aquaculture sectors, respectively.

Brazil receives technical assistance for mariculture development in the coastal areas of the country through UTF/BRA/066/BRA *Coastal Communities Development Programme* and a project for small-scale aquaculture in Parana state is under preparation using a TCP Facility, TCP/BRA/3002 *Programme for Aquaculture Productive Chain in the State of Parana*. A project in support of the Aquaculture and Fisheries Secretariat of Brazil (SEAP) has been recently completed under TCP/BRA/3001 *Institutional Strengthening of SEAP*.

Bolivia, Colombia and Cuba are receiving assistance for improving the fisheries and aquaculture under the following projects, namely: (i) TCP/BOL/3101 *Improvement of Fisheries and Aquaculture Legislation* for Bolivia, (ii) TCP/COL/3102 *Assistance of an Adviser in Fisheries and Aquaculture Legislation and an*

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Adviser in Fisheries and Aquaculture Policies for Colombia and (3) Cuba through TCP/CUB/3102 *Assistance for the Formulation of a Project on Tilapia Genetics* for Cuba.

Chile has recently completed a project TCP/CHI/3002 *Certification of the Compliance of Environmental Regulations by the Aquaculture Sector in Chile* and a pipeline project on biosecurity in aquaculture for southern Chile is under review. This project will be executed under UTF modality and is being formulated with the support of a TCP-Facility TCP/CHI/3201 *Formulation of Institutional Instruments for the Spatial Management of Aquaculture in the Magallanes and Chilean Antarctic Region.* These two projects are briefly described below.

TCP-FACILITY/CHI/3201

The outbreak of the Infectious Salmon Anemia virus in Chile was officially communicated in August 2007. On June 20th 2008, 24 farms were officially infected according to the National Fisheries Service. Twenty three of the infected sites are located in the "Lakes Region", where more than 500 farms are operating. The negative production results generated a clear necessity to relocate farms in other regions. The only option which salmon farmers have is to migrate south, towards Aysén or Magallanes Region, both of which are in the Chilean Patagonia. Since these regions, and specially the Magellan's Region, have tourism as their main activity, local communities and tourism boards estimate that the massive migration of salmon farming to this region is a threat to their development. NGOs have been already created and examples of impacts have been widely communicated. On the other side, aquaculture provides jobs and secure income during the entire year, causing an interesting local discussion to decide whether to accept or ban aquaculture in this region.

In order to minimize risks, take advantage of opportunities, and make a wise and coordinated use of the environmental capital of this region, the Magallanes Regional Authority requested for FAO assistance to develop a biosecurity framework, oriented to develop an Integrated Coastal Zoning for the 45 000 km long coast line, but also to contribute to sustainable operations by means of a biosecurity certification system. Finally, the request included also the strengthening of local capacities. The project proposal is currently under development.

TCP/CHI/3002

Chilean aquaculture has been growing at an average annual increase of 18 percent in the last 10 years, reaching, in 2007, a volume of nearly 800 thousand tonnes where salmonids represents more than 80 percent and with an export value of approximately USD2.5 M The salmon industry provides nearly 50 000 direct jobs and is mainly concentrated in the "Lakes Region". It has had strong economic and social impacts in this area. However, environmental interactions raised concern, despite the launching of the Environmental Regulation for Aquaculture (RAMA) in 2001. In order to assure the compliance of this regulation, the Chilean State requested in 2005 for FAO assistance to develop an evaluation and certification system.

The project finished in 2006 and proposed a certification system that considered the direct involvement of the International Standardisation Organisation (ISO) through its local accreditation body, the INN (Instituto Nacional de Normalización). It has been suggested that this body will evaluate and perform an accreditation process together with the National Fisheries Service. The system considers that only accredited laboratories will be able to take samples, transport them and perform the environmental analysis. On the other hand, it is proposed that only certifying bodies will be able to evaluate the compliance of all other environmental requirements stated in the RAMA and provide a certificate, if appropriate.

The process of developing the certification system included a very active participation of civil society (industry, farmers, environmental consultants and laboratory personnel, NGOs and the different institutional offices) through several seminars and workshops.

Currently, the government undertakes internal discussions about the best implementation strategy and is expecting a pilot unit in the next couple of months.

The proposed system considers the hazard level associated with different locations, considering higher sampling schemes in high risk farms, as well as an information system to allow transparent and efficient data exchange and public outreach. Some relevant elements of the proposed system are:

- a third party certification system, with accreditation of certifying bodies and laboratories;
- a geographical approach (Geographical Certification Units/Areas; GCU) to centralize the certification process around distinguishable aquaculture zones, producing scale economies thus lowering individual costs of certification process;
- generation of an entity (Certification Secretariat) which controls the operation of the system, including management of operational funds; and
- a vulnerability classification criteria which is farm specific with regards to compliance to RAMA.