

## CONTRIBUTING TO SUSTAINABLE AQUACULTURE IN LATIN AMERICA THROUGH TECHNICAL COOPERATION PROJECTS (TCPs) IN BRAZIL AND CHILE

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*A small shrimp farm in Pernambuco State, Brazil*

Aquaculture is growing exponentially in Latin America with salmon, shrimp and tilapia as the leading cultured species. Most countries in this region are showing a rapid growth of the sector, thus, having important social and economic effects on regional and local economies, mostly through medium and large-scale commercial aquaculture. However, continued growth of the sector will need greater organization and coordination between the private sector and governments, in particular, to insure a larger social impact by strengthening small-scale, family-based and rural aquaculture. On the other hand, it is important to make sure that environmental considerations are formally part of aquaculture management.

Two on-going projects deal with these issues. The [TCP/BRA 3001 – Institutional Strengthening of the Aquaculture and Fisheries Secretariat of Brazil](#) - was formulated in 2003 at the request of the Brazilian government to strengthen the newly created Fisheries and Aquaculture Secretariat (SEAP/PR) and started in 2005. Although aquaculture is considered the activity with the most relevant growth and production in the fisheries sector, policies addressing all the complex issues from legal aspects to productive chains and technological development were lacking. Therefore, improving the technical capacity and policies for sustainable aquaculture development were considered a priority. Thus, the objective of the TCP is to strengthen the ability of SEAP/PR in developing the fundamental infrastructure on

information, legal, and technical components which are essential to support and enhance the capacity of the new secretariat. Of particular relevance has been the component on strengthening strategic planning ability and technical capacity for sustainable aquaculture development. To achieve this, there have been three successful seminars with SEAP personnel in Brazilia. The first seminar was aimed to assess the technical capacities of SEAP personnel identifying major weaknesses and strengths towards a strategic planning for aquaculture with special consideration to family-based/rural aquaculture. Following this diagnosis, two subsequent seminars were planned and adapted to fill some of the weaknesses identified during the first seminar. These included: (a) institutional strengthening for sustainable development of aquaculture; and (b) management of environmental and health issues for sustainable aquaculture. These activities have contributed successfully to the institutional capacity and to improving the interaction between the private sector and government institutions, as well as within government institutions. We shall see a much improved Secretariat as a result of the project.

The second project, [TCP/CHI 3002 - Certification of Compliance to Aquaculture Environmental Regulation in Chile](#) - started in 2005 and is being implemented by CONAMA (National Commission for the Environment). Chilean aquaculture, has been one of the fastest growing in the world (18 percent average annual increase in the past 10 years) reaching in 2004, a volume of 694 thousand tonnes, with an export value of US\$ 2 400 M, 80 percent of which is represented by salmon and trout. The activity has had strong economic and social impacts especially in the southern zone of the country previously less developed and more rural. However, due to the rapid growth of aquaculture and its spread in areas with more or less pristine waters of the country, their environmental sustainability becomes a concern for society and a challenge for the development of the sector. As a way to insure sustainability, in December 2001, the Fisheries Secretariat launched a new law for the [Environmental Regulation of Aquaculture \(RAMA\)](#). However, the State does not have the means to verify compliance to this regulation.

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Such limitation triggered the submission of the above TCP project to develop an evaluation and certification system for the compliance of the RAMA.

The TCP project is expected to produce a tool for the verification and certification of the compliance to RAMA, to be applied immediately on a voluntary basis and is likely to be binding on the longer term. The project includes a very active participation through seminars and workshops, of all stakeholders, namely, the industry, farmers, environmental consultants and laboratories, NGOs and the different institutional agencies. The economic and legal implications are also deeply discussed.

The certification process consist of certifying the laboratories and technical personal providing the service on environmental sampling/monitoring and further working with certifying institutions which will take care of accreditation concerning compliance to the RAMA. This includes the direct hiring of consultants or laboratories to verify the different environmental parameters considered as indicators.

The final certification package will constitute a pioneering step for aquaculture sustainability.

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*Photo top left: Children showing shrimp harvest from a family farm in the vicinity of Recife, Brazil*

*Top right: Environmental monitoring of sediments with a grab for the compliance of the RAMA (Environmental Aquaculture Regulation) in southern Chile*

*Bottom left: A rural shrimp farm in the vicinity of Recife, Brazil*

*Bottom right: Salmon farms in the Reloncavi Estuary, Southern Chile*

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