

Support for the strengthening of aquaculture programs in Michoacan State, Mexico

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Apoyo al fortalecimiento de programas acuícolas del Estado de Michoacán

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BACKGROUND

Fisheries include a variety of activities aimed at using aquatic resources. The sector specializes in capture and culture of these resources, and optimizes their utilisation to extract maximum value. In Mexico, fishing activities form part of the national economic development; fishing represents the cultural identity of native fisherfolks from different coastal zones and has a strategic importance for food production, employment generation and economic income for the population. To this end, it was considered important to support the initiatives and institutional efforts of the federal government in the State of Michoacan to boost, with solid scientific and technological knowledge, the integration and strengthening of the fisheries sector within an overall framework of technological independence, ecological compatibility and social equity to generate the benefits that the national society demands.

The project was requested by the head of the Commission for Fisheries in the State of Michoacan (COMPESCA), Ms. Catalina Rosas Monge, to promote the rational

and sustainable use of fisheries and aquaculture in Michoacan using appropriate technology and infrastructure for the capture, culture, industrialization and commercialization of fisheries products as well as to call upon the different production and social sectors related to the activity to build a new strategy of organization and action, in addition to promoting gender equity and food security.

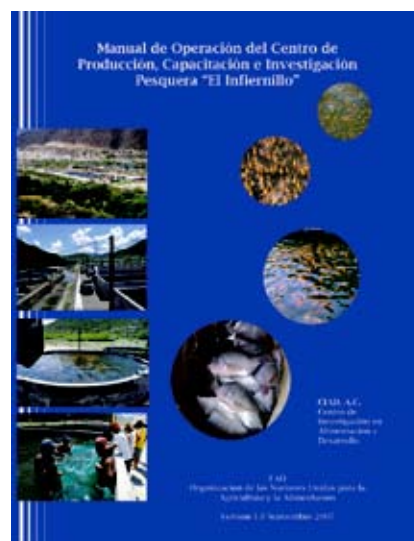
Counterpart implementing agencies include the Universidad Michoacana de San Nicolas de Hidalgo (INIRENA-UMSNH) in Morelia, Michoacan State and the Centro de Investigacion en Alimentación y Desarrollo (CIAD, A.C.) in Mazatlán, Sinaloa State.

The project commenced in October 2006 and was completed in February 2008. Dr Arturo Chacón Torres served as the National Project Coordinator as well as National Consultant on aquaculture. Backstopping was provided by FAO's Aquaculture Management and Conservation Service (FIMA) and Fish Utilization and Marketing Service (FIU).

OBJECTIVES

The main goal of the project was to improve the working conditions and livelihoods of aquaculturists and fisherfolks through sustainable management of resources from different regions in the state of Michoacan. The immediate objectives of the project were to:

- a. write an Operations Manual for the start up of a fish hatchery called Centro de Producción, Capacitación e Investigación Acuícola "El Infiernillo"



Operations Manual for the Centro de Producción, Capacitación e Investigación Acuícola "El Infiernillo"

and conduct training for the hatchery staff; formulate a management plan for inland fisheries and aquaculture for the Melchor Ocampo dam;

- b. prepare and conduct a practical training course on aquaculture business management for small farmers in the region, and develop a marketing study for tilapia, catfish and trout in selected municipalities.

The operations manual for the start up of a fish farm hatchery was written by staff at the CIAD, A.C. in Mazatlan. The INIRENA-UMSNH prepared the management plan for inland fisheries and aquaculture for Melchor Ocampo dam. The National Consultant on socio-economics, Mr. Antonio Martir Mendoza, prepared the socio-economics and marketing studies of the project.

ASSISTANCE/RESULTS

The following assistance were provided:

Two studies on marketing and socio-economics:

- a. marketing study for tilapia, catfish and trout in the State of Michoacan, specifically in local markets in Morelia, Pátzcuaro, Uruapan, Apatzingán, Lázaro Cárdenas, Zamora, Azuayo and Zitacuaro;
- b. socio-economic study of inland fisheries communities adjacent to the Melchor Ocampo dam.

Two capacity building training courses on:

- a. operation of fish hatchery “Centro de Producción, Capacitación e Investigación Acuícola El Infernillo”; and
- b. managerial and marketing capacities for small-scale farmers in Michoacan State.

Technical manual and studies:

1. Operations Manual for the “Centro de Producción, Capacitación e Investigación Acuícola “El Infernillo”.
2. Management plan for inland fisheries and aquaculture for the Melchor Ocampo dam comprised of three documents:
 - a. Fisheries and limnological study for the Melchor Ocampo dam;



Fisheries and limnological study for the Melchor Ocampo dam



Rural aquaculture farmers on a Training course on managerial and marketing capacities in Villa Madero, (Michoacan State, Mexico)

- b. Management plan for fisheries and aquaculture in the Melchor Ocampo dam following the Code of Conduct for Responsible Fisheries (CCRF); and
- c. Management plan according to the Terms of Reference of the federal government of Michoacan.

CONCLUSIONS

While the project had a very small budget (i.e. US\$65 000), without fund provision for follow-up activities and ambitious in scope, it was successful in achieving the major objectives.

The start of operations of the first fish hatchery will have a major impact to aquaculture development in Michoacan and the region. The operations manual will guarantee optimal results from the hatchery and can be used as a model for the region.

The management plan for inland fisheries and aquaculture for the Melchor Ocampo dam includes, for the first time in the region, applied the principles of the CCRF. The plan could be used as a model to follow for the other 260 dams in this state.

Results from the marketing study on tilapia, catfish and trout in Michoacan will enable the federal and state governments to develop a strategic plan to improve fisheries development.

The training course on managerial and marketing capacities for small-scale farmers has favoured a change of attitude towards improvements in fish utilization and marketing.

Based on the above, the project is expected to have a large impact on aquaculture and inland fisheries development in Michoacan State, Mexico. The technical assistance

provided by FIMA/FIIU will improve the management of aquaculture and inland fisheries and should improve fishermen and farmers livelihoods.

FAO's role in this project is very relevant and timely when the surge in aquaculture activities becomes more and more evident in this state and therefore the need to enhance its role for rural development.

The achievements of the Project should provide the state government with the momentum to continue the promotion and, most importantly, the implementation of action plans at the short-, medium- and long-term for the rational and sustainable use of fisheries and aquaculture in the state of Michoacan. This process is continuing and COMPESCA should try to make every effort to continue consultation with relevant stakeholders.

FOLLOW-UP ACTIVITIES

Current follow activities to this project, funded by FAO Mexico, that are also relevant and applicable to other countries in Latin America and the Caribbean include:

- (i) a practical manual for rural aquaculture in Mexico (i.e. an advanced version of "FAO Training Series: Simple methods for aquaculture");
- (ii) consultation and discussion workshop to enhance the management plan for inland fisheries and aquaculture for the Melchor Ocampo dam; and
- (iii) a product of origin labelling system/scheme (e.g. for tilapia) to give local farmers a comparative advantage over imports for same products from other countries.

Convention on Biological Diversity's Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA 13): Side Event on Protecting Biodiversity through an Ecosystem Approach to Aquaculture and Enhanced Biosecurity organized by the Fisheries and Aquaculture Department of FAO

The Fisheries and Aquaculture Department participated in the CBD SBSTTA 13 through a side event on Protecting Biodiversity through an Ecosystem Approach to Aquaculture and Enhanced Biosecurity organized on 21 February 2008 at the Austria Room of FAO Headquarters, in Rome, Italy.

Dr Jorge Csirke, Director of FIM, and Dr Devin Bartley, chaired and facilitated the side event, respectively. Two speakers from FAO, Dr Doris Soto gave a brief introduction on the relevance of the ecosystem approach to aquaculture and Dr Melba Reantaso presented aquatic biosecurity approaches to protect biodiversity. Three invited speakers spoke as follows: (i) Mr Alexander Wainberg, an aquaculture practitioner from Brazil, spoke about the challenges and benefits of an ecosystem approach to aquaculture: implications for biodiversity conservation from a farmer's perspective; (2) Dr Michael deShield, a regulatory officer and practicing veterinarian shared the experience of Belize Agricultural Health Authority in protecting biodiversity through an integrated biosecurity regulatory framework; and (3) Dr Roger Pullin, an aquatic biology consultant from the United Kingdom and currently living in the Philippines, spoke about managing aquaculture genetic resources with an ecosystem perspective.