



## Nicaragua plans for sustainable development of small-scale aquaculture

[http://www.afspan.eu/modules/news/article.php?article\\_id=31&title=nicaragua-plans-for-sustainable-development-of-small-scale-aquaculture](http://www.afspan.eu/modules/news/article.php?article_id=31&title=nicaragua-plans-for-sustainable-development-of-small-scale-aquaculture)

Posted on 4/3/2014 | 593 reads | Tags: [Better management practices](#), [Food security](#), [Nicaragua](#), [Nutrition](#), [Policy](#), [Poverty](#)

*The national plan for the sustainable development of small-scale aquaculture and limited resources (APERL), an alternative for growth and poverty alleviation for smallholder farmers in Nicaragua.*

The Nicaraguan Institute of Fisheries and Aquaculture (INPESCA) is currently executing a program to support aquaculture in rural areas of Nicaragua, known as the national plan for sustainable development of small-scale aquaculture and limited resources (APERL). This program aims to strengthen small-scale aquaculture in Nicaragua and ensure food security for vulnerable households, while taking on the challenge of integrating aquaculture with the environment in a sustainable manner.



So that aquaculture in Nicaragua may soon reach an important role in food security at the national level, the APERL program has considered the protection of the environment, as well as adaptation to changes in the environment and biodiversity. This has been done using as a guide the human development and food security policies of Nicaragua, as well as the long-term vision defined by the industry itself, articulated through key ministries, namely: Ministry of Environment and Natural Resources (MARENA), Ministry of Agriculture and Forestry (MAGFOR), the Nicaraguan Institute of Fisheries and Aquaculture (INPESCA), and the Ministry of Foreign Affairs (MINREX). External entities such as regional government offices, universities and producers have also helped in the articulation of the project.

APERL consists of nine lines of development, in accordance with national objectives, strategies and specific action lines including natural resources, organisations, instances of government, plans, programs, incentives and financing, production systems and production inputs, health, safety, traceability, marketing, laws and regulations; human capacity, education, training and food safety.

The main actions identified by APERL to be completed in short term are:

- To form and regulate a Sub National Aquaculture Committee under the frame provided by the National Commission of Aquaculture and Fisheries (CONAPESCA).
- To establish the National Commission of Aquacultural Health.
- To strengthen INPESCA, and in particular the Directorate of Aquaculture, for it to evaluate, implement, and oversee the performance of APERL.
- To incorporate APERL into major government programs for socioeconomic development and poverty reduction through the promotion of primary production: Production bonus, PRORURAL, etc., as well as to continue and strengthen the development of international links for the establishment of aquaculture projects in Nicaragua through external financing by the Bolivarian Alliance for the Americas, and ALBA Pesca.
- For the manufacturing sector, to start the development of viable small-scale projects (investment) with tilapia, through the recovery of infrastructure currently unused. Also, for the marine environment, to consolidate research and small-scale production of farmed fishes.
- To continue to strengthen the participation of Nicaragua in regional blocks of aquaculture cooperation: Aquaculture Network of America (RAA), Organization of Fisheries and Aquacultural Sector of the Central American Isthmus (OPESCA – GRUTAC).



APERL's vision is to develop in a sustainable way, causing no harm to the ecosystem, being respectful of the current legal framework, while also being innovative, inclusive of all individuals (no gender discrimination), and will improve the quality of life of communities and will promote the organisational growth. From the production viewpoint, APERL seeks to meet quality and health standards. APERL also seeks to respect animal welfare, to be economically profitable, to contribute to alimentary security of individuals, and to be mindful of climate change. Progress in the implementation of the APERL plan has been as follows:

- Implementation of the pilot project Nile-tilapia culture in its GIFT variety in Puerto Morazán, Chinandega (sponsored by FAO).
- Implementation of the sustainable rural aquaculture project with a focus on food security and commercial approaches in the municipalities of Pueblo Nuevo, San Francisco Libre, Estelí, Matagalpa, Teustepe, Morrito, Managua, León and Tonalá (eight producers benefited from materials and technical assistance) (sponsored by the Organization of Fisheries and Aquacultural Sector of the Central American Isthmus, SICA-OPESCA).
- Follow up on the dotted red snapper farming project in Asseradores, Chinandega.
- Follow up on projects concerning black shell fattening in the Western area of the country.
- Workshop on load capacity and aquaculture zoning.
- Reactivation of the tilapia farming project in the community of Los Horcones, municipality of Pueblo Nuevo, Estelí.

Through this support program over 307 small tilapia farms have benefited; this translates into more than 250,000 kg of the fish sold. Also, between 364,000 – 455,000 kg of shrimp is marketed for procurement of substitute products and to improve the diet of families in western Nicaragua, contributing to food security and improving the living standards of the families most vulnerable in the aquaculture and fisheries sector.

According to INPESCA, 50 families of 15 producers each have benefited from seed, feed and technical assistance. These families now have the appropriate infrastructure to farm tilapia, black scallops, shrimp and red snapper. However, the lack of follow-up programs and the high cost of balanced aqua-culture feeds - much of which has to be imported because there are no specialised aquaculture support business in Nicaragua - has hindered the full development of these projects.

Despite the difficulties, the experience has largely been a positive one because producers managed to sell part of the production (although not all of it) to the local market. Self-consumption also helped to improve the diet of families in the program.

The most important mechanism to carry out the strategic priorities, plans and programs is based on the Alliances and Shared Responsibilities Model that is promoted by the government as part of its policy for managing the local human development. The Alliance Model aims to achieve a collective vision regarding:

- Identification of priorities (species, technologies, producers, size of investment, infrastructure, etc).
- Acquisition of financial resources and counterparts.
- Definition of criteria for the selection of the protagonists of the programs and projects.
- Identification of individuals interested in supporting the implementation of programs, plans and projects.
- Conclusion of commitments and shared responsibilities.
- Definition of operating legal instruments (letters of agreement, covenants, memorandums of understanding, etc).
- Preparation, signing, implementation and monitoring of agreements.

In the case of aquaculture, the following entities have helped in the promotion of the project:

- The National University of Agriculture (UNA).
- National Autonomous University of Nicaragua (UNAN-LEON).
- Training, Research and Environmental Development Institute (CIDEA-UCA).
- Private companies including Mariscos 4 Estaciones, Central American Fisheries, Servicios y Contrataciones S.A., SERVICOSA and Camarones de Nicaragua.
- Guilds (National Aquaculture Association ANDA, Chamber of Fisheries of Nicaragua CAPENIC, APEMAC).
- Development Institute, INIFOM (Municipal Mayors).
- Government Institutions (MAGFOR, MARENA, INATEC, INTA, MEFCA).
- Offices of Citizen Power.
- FAO.
- Regional Cooperation Agencies (RAA, OSPESCA).

The project is funded by the Ministry of Finance and Public Credit, counterparts of direct project partners, as well as through non-refundable grants or partially refundable grants from cooperation agencies.

Successful projects include those of tilapia growth for food security in northern Nicaragua, red snapper farms in Asseradores, Chinandega and shrimp farms in Puerto Morazán.