



# FAO in Action

## Learning how to farm fish

### FAO's aquaculture training helps rural development

Rep Hing knows 24 different ways of preparing fish. She grills, fries, salts, steams and ferments them. Luckily, both she and her family of 25 like fish. They eat fish almost every day, raising them right behind their house in the Siem Reap province in northern Cambodia.

Two years ago Ms Rep participated in an FAO aquaculture training course. "We learned how to build and repair a fish pond, how to raise fingerlings and how to produce the feed for the fish," said Ms Rep, who today has two fish ponds with five different kinds of fish. She has also received training in farming fish in her rice fields and raising fingerlings. "It is not difficult to farm fish and it is good for our family," she said. "We eat better and we also earn money."

Since 1999, FAO has trained more than 800 farmers in family fish pond management in Siem Reap. The purpose is to contribute to food security and income generation in the area but also to reduce the migration of farmers to the nearby Tonle Sap Lake, where overfishing is a serious problem. The training is part of an extensive participatory natural resource management project in the Tonle Sap region, managed by FAO.

Aquaculture is an important contributor to poverty alleviation, food security and social well-being in many countries like Cambodia. Approximately 90

percent of global production comes from developing countries, and a large proportion of this comes from small-scale producers such as Ms Rep.

"Aquaculture plays a crucial role in rural development," said Rohana Subasinghe, FAO Senior Fisheries Resource Officer. "It can not only provide good nutritious food for households and help small-scale farmers survive bad harvests, but it can also create jobs and increase income in local communities."

Aquaculture contributes almost a third of global fisheries landings. Today fish represents 15.9 percent of the total animal protein supply worldwide, higher than all other meat products. People living in Asia and Africa are much more dependent on fish as part of their daily diets than are people living in other regions of the world. An example is the Philippines, where more than 50 percent of the protein intake comes from fish.

Ms Rep, who also grows rice, melons, coconuts, bananas, mangoes and sugarcane, wants to dig a new pond and raise even more fish next year. She especially wants to expand the selling of fingerlings. "Several neighbours have already bought my fingerlings but we can easily sell more. People around here can see that my family is doing better, and they want to follow our example," she said.



# Facts and figures

## About aquaculture and fisheries

People have been farming fish for thousands of years. Today, a wide range of plants and animals are grown in aquaculture.

With an overall growth rate of 11 percent a year since 1984 aquaculture has been the world's fastest growing food production sector for nearly 20 years, compared with a 3 percent increase for livestock meat and 1.6 percent increase for capture fisheries.

Total aquaculture production in 1999 was about 42.77 million tonnes, valued at US\$53.56 billion. Nearly one third of all the fish we eat is currently produced by aquaculture. Asia, which accounts for 90 percent of global aquaculture production, is clearly the world's leader.

In 1997, freshwater aquaculture (predominately finfish) accounted for over 45 percent of total world aquaculture production. Plants and molluscs from marine waters contributed about 20 and 24 percent respectively. While brackish water aquaculture currently contributes less than 5 percent to the world total (by weight), production is mainly shrimp so its share by value is about 15 percent.

Several low-income food-deficit countries are big aquaculture producers. In these countries aquaculture contributes to poverty alleviation and to the enhanced supply of fish products to poor people in rural and urban areas. Many developing countries export aquaculture products and in many cases aquaculture has become a major source of hard currency, which is used to invest in further development or to service foreign debt.

As an inexpensive source of a highly nutritious animal protein, aquaculture raises levels of nutrition and alleviates poverty, particularly in the world's poorest countries. FAO's Special Programme for Food Security (SPFS) has made aquaculture development a priority under its diversification component.

Integrated aquaculture has a variety of benefits for farmers in addition to the production of fish for consumption or sale. In Asia, for example, rice

farmers use certain species of fish to fight rice pests such as the golden snail. With rice-fish farming, they boost their rice yields and harvest the fish. Under FAO's SPFS programme, farmers in Zambia are introducing small ponds into their home gardens for irrigation and aquaculture. Mud from the bottom of fish ponds is also an organic mineral-rich fertilizer.

In some cases, rapid and unregulated growth in aquaculture production has led to environmental damage, triggered conflicts over scant resources and alienated public opinion. In response, FAO and its partners have placed special emphasis on developing strategies for policy and planning that address the social, environmental and regulatory issues surrounding sustainable aquaculture development.

The mission of the Fisheries Department of FAO is to facilitate and secure the long-term sustainable development and utilization of the world's fisheries and aquaculture.

FAO has more than 66 ongoing field projects in fisheries, including not only specific fisheries projects, but also multi-disciplinary projects where fisheries comprise a significant component, and which are organized with a global, inter-regional, regional or national scope.

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