

## Fiji launches milkfish aquaculture project for food security

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A new community-level mariculture project that is directly aimed at food security has been initiated in Fiji this year. The Vitawa Aquaculture Development Project at Vitawa Village in Ra Province was officially opened on 5 March 2010 by Fiji's Minister for Primary Industries, Jokatani Cokanasiga, upon completion of three nursery ponds and three grow-out ponds worth FJD 54,000 that have been under construction since late 2009.



*Fiji's Minister for Primary Industries, Jokatani Cokanasiga with JICA Official Supporter, judo champion Sisilia Naisiga, resident JICA representative Jiuchiro Sasaki, and FAI director Hideyuki Tanaka examine milkfish fingerlings caught near Vitawa and ready for release into the project's culture ponds.*

The project intends to raise milkfish *Chanos chanos*, which can be caught in abundance as small fingerlings on intertidal mudflats in the surrounding area. The Japan International Cooperation Agency (JICA), the South Pacific Liaison Office for Fisheries and Aquaculture International (FAI), and the Fiji Department of Fisheries collaborated to construct the farm and to train villagers on milkfish capture and culture techniques. Resident JICA representative, Jiuchiro Sasaki, and FAI director, Hideyuki Tanaka, were also present at the Opening.

The project cost is about FJD 400,000 and is being funded by JICA with the aim of improving the lives of the villagers. It is a food security project operated by the Vitawa community, as a low-cost way to increase the amount of fresh fish available to village households.

“The major concern of the people of Ra was the decrease of coastal fisheries resources due to over fishing and the illegal use of dynamite,” said Mr Cokanasiga. “Milkfish is one of the most important aquaculture species globally, and is a successful industry in Asian countries like Philippines, Taiwan and Indonesia.”

Previous surveys by Fiji Department of Fisheries had showed that other possible milkfish fry collecting grounds for pond-based culture in Viti Levu are Nasese in Suva, the Sigatoka River mouth, Raviravi near Ba, Deuba River mouth, and Tokotoko. In Vanua Levu, Nakalou Village, Lekutu and Dreketi areas are potential sites for fingerling collection.



*The culture pond system for milkfish constructed at Vitawa village in Fiji.*

Freshwater aquaculture for food security is not a new concept in the Pacific region although mariculture projects have generally tended to be high-tech operations that raise high-value species for commercial sale or export. If mariculture for food security is to be successful, it is important that costs be kept low. The goal of JICA and FAI training to the Vitawa farm managers is to avoid the use of fish feed that must be bought with “money-up-front” by the participating community. Careful pond management techniques to encourage algae and plankton blooms are being demonstrated so that fish can be grown entirely on natural food. Water in ponds is exchanged by tidal flushing, so no pumps are needed.

Mr Cokanasiga continued, “This Vitawa Aquaculture Development Project is geared for the utilization of land (mudflats), using the abundance of milkfish fingerlings present in the surrounding areas, and it will assist in addressing present scarcity of readily available fish for food security, with later plans to expand the venture into an income generating scheme.”

“For the maximum utilization of the fish ponds, there are opportunities to expand and develop through

polyculture the farming of milkfish, but like all other projects, challenges and problems need to be overcome first, before we consider extending this activity to other areas in the country.”

“Whilst this is the beginning, we hope that JICA will look at the long-term development of projects of this nature and continue its support for at least another five years. This will be in terms of training and development of further projects in order to sustain the development of marine resources in this part of Viti Levu,” added Mr Cokanasiga.

The first harvest of milkfish stocked into the Vitawa ponds was expected to take place in August this year, however some initial teething problems have been encountered in pond management, which reduced the growth rate and survival of the first batch of fish. Participants have gained experience in managing pond water exchange for the purposes of maintaining algal blooms adequate for fish nutrition, and providing adequate water exchange to mitigate high evaporation rates and consequent high seawater salinity for which some inshore localities of Ra Province are famous.



*Milkfish (Chanos chanos) fingerlings caught from surrounding mudflats. This size is useful for stocking culture ponds.*