

New aquaculture project that targets communities

While community-based aquaculture is important in addressing food security, it is not without a number of key challenges. Under the auspices of the Australian Centre for International Agricultural Research (ACIAR), SPC is commissioning a new project to address some of these challenges. A key element is to focus on species that have a demonstrable track record of suitability for aquaculture in the Pacific Islands region. The project will address key constraints such as capacity, and feed and seed supply, which are particularly challenging in remote coastal and inland communities. The outcome of detailed country consultations during the project's formulation will be to place emphasis on tilapia culture in Fiji, Samoa and Vanuatu; freshwater prawn culture in Fiji and Vanuatu; and sea cucumber (sandfish) culture in Fiji and Kiribati.

It has been difficult to quantify: 1) the number of people engaged in aquaculture, either full time or part time; 2) the roles of women and children in community-based fish farming; and 3) how economies of scale could be enhanced to bring aquaculture to a higher level. One thing is certain though: community-based aquaculture must be formulated around the way of life of the rural people who most need the support.

By identifying and addressing these and other challenges, the project's goal will be to find ways of increasing the production of promising aquaculture commodities, and better understanding the factors relating to greater engagement in aquaculture among communities. The project's objectives are to:

- ✓ **Address technical and capacity constraints in community aquaculture through interventions in four countries.** This will necessitate improving appropriate hatchery and grow-out systems and trainings to meet national requirements for seed supply, and improving the marketing of products with the aim of increasing production and investment.
- ✓ **Apply and evaluate community-based approaches to strengthen the impacts of small-scale aquaculture.** This includes organising farmers into clusters and identifying those farmers who will be able to operate as lead farmers to specialise in fingerling or feed production to supply others in the group.
- ✓ **Ascertain the impacts that community-based aquaculture can have on household income, nutrition, and status of women and children in the four countries.** This will involve undertaking detailed socioeconomic surveys of households, disaggregated by gender and age group, in order to determine the level of engagement in aquaculture activities, income and fish consumption.
- ✓ **Integrate community sea cucumber aquaculture with coastal fisheries management.** The purpose here will be to strengthen community-based fisheries management approaches, and involves the development of sandfish hatchery and release techniques, and applying these approaches as an incentive to introduce management rules for fisheries.

The project requires a multi-disciplinary effort that spans the biological, technical, economic and social science fields. Specialist inputs will also be provided from other partner institutions in the region such as the WorldFish Center, James Cook University, Queensland University of Technology, and the University of the South Pacific Institute of Marine Resources. Expertise from within SPC's Fisheries, Aquaculture and Marine Ecosystem Division and other programmes within SPC will also be used (e.g. in the areas of community-based management, gender and statistics). Four Pacific Island country governments and partner administrations are involved: Fiji Ministry of Fisheries and Forests, Kiribati Ministry of Fisheries and Marine Resources Development, Samoa Ministry of Agriculture and Fisheries, and Vanuatu Department of Fisheries. These agencies will be bringing their experience of working with communities on the main species of interest. The identification and formation of links with suitable partners from other national government agencies, civil society organisations and private sectors will also be part of the implementation process.

SPC has recently recruited Beero Tioti (Kiribati) as the project officer who will oversee the implementation of the new community-based aquaculture project in the selected countries.

It is hoped that one result of the project will be a better understanding of the future role of Pacific Island aquaculture (at the community level) in meeting food security requirements and providing livelihoods in response to population growth, increasing demands for cash income, and urbanisation. In addition, the project will explore ways for aquaculture to integrate with fisheries and, where possible, provide incentives for communities to support better coastal fisheries management.

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Beero Tioti, new SPC Community-based Aquaculture Officer

SPC's Aquaculture Section has hired a new Community-based Aquaculture Officer, Beero Tioti. Beero worked previously with the Kiribati Ministry of Fisheries and Marine Resources, and has also worked with the Australian Agency for International Development in Kiribati as a Program Manager for the Community Projects and the Fisheries Incentive Program. He holds a bachelors degree in biology from the University of Papua New Guinea and a Master's degree in aquaculture from James Cook University in Australia.

Beero took up the post of Community-based Aquaculture Officer in May 2014 and his background encompasses both marine and brackish water aquaculture. Much of his recent work has been in assisting with the establishment and management of giant clam farming with the Kiribati Fisheries Department and a private sector company involving rural communities. Along with SPC's Aquaculture Adviser Robert Jimmy, Inland Aquaculture Specialist Dr Tim Pickering, Mariculture Specialist Ruth Garcia, and SPC's Fisheries, Aquaculture and Marine Ecosystem/Increasing Agriculture Commodity Trade Aquaculture Officers, Avinash Singh and Jone Varawa, Beero's arrival brings the strength of SPC's Aquaculture Section's back-up to six.

Beero's role with the SPC/Australian Centre for International Agriculture Research community-based aquaculture project is to assist partner countries in strengthening aquaculture production systems in order to improve nutrition and livelihoods for local communities.



Beero Tioti (grey shirt) with other Suva-based members of the SPC Aquaculture team, working on experimental fishpond cleanup at the Naduruloulou Aquaculture Research Station of the Fiji Ministry of Fisheries and Forests.