

## The Pacific Community and the Asian Institute of Technology work together towards sustainable aquaculture development in the Pacific

*The Aquaculture Section of the Pacific Community (SPC) and the Aquaculture Division of the Asian Institute of Technology (AIT) began a close collaboration in the area of sustainable aquaculture development in 2016. Within the framework of the project funded by the New Zealand Government – ‘Sustainable aquaculture development for food security’ – the two organisations have carried out joint training and capacity building exercises on aquatic biosecurity and animal health.*



Visiting a typical Nile tilapia farm using floating cages. (image: Ruth Garcia-Gomez, SPC)

AIT promotes technological change and sustainable development in the Asia-Pacific region through higher education, research and outreach. It was established in Bangkok in 1959 and is now a relevant regional postgraduate institution that actively works with public and private sector partners throughout the region.

The SPC/AIT joint training and capacity building activities were carried out at the AIT campus and laboratories in Bangkok, Thailand, with participants from 11 Pacific Island countries or territories (PICTs): Federated States of Micronesia, Fiji, French Polynesia, Marshall Islands, New Caledonia, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga and Vanuatu.

Trainees were fishery and biosecurity or quarantine officers who are responsible for monitoring aquaculture and fisheries activities in their respective countries.

The first joint training was conducted in 2016, and focused on aquatic biosecurity protocols and operations, including quarantine, border control, certification schemes and import/export standards.

Building on the good results obtained during this first training, a second training was organised in 2017, focusing on freshwater finfish diseases, with a special emphasis on diseases affecting Nile tilapia and the common carp (other carps were also considered). These species are the most commonly farmed freshwater fish species in the Pacific Islands region. The objective of the training was to improve the capacities and skills of participants on freshwater fish diseases diagnosis, prevention, control and treatment. The training workshop placed special emphasis on external and internal parasites affecting freshwater fish.

A third training on freshwater finfish parasites was conducted from 26 to 30 November 2018. Participants from 11 PICTs were trained on the most relevant parasitic diseases that affect small-scale freshwater farming. It should be noted that the majority of PICTs are currently involved in freshwater aquaculture. These farming activities vary from small-scale subsistence aquaculture operations to medium- to large-scale, semi-commercial operations.

In addition to these training workshops, SPC and AIT also collaborate in laboratory analyses of diseases of mandatory



A Nile tilapia farm using *hapa* nets was visited during field work in Thailand. (image: Ruth Garcia-Gomez, SPC)

declaration in aquatic animals. The AIT laboratory has been used as a reference laboratory for screening notifiable diseases of shrimp and Nile tilapia specimens from the Pacific Islands, as there no such laboratory capacity exists within the region.

It should be noted that Nile tilapia, although not subject to any notifiable disease listed by the World Organisation for Animal Health, is currently under the radar as a host of an emerging virus called the tilapia-lake virus (TiLV). Nile tilapia from Pacific Islands countries have been screened for this virus at the AIT laboratory using New Zealand funding. All tests have been negative so far.

Building on the success of the three first training workshops, SPC and AIT, as two reference institutions in the Pacific region, intend to continue their close collaboration in aquaculture and aquatic animal health in the future.

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Taking samples of laminar gills for microscopy examination. (image: Ruth Garcia-Gomez, SPC)