

Expanding Pacific horizons¹

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Econnect Communication

Climate change is projected to reduce the productivity of Pacific coastal fisheries over the coming decades. But how can we tell what is changing and whether the changes observed are being caused by climate change or other factors such as overfishing?

“The only way Pacific Island countries will know if productivity is changing, and what is causing that change, is by monitoring fish, invertebrates and coral over the long term to build up a time series of data,” explains Lindsay Chapman, who heads up SPC’s Coastal Fisheries Programme.

With nearly AUD 1 million in funding from AusAID, SPC’s climate change project is helping Pacific Island countries and territories do exactly that. Baseline data has already been collected and analysed for pilot sites in five countries — the Federated States of Micronesia, Kiribati, Marshall Islands, Papua New Guinea and Tuvalu — and the plan is to re-survey every two years.

To address the acute shortage of monitoring and analysis skills in the region, SPC has established the Pacific Islander Young Professional programme.

“Efforts to build capacity in the region have often been ad hoc, sporadic and of short duration,” says Chapman. “We are taking a longer term approach, with 12-month assignments for Pacific Islanders working in the field of marine science or conservation. Our aim is to develop in-depth technical skills, and to link these skills to the work being done at the national level in coastal fisheries.”

Leaving their homes and families, the first three young Pacific Islanders have now completed 12-month assignments based at SPC in Noumea, New Caledonia.



Maria Sapatu and two Fisheries Officers after a data collection dive in Kiribati.

¹ A shorter version of this article appeared in the magazine of Australia’s overseas aid programme, FOCUS vol. 27 n° 3 Oct–Dec 2012.

The fisheries officer from Samoa

Maria Sapatu, a senior fisheries officer with Samoa's Ministry of Agriculture and Fisheries, was the first person appointed to the programme in February 2011. Maria received intensive training from SPC's coastal fisheries scientists, including field training on survey methods in the Marshall Islands. She then analysed the Marshall Islands survey data and drafted a report before being put in charge of logistical arrangements for fieldwork in Tuvalu and Kiribati, and training her local counterparts in Tuvalu.

"I was used to managing smaller projects across a smaller area, and having the accounting people deal with budgets," she says. "At SPC, I was managing a budget for all logistics for three in-country surveys. It was good to be exposed to that — planning for a bigger region."

"I also really enjoyed being able to collaborate with fisheries officers in country, sharing what I've learnt about monitoring methods, sharing the issues. It's a two-way thing. I tell them what I know about Samoa and they share with me."

But being away from her one-year old daughter, Alda, was hard. "Alda was with me in Noumea for about 10 weeks and I went home for a few weeks at Christmas for her birthday. In between, I skyped her every day. I pretty much missed out on all the stages between age one and two — her learning new words, getting attitude. But I have many more years of attitude ahead!"

"When I got back to Samoa, I was placed in charge of all marine survey work. I trained about 20 people in the SPC monitoring methods and we are using them now to monitor sea cucumbers. I am also trying to upskill our monitoring people to use scientific names. The same common name is often used for more than one species so using the scientific name will give us more robust data. And I'm trying to improve our data storage system. Bringing together our many different databases onto one centralised database could give us new information for Samoa."

Thinking outside of the box, says Maria, is the most important thing she learned at SPC. She was also struck by the approachability of senior staff.

"The culture was very open at SPC, and I was inspired to come back and try that. Now, when my staff ask me a question out in the field, I take the time to explain. I want them to feel that I am not too busy to be asked."

The underwater environmentalist from Fiji

Watisoni Lalavanua from Bua, Fiji, began his 12-month assignment with SPC in July 2011. He works as a project officer with local NGO Partners in Community Development Fiji (PCDF).

"I work with communities, helping people manage their marine environment to have a healthy reef and, therefore, healthy fish stocks for food security," he says.

After initial field training in Tuvalu, Watisoni was made responsible for conducting the survey fieldwork for Kiribati, training his local counterparts and overseeing the local survey teams. Later, his role extended to the pilot sites in Micronesia and Papua New Guinea. Underwater work is what Watisoni loves most. He is a qualified advanced open-water diver.

"It's amazing to see the variety of living things down there with their different colours. To me, it shows that God is still the number one creator in the world."

Being away from his wife was the biggest challenge for the newly-wed Watisoni. "I got married on Wednesday, and left for SPC on Saturday for a year!"



Watisoni Lalavanua holding three hairy blackfish specimens during a sea cucumber stock assessment survey, Pohnpei, Federated States of Micronesia, March 2012.

Over the 12 months, he saw his family three times. He battled homesickness and, speaking no French, found it hard to communicate with the locals outside of work. The death of his grandmother, who brought him up, compounded his loneliness.

But he was determined to see his assignment through. “For me, I call it a sacrifice to boost my career as a young environmentalist and to provide bread and butter for my family.”

Back in Fiji now, Watisoni is looking after a climate change project and a community leadership project at PCDF. Being part of the natural resource management team means he can use the skills and experience that he gained at SPC, and share it with his colleagues. PCDF recently took part in sea cucumber assessment training organised by SPC. Watisoni helped to deliver the training.

His time at SPC has changed the way he thinks, not just about the marine world, he says, but about communicating with local people.

“Our communities need the best advice. Now, I am better at translating the scientific ideas into simple ideas in a language that they can understand.”

His confidence in dealing with people in senior positions has also been boosted.

“I have arranged logistics with heads of departments and people working at the national level in the region. I have built connections with heads of fisheries in other countries. This was challenging for me because I am used to working at the community level with the *mata ni tikina* (district leaders) and *turaga ni koro* (village leaders).”



Madi Kwarara (left) helping a trainee from Cook Islands during one of the database fundamentals training workshops held in 2012.

Some figures:

35 kg ▶ The amount of fish a Pacific Islander needs to eat each year to meet 50% of its protein requirements

100,000 tonnes ▶ The predicted shortage of fish there will be in Melanesia by 2030

62% ▶ The ratio of fish consumed in the Pacific that comes from subsistence fisheries

50–90% ▶ The ratio of animal protein provided by subsistence fishing for diets in Pacific Island coastal communities

Sources: World Health Organization; SPC

The information manager from Papua New Guinea

A computer programmer by profession, Madi Kwarara from Papua New Guinea (PNG) joined the SPC programme in July 2011 in an information management role.

She had previously worked with the PNG Quarantine and Inspection Authority, during which time she spent three years on attachment to SPC, installing a biosecurity information system across the Pacific.

As an SPC young professional, she developed a training course on basic database skills, which she later delivered to fisheries officers from 15 countries through four sub-regional workshops held in Noumea.

“The small island nations find it hard to manage their data because they lack either the equipment or the skills. Many fisheries officers don’t have IT skills so I had to make things simple in writing up the manuals.”

“It was rewarding to see people who had no idea about databases coming out after two weeks with a skill and a better understanding, and always at least one or two of them with flying colours. Having to relay that knowledge has also been good for me.”

Madi also learned how to set up mini-servers and installed them in Palau, Tuvalu and Kiribati, plus provided training in their use.

Not having a fisheries background was difficult for her at first.

“Everyone is busy, so I had to take the initiative to try and learn on my own about things like fish size and fish densities. That was the biggest challenge. But I managed to overcome this.”

And like Maria and Watisoni, she fought homesickness.

“I loved the experience at SPC and I loved New Caledonia. I came back with so many friendships. But I had a big family back home — a husband and four kids.”

“The two younger ones missed me a lot. My youngest, who was six years old, couldn’t live without me so after three months my husband sent him to Noumea with a relative who could babysit him when I was away on field trips.”

“It was really hard but I wanted to show my children that as a Papua New Guinean mother you can still achieve things, no matter how many children you have.”

“I also wanted to progress my career because I had just spent a year as a housewife in Brisbane while my husband studied for his masters there.”

Madi is now seeking work, preferably in PNG so that she can be with her family.

For more information:

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Ingraining the skills

In SPC’s view, the Pacific Islander Young Professionals programme has been an outstanding success.

“The programme has made a significant contribution to the region’s coastal fisheries science capability at the national level,” says Lindsay Chapman.

“Unlike a two-week workshop where little changes back in country, with a 12-month attachment the new skills are ingrained.”

“It’s also about developing skills that we can call upon in the future. For example, we can ask Maria to deliver training in Tonga if we can’t do it ourselves.”

SPC is offering more positions on the climate change project and plans to adopt the model in other areas of its fisheries programme. Fulutua Siaoisi from the Tuvalu Fisheries Department came on board in late 2012 and another position will be advertised in 2013.

“It has been very encouraging seeing these young people gain the skills and confidence,” says Lindsay, “and seeing their self-motivation in taking responsibility for organising the in-country work and delivering training. These skills are essential for identifying climate change adaptation needs in coastal fisheries. But to be sustainable, support must be provided to national institutions to utilise and retain the skills developed.”



Fulutua Siaoisi (4th from left) and Watisoni Lalavanua (3rd from right) with members of the communities of Ahus and Andra, PNG fisheries trainees from Moresby, Manus and Kavieng, and SPC staff (Ahus Island, Manus, PNG).