Providing scientific and technical support to countries in a COVID-19 world

Capacity building and collaborative work with country counterparts are two major activities of the Pacific Community's Coastal Fisheries Programme that had to be completely reorganised due to travel restrictions in the Pacific Islands region. Traveling to member countries to work with fisheries officers on a specific issue, conduct a field survey, or run a training programme was no longer possible and alternative solutions were used to continue providing scientific and technical support to Pacific Community (SPC) member countries.

The technologies to "meet in person" online already existed, but the current situation accelerated the use of video conferencing, remote assistance tools and the adoption of online and mobile solutions. This paper relates some of the alternatives to travel that were trialled, and lessons learned.

locations with a local facilitator. In training workshops, the local facilitator can also relay questions and issues that may arise during practical sessions. Moreover, the virtualization of the workshop allows for the participation of speakers from various countries with no associated travel costs.

Virtual workshops

In 2020, the Coastal Fisheries Programme conducted several virtual workshops using Zoom and Microsoft Teams, and several training formats were tested:

- Full-day training with participants in several locations, presentations and practise with online tools.
- Short presentations in the morning and practical practise videos recorded in the afternoon for later debriefing.
- Presentations in plenary and discussions in breaking groups.
- A mix of video, presentations, assignments, and presentations of assignment results.
- Consultation of focus groups of stakeholders facilitated by national authorities.

The use of video conferencing between SPC headquarters and national counterparts generally works but is still a challenge for places that rely on satellite communications for their internet connection. To reduce network and bandwidth issues, country participants were gathered in a limited number of locations that have good internet connection, such as campuses of the University of the South Pacific (when possible) or government offices.

Time and day differences across the Pacific also needed be taken into account when organising regional workshops involving participants from various time zones, and, often, the best option was to hold the video conference in the morning (Noumea time) and not on a Monday (as this is Sunday in the countries east of the international date line).

Virtual workshops require more preparation that in-person workshops to prevent technical glitches and more work to keep participants engaged for the duration of the workshop. They are generally easier to conduct when the participants previously met in person or are physically present in a few

Case study 1:

Remote focus groups in Nauru build an awareness campaign on fish aggregating devices (FADs)

In collaboration with SPC and the Nauru Fisheries and Marine Resources Authority (NFMRA), an Australian-based creative agency (S1T2) was engaged to help develop an awareness campaign on FADs, under the governance of the New Zealand-funded Effective Coastal Fisheries Management Project and the Pacific-European Union Marine Partnership (PEUMP) programme. As a first step, a research phase was conducted with the goal of working with target audiences to establish an information strategy and identify effective and efficient ways to develop an awareness campaign about artisanal FADs in Nauru.

Three remote focus group sessions were conducted with target audience groups – fishers, coastal communities, and women's and youth associations – during the week of 27 September to 2 October. The goal of these sessions was to engage target audiences in the process of identifying effective and efficient ways to develop a FAD awareness campaign in Nauru.

Each session ran for 90 minutes and was facilitated by S1T2 via Zoom, while participants gathered at the University of the South Pacific Nauru Campus, with NFMRA officers assisting.

Through focus group discussions it was determined that the majority of the general community did not know much about FADs. Even those with fishers in the family, or who may have seen FADs in the harbour, were likely to be unaware of what they really are, how they work, and their benefits. Participants across all focus groups agreed that it would be good for the wider community to be better informed about FADs. Following the focus group discussions, a campaign strategy was developed, with "FADs for family" as a core message of the Nauruan campaign.

Key comments by participants:

- "Fishing is a lifestyle for the people of Nauru. We go catch fish for a living."
- "I've known about FADs ever since I started diving. But I didn't know that there were a lot of fish around FADs, or that they attract fish."
- "FADs keep fishermen close to the island. It's safer for the fishermen"
- "Fish are the main source of food security. FADs are what bring the fish to the fishers."







Group photos from the focus groups with fishers and divers (top), community leaders (middle), and women's and youth representatives (bottom).

Online training

In addition to video conferencing, SPC is currently undertaking the production of online training modules and trialling the Moodle platform, a system used by a large number of universities in the Pacific such as University of the South Pacific, University of New Caledonia and University of Guam for distance learning. The SPC learning website will allow enrolled users to follow courses to acquire new skills or refresh existing ones when required. The Moodle mobile app allows the downloading of courses for offline viewing.

Online course creation by SPC staff is in progress as the development of a proper online course and curriculum is substantially different from a traditional PowerPoint presentation followed by practical exercises in a training room. Keep trainees engaged requires a mix of lessons, short introductory videos, reference materials, and quizzes and assignments.

The assessment of competencies for graduation in an academic context remains a challenge during the COVID-19 pandemic, but solutions such as video recording and assignments are currently being investigated.

Case study 2:

Online training workshop on fisheries monitoring, control and surveillance in Kiribati

Preparing a market inspection, improving communication skills, and learning how to use the compliance book were part of the Kiribati training on monitoring, control, surveillance and enforcement, organised from New Caledonia and New Zealand by SPC and the New Zealand Senior Compliance Adviser, thanks to funding from the New Zealand Ministry of Foreign Affairs and Trade. As part of the one-week programme, 30 fisheries officers participated in several exercises between online sessions. These included conducting inspections to improve their practices, creating draft scripts of radio dramas to anchor messages, and learning how to create a radio drama series.

After the fisheries officers drafted their scripts, each group presented its radio drama. The whole group then had the opportunity to peer review the radio dramas: Did they grab one's attention? Were the messages clear? Did they trigger the will to act?



Awareness and training videos

While SPC has a long history of producing training videos, requests for SPC assistance for the production of videos increased in 2020: introductory videos that are part of training courses in development, as well as awareness videos targeting communities and adapted to the context of the various Pacific Island countries and territories.

Travel restrictions have limited the options for video shooting locations and local actors. The mix of animations and staged sequences with SPC staff from various countries allows for the creation of videos that can be later translated and contextualised for specific countries and situations.

Training videos can be used as learning tools before online training workshops or before a specific workshop session.

Videos are published on YouTube for general audience with access to the internet, and are provided to media on request for local broadcast.

Web databases, tablet applications and remote maintenance

Internet in the Pacific Islands region improves thanks to the deployment of new submarine cables, an activity that continues despite the COVID-19 situation. Many countries are already connected to a submarine cable and new cables are in deployment, such as the Southern Cross NEXT Cable that will connect Fiji, Samoa, Tokelau and Kiribati (Kiritimati) to Australia, New Zealand and United States (completion expected in 2022).

The transition from desktop client-server applications to web applications and mobile apps for offline data entry was initiated several years ago with the improvement of landline and mobile internet (ADSL, 3G, 4G) and the re-development of the remaining legacy regional databases as web modules is currently undertaken.

Practical training sessions on web databases and mobile apps have been successfully conducted during virtual training workshops. The only caveat is to arrange the screen so that both the presenter's video stream and a web browser (or app) can be opened and visible at the same time, which can be challenging on a small screen.

Remaining in-country servers are remotely maintained through the internet: a server has even been fully reinstalled from scratch with the assistance of local IT staff. The challenge at the moment is to send spare parts or IT equipment (such as tablets) to Pacific Island countries as the shipment of goods is disrupted by the limited number of flights.

Case study 3:

Ocean Wardens: A snapshot of an inspection with the monitoring, control and surveillance team

The video can be viewed at: https://youtu.be/fAJbfz5g-RQ

It summarises one component of the monitoring, control and surveillance training: the various steps of a proper inspection.



The video gives a few tips such as: The best way to approach a fisher for an inspection and ensure his collaboration.

After COVID-19

While some activities such as field surveys, on-the-job training and community-related work should resume once travel restrictions are lifted, it is likely that some of the changes in practices imposed by the COVID-19 pandemic will continue, such as regular use of video conferencing, online training and web tools. As the internet improves, online collaborative platforms – as well as real time streaming and augmented reality – will likely be used as part of training workshops and meeting tools, and the physical presence of an instructor or expert will be less necessary, especially if an in-country person can promote and facilitate the use of the new technologies and relay feedback on technological glitches that might happen at the beginning.

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