

### Mobile phone data collection app for artisanal fisheries makes its debut in Funafuti, Tuvalu

*The Pacific Community (SPC) has just released an innovative new mobile and tablet application called ‘Tails’ that revolutionises electronic collection of artisanal tuna catch data. Tails allows coastal fisheries staff to easily collect tuna and bycatch information from small-scale fishers in remote locations and send it instantly back to the main office for analysis, even when Internet connectivity is limited. This new technology eliminates costly and time consuming delays in sending paper-based data from outer islands to the central fisheries office, and enables fisheries officers to monitor and manage artisanal tuna catches with today’s data, not last year’s data.*

Tuna are an important protein source for coastal communities and a significant traditional food source in many Pacific Island communities. The consumption of tuna in coastal communities also helps to relieve pressure on commonly targeted reef fish species, especially those in ecosystems under threat from external factors such as overpopulation, climate change or natural disasters. Many Pacific nations are investigating increased local tuna consumption as part of a strategy of food security and reef fisheries conservation and management, and this reliance on artisanal tuna catches needs to be monitored.

Pacific communities are often dispersed widely over large ocean areas, which typically makes data collection a very slow and expensive process. These data are, however, valuable for monitoring changes to the artisanal tuna catch rates, evaluating the effectiveness of nearshore fish aggregation devices and other food security projects, and ensuring the conservation of valuable coastal marine resources. A better solution was needed to streamline data collection, reduce costs and allow coastal fisheries staff to spend more time collecting and analysing data, and less time dealing with the logistics of paper-based information.

Tails provides a rapid method of sending small-boat catch data from remote locations to central fisheries offices. This ensures that data collection and analysis can occur quickly enough to support fisheries management initiatives and decision-making in Pacific Island countries and territories. The app was developed by Bruno Deprez, Steven Bagshaw and Andrew Hunt from the Data Management Section of SPC’s Fisheries, Aquaculture and Marine Ecosystems Division, and it relies on Tufman 2, SPC’s standard fisheries data management platform, which is widely used in the region.

Artisanal data collection often occurs in areas with limited Internet connectivity and the Tails app was designed and built to address this challenge. By allowing data collection to be performed completely offline, Tails is then able to send weeks or even a month of collected data in one transfer when even a modest Internet connection is available. Tails also requires very little bandwidth to operate,



*First field trial of the Tails app, February 2016, Nauru (image: Andrew Hunt).*

and can send off around 500 fishing trips’ worth of data to the national office with only one megabyte of data.

Field trials of Tails were first conducted in Nauru in February 2016, and the first full deployment was carried out in Funafuti, Tuvalu the following month. Early feedback has been very positive and development and improvement of the application continues.

#### For more information:

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