Introducing an online sea cucumber fishery management system in French Polynesia

Sea cucumbers are a highly sought-after commodity on the Asian market and their value makes them an attractive resource in small Pacific Island communities where income-earning possibilities are limited. However, the fragile nature of this resource combined with intensive, often uncontrolled harvesting has led to increasing scarcity in stocks and fishing bans that last several years.

In order to better manage sea cucumber resources, French Polynesia’s Department of Marine and Mining Resources (DRMM) has implemented harvest quotas by species and fishing zone (lagoon or part of the lagoon), local monitoring by management committees, and a traceability system that follows the resource from harvest (fishing) to export.

During the first quarter of 2014, SPC’s Coastal Fisheries Programme helped DRMM create an online database to record data gathered on logsheets, interisland shipping forms and export requests. This system makes it possible to monitor, on a daily basis, the percentage of the quota that has already been used and to limit fraud by comparing and validating data. Setting up a web-based solution allows exporters to submit their requests online and monitor, in real time, the situation with regards to the remaining fishing quotas by species in the various islands where fishing is allowed.

Problems in monitoring and controlling the harvest of this resource arise from the fact that data are not submitted at the same time or in chronological order (generally logsheets are only received well after sea cucumbers are shipped). In addition, once sea cucumbers have been processed (dried), they can be stored and then shipped at a later date, even during a limited time after the end of the fishery opening.

So the part of the quota that has already been used is estimated from both fisheries data and information provided on interisland shipping forms, which must be submitted to DRMM along with export requests, at the very least. This procedure provides data on the resource’s harvest status for each export, and makes it possible to decide whether to ban fishing for a certain species or in a certain fishing zone, when needed.

The system is currently being tested during an open harvest period for five sea cucumber species in 10 atolls in the Tuamotu Islands, which have been divided into five sea cucumber management committees. If the system proves to be successful at the end of this first fishery opening, the plan is for SPC to extend the system to other interested countries to allow them to better manage their exported marine resources and improve their traceability.

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One page of the sea cucumber fishery database web-based interface (name and figures are not real).