An effective tool for shared management of marine resources: The Coastal Fisheries Observatory

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Coastal fisheries observatories (CFOs) were developed and implemented in New Caledonia and Wallis and Futuna to provide managers information on the status of the resource stocks. The observatories' primary missions are to collect, manage and analyse coastal fisheries data in order to communicate them to everyone involved in this sector.

Thanks to the relationships of trust and cooperation established with fishers, these tools have proven to be relevant and effective: the status of the stocks of commonly consumed or high-value commercial species is now known, just as are certain key biological parameters for managing the resource.

After describing the context in which the CFOs were developed, this paper will address the following questions: What is a Coastal Fisheries Observatory? Who does it serve and what is its purpose? How does it operate? What resources does it need? What data does it collect and what relevant information can be drawn from them? What is the future for a CFO?

History and context

Fisheries play a critical role in the lives of Pacific Islanders, who depend, in large part, on coastal marine resources for their food security. Fishing practices there are very diverse and subsistence fishing represents 67% of the total volume of seafood taken from lagoon areas in 2014 (Gillett 2016). Coastal fisheries must be managed sustainably to ensure that island ways of life and economies can be sustained.

Sustainable management of these resources requires detailed knowledge of all fishing activities (including gear, efforts and areas) and catches (species targeted, volume by species and size of individuals caught). While information may exist regarding some Pacific Islands, only partial knowledge is available for the overall activity due to its diversity, the irregular provision of data, and the unreliability of data on fishing effort and catches. To improve the collection system, a structure that centralises and analyses data on coastal fisheries would provide regular, objective and reliable information to better understand the sector and its development.

Under the auspices of the PROTEGE project, financed by the 11th European Development Fund and implemented by SPC, both New Caledonia and Wallis and Futuna - two Pacific territories with very different environmental, socioeconomic and cultural contexts – sought to establish coastal fisheries observatories to manage their resources (Figure 1). The overall objective of PROTEGE is to build sustainable and climate-resilient economies in the Overseas Countries and Territories to address climate change by emphasising biodiversity and renewable natural resources.

In New Caledonia, where lagoons and reefs cover an area totalling 23,400 km², all three provinces and the New Caledonia Government have jurisdiction over coastal marine resource management. These four authorities have expressed the desire to develop a tool to collect, centralise and standardise all fisheries data to achieve overall management of the resources, harmonised across the territory. Their shared need to acquire additional knowledge about marine resources contributed to this shared desire to create a single platform.

In Wallis and Futuna, a much smaller territory, where lagoons and reefs cover 932 km^2 ,⁶ coastal fisheries operate under the Fisheries Service, within the territory's Agriculture, Forestry and Fisheries Department (Jaugeon and Juncker 2021). The lack of information on catch trends and the state of the resource prompted the desire to create a structure that could meet the expectations of fisheries stakeholders – fishers, managers, elected officials and traditional leaders – in terms of marine resources management.

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⁶ Reef and lagoon area, excluding shoals.



	New Caledonia	Wallis and Futuna
Population	270,000 inhabitants	13,500 inhabitants
Lagoon and reef area	23,400 km²	932 km²
Coastal fisheries annual catch	8700 tonnes	around 200 tonnes
Percentage of commercial catch	15%	16%
Number of species caught		227

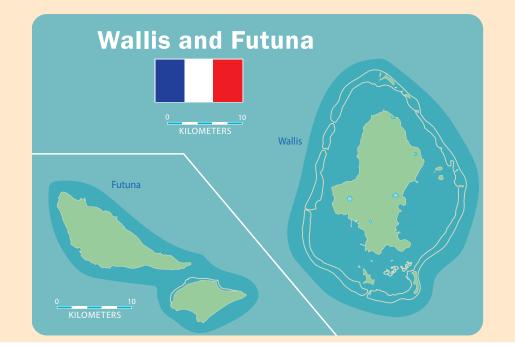


Figure 1. New Caledonia and Wallis and Futuna island groups, showing coastal fishery areas (dark blue).

So, because the institutions responsible for marine resources management in New Caledonia and Wallis and Futuna lacked all the data needed to prevent risks of overfishing of various coastal marine species, they wanted to set up a CFO.

Thanks to the earlier feasibility study on implementation of the New Caledonia CFO, conducted in the territory's South Province (Guillemot and Leopold 2017), as well as the organisational efforts of ADECAL-Technopole,⁷ concerned stakeholders' specific questions and expectations were identified. In Wallis and Futuna, the CFO implementation feasibility study incorporated the needs of all the fishery actors, as well as the population's perceptions in terms of the acceptability of an observatory (Preuss and Sabinot, 2021). Identification and consideration of all the needs proved to be critical for ensuring that stakeholders were properly represented.

In very different contexts but with a common interest: "to improve knowledge for more effective management", the CFOs in New Caledonia and Wallis and Futuna were established in February 2020 and September 2021, respectively These CFOs were set up to validate their operational feasibility, based on the PROTEGE 2020-2030 action plan. This phase constituted a real opportunity to shape and design each CFO to ensure their long-term existence.

An observatory for whom and for what purpose?

Definition and genesis of an observatory

An observatory is a mechanism by which to observe, analyse and communicate, launched by one or more organisations to monitor developments in an area over time and space (Lemoisson et al. 2008). In general, it seeks to address sustainable resource management and biodiversity issues and involves multiple stakeholders. For example, in the context of developing a major mining project in southern New Caledonia, an area of remarkable natural wealth, the community's questions and concerns and the need for institutional stakeholders to obtain information on the conservation measures to be taken strongly shaped the emergence of the New Caledonia Environmental Observatory (OEIL) (Juncker 2015).

One feature common to all of these observatories is the existence of an information system. This system involves IT infrastructures, through which the data collected are stored, analysed, and then reported on in summary form as tables, maps or indicators. The information produced is based on science and is objective, neutral and impartial. Given the specific characteristics of coastal fisheries in the Pacific – diverse practices, diverse species, a very significant and little-known subsidence sector – a CFO offers the advantage of banking a host of very varied data. The data collected or produced include information on fisheries, biological and socio-economic conditions drawn from a geographic area reaching from the coast to the outer reef slopes.

Lastly, a CFO is defined as a tool for collective action that networks a range of stakeholders (fishers, public authorities, elected officials, traditional leaders, research organizations and NGOs) to set up exchanges, participate in discussions, conduct studies on the coastal resources' status, acquire biological knowledge, and, ultimately, contribute to decisions regarding sustainable fisheries management. Facilitation of a CFO is critical to enabling collaborative work among partners, as well as the sharing and dissemination of information.

CFO's objectives and mission

A CFO has three key objectives:

- Facilitate understanding of the coastal fisheries sector by producing fishery statistics and indicators on the status of resources and fisheries;
- Inform decision-making and issue alerts based on the analysis and monitoring of the indicators characterizing the fisheries and resources; and,
- Inform and support fishers and managers through knowledge-sharing.

To achieve these objectives, a CFO has the following key missions (Figure 2):

- Acquire knowledge about coastal fisheries and the status of the resource;
- **Produce, collect, centralise, organise and standardise** biological, fisheries and socio-economic data;
- Analyse and interpret those data, produce indicators and identify alert thresholds;
- Promote and communicate the information produced on various media and to a wide audience; and,
- Facilitate a network of stakeholders involved in coastal fisheries through this single authoritative platform, which also provides a forum for exchange and consultation on fisheries issues.

⁷ Semi-public, non-profit organisation (under the Association Law of 1901), created to promote innovative projects, particularly with regard to the development of marine and land biological resources in New Caledonia. The General Assembly brings together representatives of public authorities and organisations representing the private sector and the research communities. Its members by right, which primarily finance the CFO, are the French Government, New Caledonia, and the Northern, Southern and Loyalty Islands provinces.

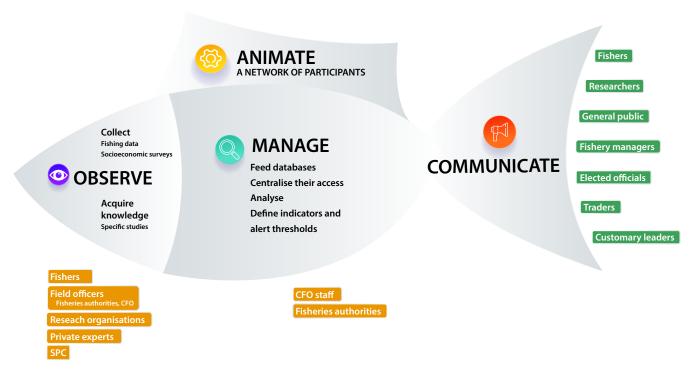


Figure 2. The Coastal Fisheries Observatory's missions, stakeholders and targets.

Thanks to the New Caledonia and Wallis and Futuna CFOs' experience, the main factors essential to the proper operation and success of an observatory can be identified:

- Clear, consensus-based identification of the objectives and the issues that the tool should address;
- **Definition of a technical and scientific framework** for collecting and processing the data;
- Active, ongoing facilitation;
- Development of a relationship of trust among the stakeholders;⁸
- Regular communication targeted to different audiences; and,
- Ensuring the continued use of the tool and regular updating of the data.⁹

All stakeholders recognise that an observatory's **mediation** function is central and essential to its success. An observatory can play a meaningful role only if it serves as an intermediary, providing a forum for stakeholders to engage with one another, discuss, and define an issue or, even, a controversial topic (Piveteau, 2011).

Who are the CFO's target audiences?

The CFO is, above all, a tool to serve public authorities and fishers. Its role also includes informing the community about fisheries and the status of the resource.

Information feedback for fishers is essential to maintain, long-term relationships of trust among the CFO, the public authorities in charge of the fisheries, and fishers, the main suppliers of data. Because coastal fishers are composed of multiple categories (subsistence, recreational and commercial fishers, professional associations and chambers of commerce), the levels of information communicated are adapted to the audience.

Sharing information with the community at large helps increase environmental awareness and the marine resources they depend on.

Identification of the target audiences guides the choice of communication materials (Table 1 and Figures 3 and 4). They fall into two categories:

- Publishing and digital communications: annual reports, statistical reviews, PowerPoint presentations, SPC fisheries newsletters, leaflets, videos/films, radio, website, Facebook page; and,
- **Events:** topical festivals, awareness-raising campaigns, meetings with associations and villagers.

⁸ Provide reassurance specifically that the CFO is not a monitoring tool used to impose sanctions.

 9 $\,$ Resource monitoring is only meaningful over the long term.

Table 1. Range of communication materials and their audiences.

Communication materials	Audience
Annual reports and statistical reviews	 Internal Technical committees and working groups SPC and other research entities Chambers of commerce and professional associations Commercial fishers Elected officials and decision-makers
Verbal feedback and individual annual files	Commercial fishers
PowerPoint presentations	 Elected officials and decision-makers Commercial fishers Chambers of commerce and professional associations
SPC fisheries newsletters	SPC member countries and territories
Leaflets, video/film, radio, website, Facebook page	 Elected officials and decision-makers Commercial and non-commercial fishers Traditional leaders Technical services Businesspeople Public at large
Events (for example, Fishing symposia in New Caledonia and Fisheries Fridays in Wallis and Futuna	 Commercial and non-commercial fishers Traditional leaders Managers and technical services



Figure 3. Sustainable fishing day in Wallis and Futuna.

How does a CFO operate?

Governance

The CFO is the product of a shared commitment among several partners who may represent public authorities, the private sector or the research community. All of the stakeholders involved in fisheries agree to the objectives set by the observatory, following completion of the feasibility study. Thus, governance of a CFO is generally assigned to a group of stakeholders who come together as a steering committee, whose role is to define broad guidelines for the Observatory's work.

In New Caledonia, a steering committee was created, composed of public authorities, professional associations, the Chamber of Agriculture and Fisheries, and ADECAL Technopole.

It meets two times/year to define the strategic plan, approve the actions and studies to be conducted, and plan the budget.

In Wallis and Futuna, a fisheries consultative committee composed of all relevant fisheries stakeholders meets regularly to present the Observatory's data and results.¹⁰

Organisation and human resources

An observatory may adopt one of these three organizational forms as its legal structure (ADEME 2011):

- Tool managed and led by an existing entity;
- Network of several founders, coordinated by an existing entity; or,
- Its own legal structure.

In both New Caledonia and Wallis and Futuna, an existing structure sponsors and houses the CFO. In Wallis and Futuna, that structure is the Fisheries Service of the Agriculture, Forestry and Fisheries Department, which manages the observatory and reports to the Territorial Assembly. In New Caledonia, AD-ECAL Technopole was the consensus choice, as it already deals with issues of the sustainable management of marine resources at the territorial level.

The human resources needed for the proper functioning of a CFO vary based on the objectives and the human resources available within the existing structure.

The professions required for the proper functioning of an observatory involve the following responsibilities and activities:







Figure 4. Examples of communication materials (cover of the New Caledonia CFO's annual report and internet site, cover of the Wallis and Futuna CFO's annual report and Facebook page).

¹⁰ The committee includes the Customary Minister of the Environment, the Customary Minister for the Primary Sector, the Chair of the Agriculture and Fisheries Committee, the head of the Economic Affairs and Development Department, the head of the statistics office, the DSA director, the Territorial PROTEGE Coordinator, the PROTEGE fishing and aquaculture facilitator within the DSA, the Wallis and Futuna CFO agent within the DSA, several village chiefs, members of fishers' associations and federations, commercial fishers, young fishers, recreational fishers and store managers.

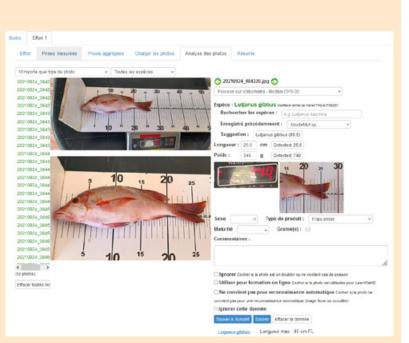


Figure 5. Measuring board and scale analysis module: the device automatically recognises the species, length and weight of each individual.

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Figure 6. Analysis module of landing mat photos: the device recognises the fish species laid out on the tarp designed for that purpose. Each species must then be selected and measured using the measurement tool.

- Coordination and management, which are essential to the group dynamics of the stakeholder network and to ensure that relationships of trust are maintained between fishers and the CFO;
- Data collection by field agents: their proximity to fishers helps to maintain a relationship of trust and improve the quality of data collected. The number of field agents varies based on the geographic scope to consider (currently, three in New Caledonia (one/province) and two in Wallis and Futuna (one/island); and,

Communication, which is the culmination of the observatory's work. This may be carried out by one or two in-house agents or be outsourced.¹¹

In addition to the agents dedicated to these CFOs, other human resources provided by the host organizations and their partners can contribute significantly to accomplishing the observatories' mission, including by providing data, participating in data collection and analysis, and relaying the CFOs' communications. This cooperation – between a dedicated coordination unit and a network of involved stakeholders – is what makes the CFO tool effective.

Technical and financial resources

Developing a CFO requires anticipating a budget for a feasibility study, which is essential to determine the observatory's scale and design, based on its objectives.

An initial investment budget provides funding to hire the CFO team and acquire the necessary equipment, IT infrastructure and digital applications.¹²

A basic operating budget allows the CFO to launch operations. In addition to funding for staff, the budget should include funds to conduct routine biological, fisheries and socio-economic monitoring and analyses, as well as for monitoring and analyses dedicated to CFO communications, facilitation and management (administrative, accounting, logistical and IT). Human resources are the largest budget category, accounting for more than half of the operating budget.

An additional budget should be anticipated to finance specific activities (for example, to address a specific resource or for a given activity) and to hire additional staff as needed.

These two CFOs were financed with European Union funds through the PROTEGE programme for 2019-2023. They also receive ongoing scientific and technical support from SPC's Coastal Fisheries Programme.

¹¹ For both CFOs, PROTEGE provided funding for the communication strategy, which each observatory then took ownership of and adapted to its own context.

¹² The investment level varies by the country's need to develop its own IT platform, which is more expensive than using the existing applications developed by SPC.

Regarding digital applications, Wallis and Futuna received support from SPC's FAME Division to develop data collection and entry protocols. The data collected are entered using the IKASAVEA application and hosted on the SPC's coastal fisheries portal. This portal features several modules, including LANDING SURVEYS, used for landing surveys; FISHER LOGBOOKS, for fishing logs; and DATA DE-POSITORY, for hosting databases created outside of the CFP portal. Devices such as "fish on measuring board" and "fish on landing mat" are used to facilitate data collection and minimise the time spent in the field (Figures 5 and 6).

New Caledonia also uses entry and analysis modules developed by SPC. However, given the need to compile data from different institutional bases, it purchased its own IT and statistical tool: the Meta-Info Centre (MIC).¹³ This tool can link all of the existing databases if they are completed using compatible formats.

The interface allows for intuitive, dynamic interaction between data and graphics. It is thus possible, at any time, to extract raw data and summary graphics and complete some 40 indicators related to fisheries and the resources used (Figure 7). This tool also helps to improve the collection of source data, providing feedback on their use.

From data collection to indicator-based management

Source data and indicator examples

The data collected deal, first, with commercial fisheries. Those data are easier to access and are drawn from different sources: fishing logs, fishers' surveys, and biological sampling during landing, at markets or at other sales locations. Surveys of fishers' perceptions of the status of the resource and how it is changing help to enrich the quality of the database.

Data on non-commercial catch are often unavailable on a country/territory-wide level. They are estimated indirectly based on household consumption data collected during population surveys or censuses or from specific surveys of non-commercial fisheries. The 2019 household consumption survey conducted in Wallis and Futuna is an example (Bouard 2021).

A study of catch estimates from rural non-commercial fisheries has just been completed in New Caledonia. Based initially on three pilot sites, it was used to develop and implement a reproducible method that relies on distinguishing between two types of fisheries: daily and event based. It was also used to extrapolate catch at the municipal area level (Faure et al. 2022). The ultimate purpose of the CFOs is to integrate monitoring of subsistence and recreational coastal fishers and to step up monitoring efforts. The information gathered is grouped into four large categories of indicators, outlined in Table 2.

Certain indicators are calculated using measured parameters. For example, a species' size measurements are used to develop the size structure by species, providing information on the status of the fished population. The spawning potential of the proportion of juveniles in catches is another example of an indicator built based on data collected in the field, such as size at sexual maturity.

Conclusive and meaningful results

Over the last three years, the two CFOs have built their structure and implemented systems to collect, process and disseminate data specific to each, adapted to their socioeconomic and cultural contexts, and that evolve in line with their needs.

The New Caledonia CFO carried out 25 activities during its first three years. Some of its accomplishments involved analysing fisheries and biological data collected during landings or based on fishing logs, while others focused on improving the knowledge of certain species where stock status is still unknown. The mangrove crab (*Scylla serrata*), snappers (*Etelis* spp., *Pristipomoides* spp.) and the humphead parrotfish (*Bolbometopon muricatum*) have received special attention in New Caledonia.

In Wallis and Futuna, an equally large number of activities have focused primarily on the status of marine resources, based on landing measurements, and on improving fisheries data collection and processing.

The two examples below were chosen to illustrate some of the CFO activities.

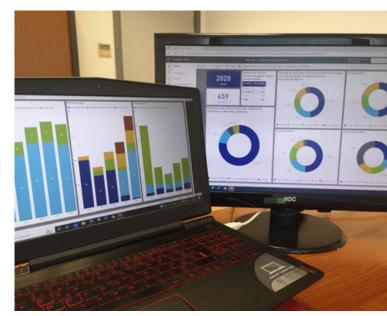


Figure 7. New Caledonia's Meta-Info Centre IT interface.

¹³ The technical solution chosen, which uses a very ergonomic interface, relies on Microsoft* tools (Cloud Azure and the Power BI decision-making tool).

Nature of the indicator	Key indicators
Fishery	 Fishing effort measured, at the very least, by number of fishing trips and days Catch by species or group of species, by fishing technique (and by fishing area explored during a trip) CPUE (catch per unit effort) Stock status indicators (by species)
Biological	 Length, weight, gonad maturity stage Size structure Proportion of juveniles in catches and spawning potential ratio (SPR)
Economic	 Catch value (turnover) Average sale price by species (first sale and market price) Fishing trip expenses (including fuel consumption) Amount of fuel subsidy/kg of catch Yield: quantity caught/litre of fuel
Socio-professional and administra- tive, by profession	 Number of seafarers and skippers, on foot or onboard, age and gender Number of fishing permits/licenses Number of special permits Number of boats and technical features (size, engine, age, materials) Fishing log reporting rate Fuel subsidy access rate

Table 2. Classification of information gathered in catch surveys and key indicators chosen.

1- Implementation of an analytic method based on measuring size at sexual maturity of fish sampled in 2022 in Wallis and Futuna. This is a relevant example of assessing stock status for different species caught.

Information on a species' size at sexual maturity makes it possible to distinguish a juvenile from an adult capable of reproducing. Because a species' size at maturity varies by geographic area, it is important to collect biological data at the local level, reflecting the actual status of the resource at a given location.

The assessments conducted by the CFO and the Wallis and Futuna Fisheries Service helped to determine the stock status of the 45 most-fished coastal fish species, using an indicator calculated based on data recorded during landing surveys. This indicator – the spawning potential ration or SPR¹⁴ – uses an assessment method that compares the size of fish caught to their size at maturity.

From January 2020 to December 2022, more than 20,000 individuals were weighed and measured. Of those, 3200 were analysed to assess the maturity of their gonads, which was used to calculate the percentage of catch of immature specimens for each species (Figs 8 and 9). Of the 45 species assessed, 23 can be considered as having been fished sustainably, with an SPR above 0.3. Eleven species had an SPR below the threshold at which individuals can renew their population, with an SPR below 0.2 (Jaugeon 2023). Figure 10 displays the results for 14 fish species (Wallis and Futuna CFO 2021b).

The results obtained were used to alert managers about the stocks of certain species and guide them toward measures to preserve the impacted resources, particularly regulatory measures. Improving the reproduction potential for these species would increase the number of individuals and, ultimately, improve fishers' yields. The CFO estimated the minimal catch sizes corresponding to the size at which the fish can be caught, having reached a size enabling them to reproduce at least once.

These results were presented at a September 2022 Fisheries Committee meeting. They were also used to catalyse a marine protected area project, at the fishers' own initiative, in Hihifo district. In addition to the benefits expected, the project aims to create public awareness of sustainable fishing.

2- The New Caledonia CFO coordinated a study assessing the stocks of commercial sea cucumber species in New Caledonia's waters.

New Caledonia is particularly focused on management of these species, especially because two of the high-valued species – the black teatfish (*Holothuria whitmaei*) and the white teatfish (*Holothuria fuscogilva*) - were listed in Annex II of the Convention on International Trade of Endangered Species (CITES) in 2020. Recent data show a decline in New Caledonian production since 2017, probably linked to unsustainable harvest levels (Gilbert et al. 2022).

This goal of this study, conducted between December 2020 and June 2022, was to assess the stocks of 18 commercial species in nine areas identified as priorities by each of New

¹⁴ The indicator is based on the Length-Based Spawning Potential Ratio (Hordyk et. al. 2015). The LBSPR assessment is a method used in fisheries that have little data to determine the size at maturity of the fish and their spawning potential by species.

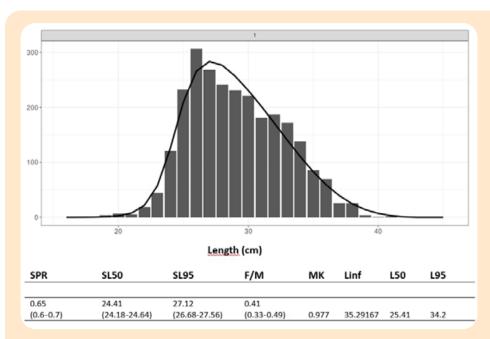


Figure 8. Length class frequency histograms for *Lutjanus gibbus* and SPR value (Wallis and Futuna).

Species	% immature individuals in catches
Caranx melampygus	18.65
Acanthurus xanthopterus	6.6
Chlororus microrhinos	8.52
utjanus gibbus	18.2
pinephelus polyphekadion	74.05
Moolgarda sp.	3.07
Hipposcarus longiceps	9.91
Scarus rubrioviolaceus	9.76
Epinephelus fuscoguttatus	18.09
Caranx pauensis	8.54
Etelis coruscans	3.54
Scarus ocellatus	12.9
Lutjanus monostigma	8.27

Figure 9. Percentage of immature individuals caught among 13 species fished (Wallis and Futuna).

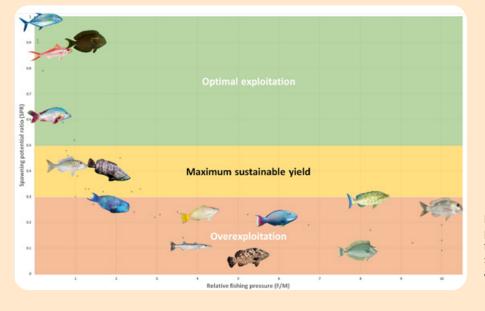


Figure 10. Reproductive potential based on fishing pressure for 14 species fished (Wallis and Futuna).



Figure 11. Teatfish (Thelenota ananas) measurement during an underwater sampling in Lifou (Loyalty Islands). @Matthieu Juncker

Caledonia's provinces. It was used to establish an optimised sampling method for teatfish stocks and to train all provincial and private partners, from theory (during an SPC training workshop) to operational implementation in the field. Underwater censuses of all teatfish species were conducted using the transect method. Densities by species were noted, taking account of habitat types encountered (Fig. 11). The biomass indicators were calculated based on the densities, average weight, and useful area of the habitats for each species. Approximately 94 hectares (ha) of habitat were sampled over more than 3800 transects, for a useful area mapped of 81,613 ha where the stocks were estimated.

Thirty-one teatfish species were recorded across all nine areas. The total cumulative biomass of 10,136 tonnes, compared to a reference biomass¹⁵ of 2913 tonnes (total wet weight), was estimated with average and low commercial value species clearly dominating (Figure 12).

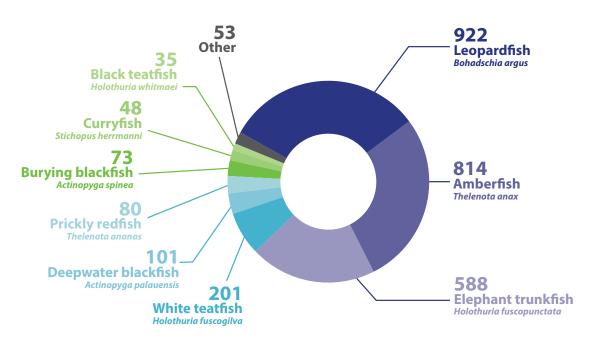


Figure 12. Cumulative distribution of baseline biomass by species for all nine studies in tonnes of total wet weight.

15 The reference biomass corresponds to the confidence interval lower than the allowable biomass. This involves the stock on whose basis a quota may be defined by area.

The two CITES-listed species were observed at most of the areas where their favourable habitats were sampled. With the exception of two species, the size of the individuals fished was generally larger than the size at sexual maturity, which means that the spawning stock are being exploited.

Managers now have stock estimation logs with detailed information on habitat, species and area. This inventory provides baselines that will be useful if quotas are established for areas identified by the provinces.

Outlook and conclusion

Observation is only meaningful over the long term. Today, after three years of set-up and operation financed by European funds, the CFOs of New Caledonia and Wallis and Futuna are working to ensure their continuity. A strong political commitment could secure the resources to achieve that goal. Another option would be to diversify their funding sources, either through regional or international tenders or partnerships with private operators, such as representatives of the fisheries sectors.

The CFOs still seek to develop and optimise their collection, analysis and communication functions. Today, for example, the data collected provide rough geographic information. They could be refined with a finer-grained analysis of information on catch locations; that would make it possible to assess the state of the resource and appropriate management. The New Caledonia CFO also has plans to link the sea cucumber resource databases developed (including processing ratios, sizes at sexual maturity, exporters' purchase register, traceability from fisher to export, and stock assessment). This will make it possible for the management of this resource to be standardised from fisher to export across the entire territory.

In Wallis and Futuna, the CFO has focused on continuing to perform landing measurements and extending them to Futuna. Spatial resource management is not a current priority as the geographic accuracy obtained is adequate, for now, to understand the overall resource management issues. The Wallis and Futuna CFO continues to focus primarily on minimal catch sizes and fishing practices to be regulated.

Creating the marine protected area (MPA) in the northwest area of the Wallis lagoon is one of the short-term projects supported. To obtain maximum buy-in, the Observatory wants to strengthen and expand its communication efforts, particularly in villages and with youth and student associations, and to set up a private fundraising effort to support the MPA.

In conclusion, these CFOs appear to have become operational structures in less than three years. The support they provide for the sustainable management of coastal fisheries, made possible by relationships of trust and strengthened cooperation among the stakeholders, could inspire other countries and territories in the region. In the final quarter of 2023, a PROTEGE "lessons learned" workshop on coastal fisheries will be organised with the OCTs and regional experts. This event will provide an opportunity to promote these observatories, which have demonstrated their value, and to share experiences and knowhow with the goal of a stronger partnership among the territories.

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