

National investments allocated to coastal fisheries and community-based fisheries management in the Pacific: A review of past monitoring efforts and recommendations

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Background

A New Song for Coastal Fisheries⁴ and the Future of Fisheries Roadmap⁵ both outline pathways agreed on by government officials and other stakeholders from Pacific Island countries and territories (PICTs) to achieve long-term economic, social and ecological benefits for coastal communities from sustainably managed coastal fisheries. A key emphasis of these policies is to scale up community-based fisheries management (CBFM).

National fisheries agencies' staff and budget are critical inputs towards sustainable coastal fisheries management and scaling up CBFM. Monitoring this investment responds to one of the New Song's key outcome areas: "Re-focused fisheries agencies that are transparent, accountable and adequately resourced, supporting coastal fisheries management and sustainable development underpinned by CEAFM".⁶ Tracking these national investments can also be useful to countries for reporting, accountability, advocacy and resource mobilisation purposes.

Estimating and monitoring fisheries agencies' staff and budget allocated to coastal fisheries is challenging, even more so when focusing on management and CBFM. To date, three main efforts have been undertaken by the Pacific Community (SPC) to do so:

- the SPC 2015 report⁷ "Preliminary review of public expenditure of the Fisheries Agencies of Pacific Island Countries and Territories: Policy, operational budget and staffing" (Govan 2015);
- the ongoing data collection by SPC as part of the Coastal Fisheries Report Card since 2017;⁸ and
- a dedicated questionnaire sent out to countries in early 2021 prior to the subregional and regional CBFM scaling-up workshops⁹ organised by SPC and partners between January and February 2021.

An internal review¹⁰ of these monitoring efforts has led to the following identified challenges, findings and recommendations.

Challenges

Hurdles in obtaining data

Given the limited information that is readily available online, either in fisheries agencies annual reports or in national government budget reports (when these are available), past monitoring and reporting efforts have relied on extensive bilateral exchanges and/or questionnaires that were sent out to different national fisheries agencies' focal points.

Collecting staff and budget data through a dedicated questionnaire and/or bilateral exchanges is, however, challenging for several reasons:

1. Respondents can be reluctant to share or ask about budgetary information that are traditionally regarded as sensitive. Political or high-level support for the request is needed to address this challenge.
2. Targeted respondents must be able to collect and provide the right information. For instance, the 2021 questionnaire was sent to the CBFM workshop participants, and only a few were completed by senior staff or directors with a better knowledge of resource allocation.
3. The topic and the information to collect is much more complicated than it first appears. Whomever is leading the data collection effort must be able to clearly define and identify, be it in a questionnaire or during exchanges, what is the "coastal fisheries staff" and the "coastal fisheries management budget" information to be collected. This is not straightforward because different categories of budgets are usually used in national reporting by fisheries agencies or Pacific Island countries and territories.¹¹ Agreeing on a definition of "coastal fisheries staff" at the outset is also necessary (e.g. Would a staff member spending around 20% of his/her time on coastal fisheries work be considered as coastal fisheries staff?).

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⁴ A new song for coastal fisheries – pathways to change: The Noumea strategy / compiled by the Secretariat of the Pacific Community http://www.spc.int/DigitalLibrary/Doc/FAME/Reports/Anon_2015_New_song_for_coastal_fisheries.pdf

⁵ FFA/SPC (2015). Future of Fisheries: A regional roadmap for sustainable Pacific fisheries. Noumea, New Caledonia, Pacific Islands Forum Fisheries Agency (FFA) and the Pacific Community (SPC). https://www.spc.int/DigitalLibrary/Doc/FAME/Brochures/FFA_SPC_2015_Roadmap.pdf

⁶ Community-based Ecosystem Approach to Fisheries Management.

⁷ <http://purl.org/spc/digilib/doc/43c9k>

⁸ <https://famerresults.org/cfreportcard/>

⁹ <https://fame1.spc.int/en/meetings/255>

¹⁰ The internal report can be made available upon request.

¹¹ For instance, national budgets are usually presented per main outputs or activities for each ministry and then broken down into several categories, such as personnel, operating expenses (or "operations"), capital costs. The main activities and outputs categories vary across countries, which makes regional reporting and comparisons challenging.

4. Even if well identified and defined, the information requested may not be readily available and can be challenging to collect by respondents (e.g. need to circulate the request, access unpublished budgetary data). Strengthened monitoring efforts from fisheries agencies, including disaggregated fisheries budget structure and reporting, is needed to address this challenge.

Limited comparability of data

Comparing results between the three main monitoring efforts undertaken by SPC is not straightforward, mainly because of important differences in data collection methodologies and data quality issues. For instance, the SPC 2015 report relied on extensive bilateral consultations, with significant data cross-checking efforts, including through a dedicated questionnaire, whereas the data collection for the 2021 CBFM only relied on a questionnaire with no subsequent data verification. The Coastal Fisheries Report Card (CFRC) data collection process does not involve bilateral consultations either, but the data collected through the dedicated questionnaire is cross-checked with publicly available sources, where possible. In addition, aquaculture is included in the staff and budget data collected through the CFRC, whereas this is not the case for the SPC 2015 report and 2021 questionnaire data. There is also no clear definition of coastal fisheries staff in the CFRC questionnaire, while the SPC 2015 report estimated the number of staff spending 25% or more of their work time on coastal fisheries. The 2021 CBFM questionnaire collected the number of staff employed in coastal fisheries, coastal fisheries management, and CBFM, counting those engaged in these areas for more than 25% of their time as well as those engaged for 100% of their time.

Main findings

A focus on operational budgets

The SPC 2015 report made the case that budget monitoring and reporting efforts, both at the country and regional level, should first distinguish operational¹² budgets from development and capital ones. This is because operational budget may better reflect the long-term commitment of governments to fisheries agencies, and is essential for allowing and sustaining activities associated with management and CBFM. These usually require little infrastructure and other capital investments, and are focused on fisheries agencies staff providing information; formulating, disseminating and implementing policy and rules; and conducting monitoring and enforcement operations (Govan 2013; Govan et al. 2013). Monitoring and reporting efforts should then allow for a distinction between resources invested in fisheries management versus fisheries development, because the latter do not contribute directly to management and may often result in increased pressure on resources. The CFRC data collection process does not currently allow a focus on operational and management budgets. The 2021 CBFM questionnaire included specific ques-

tions inquiring about operational budgets for management and CBFM, but data could not be obtained for 15 PICTs.

Monitoring changes in operational budget versus staff

The comparison between the 2015 report and responses to the 2021 questionnaire indicates that national resources allocated to coastal fisheries (staff and operational coastal fisheries budget) may have increased in five PICTs.

Two to four PICTs, however, reported in the 2021 questionnaire that resources have decreased (two PICTs with lower operational coastal fisheries budget, and four PICTs with a lower number of staff working on coastal fisheries). Direct comparisons on operational budgets and staff were not possible for 10 and 15 PICTs, respectively. The comparison exercise, including with CFRC 2020 data, therefore, shows that associated findings must be subject to caution, and do not allow the provision of reliable indications of possible changes in management and CBFM investments overall.

The overview and comparison of monitoring efforts also suggest that the number of staff seems to be a more rigorous and reliable indicator of national investments in management and CBFM than the various budget categories. This indicator is easier to collect, numbers are more likely to be known by interviewees, the terminology is less problematic, and the request is regarded as being less sensitive. To estimate the number of staff, it is recommended – based on the 2021 CBFM questionnaire experience – to focus solely on staff working more than 25% on coastal fisheries management or CBFM.

Other indicators

While the focus of this review is on national budget and staff as key indicators of resources allocated to coastal fisheries and CBFM, looking at additional indicators – such as the number of coastal fisheries extension officers and the number of CBFM authorised officers – could provide a refined assessment. The 2021 questionnaire was aimed at collecting some of the number of CBFM authorised officers and community champions, but only a few countries managed to provide estimates. The CFRC questionnaire is collecting information on the number of extension officers to then estimate the ratio of extension officers to fishing households, which is used as one of the key indicators under goal 1 – empowerment (this indicator was available for eight countries in 2020).

It is also important to put in perspective any changes in national resource allocation to changes in coastal fisheries management and CBFM outcomes. For instance, according to the regional scaling up CBFM workshops 2021 reports,¹³ the CBFM coverage has increased between 2015 and 2021 for at least eight countries where the number of coastal fisheries staff has increased as well (bearing in mind the limitations of the 2021 CBFM questionnaire data). This could show that additional resource allocation has been effective

¹² Also called “recurrent” budget.

¹³ <https://fame1.spc.int/en/meetings/255>

for CBFM. Looking at other indicators of success (e.g. adoption of coastal fisheries policies or strategies that demonstrably support CBFM,¹⁴ resource status and sustainability) is beyond the scope of this article but could be considered for future reporting or for a potential cost-effectiveness analysis, providing that the data gathered are robust enough to do so. Govan (2013) provides some examples of possible improvements in cost-effectiveness.

Underinvestment in coastal fisheries management and budget adequacy

Overall, the three main past monitoring efforts show that staff and budgets allocated to coastal fisheries remain low in comparison to the total staff and fisheries budget for most countries. According to data from the SPC 2015 report and the 2021 questionnaire, this is even more the case for operational budgets. Given that coastal fisheries budgets often include a large proportion of budget dedicated to fisheries development activities that may be expected to increase pressure on the resource (see Govan 2013 and 2015), this means that most countries may be severely under-investing in resource management.

This is in line with a recurring issue raised by stakeholders involved in coastal fisheries management in the Pacific region: inadequate resources, or lack of funding. This was near unanimously highlighted as the major factor by government stakeholders in the 2021 regional CBFM workshops.¹⁵ A key result area of the New Song is also for fisheries agencies to be “adequately resourced”.

However, assessing what is meant by “adequate” is not straightforward, and the literature does not provide much guidance on this. Several indicators can be used to offer insights on budget adequacy and to make comparisons across countries. Some exploratory work conducted by Govan (2013 and 2015) intended to identify such indicators that could be tracked over time with more relevance than the percentage of overall fisheries budget allocated to coastal fisheries:

- total population to serve or manage,¹⁶
- area to cover or manage,¹⁷
- economic value of fisheries production,¹⁸ and a ratio between the operational coastal fisheries budget and the coastal fisheries production value, and
- pressure or reliance on resource.¹⁹

Further examining the level of operational coastal fisheries budgets from the 2015 report and the 2021 CBFM questionnaire in view of these indicators also point to a possible severe under-investment. However, the relevance of these indicators to assess budget adequacy and allow comparisons between countries would need to be further assessed and discussed individually, based on their robustness and data availability. For instance, changes in the ratio between operational coastal fisheries budgets and fisheries production value may not always reflect appropriate trends in budget adequacy. Such changes could be due to a variation in catch volume or prices that are independent of management efforts. Under certain circumstances, well-managed high value fisheries such as sea cucumber²⁰ could also generate a strong increase in production value.

Recommendations

Comparing the methods and results from three main past budget and staff regional assessments pointed out needs to further strengthen the ongoing monitoring efforts at various levels, with the following recommendations.

General recommendations

- Monitoring and reporting, including through the CFRC, should focus on coastal fisheries management and allow the exclusion of resources allocated to fisheries development activities. This is crucial because most countries may still be severely under-investing in coastal fisheries management incorporating CBFM approaches, and solely reporting on overall coastal fisheries budget can be misleading.
- Budget monitoring and reporting should focus on operational or recurrent budgets as opposed to development or capital budgets, mainly because management and CBFM mostly require steady and secure recurring costs, and development and capital budgets are broadly adding pressure to resources, or at least not contributing to management.
- Budget monitoring should focus on actual expenditures rather than budget forecasts or estimates which may not represent what ends up disbursed to fisheries agencies.
- The number of staff working on coastal fisheries management might be a more reliable indicator as it is easier to measure or survey, is less sensitive, and is directly linked to actual management activities.

¹⁴ See objective 3 and associated guidance of the Pacific Framework for Action on Scaling up Community-based Fisheries Management: 2021–2025. <https://purl.org/spc/digilib/doc/yr5yv>

¹⁵ See article by Lalavanua and Smith on page 18 of this issue (<https://purl.org/spc/digilib/doc/2z6y6>)

¹⁶ Latest data available here: <https://sdd.spc.int/topic/population>

¹⁷ Inshore fishing area from Sea Around Us 2015, see <http://www.seaaroundus.org/data/#/fishing-entity>

¹⁸ The data used in the SPC 2015 report are from Gillett, 2009. The SPC internal review used updated figures from Gillett 2016.

¹⁹ Countries are classified in three food security groups based on assessment of their capacity to provide the 35 kg of fish per person per year recommended for good nutrition of Pacific Island people under projected population growth (dominant influence) and climate change (longer-term influence). See for instance Bell et al. (2018).

²⁰ See for instance: Lee S., Govan H., Wolff M. and Purcell S. 2018. Economic and other benefits of enforcing size limits in Melanesian sea cucumber fisheries. SPC Fisheries Newsletter 155:29–36. <https://purl.org/spc/digilib/doc/ocggg>

Recommendations for fisheries agencies

- National fisheries agencies need to strengthen their monitoring of staff and budget allocated to coastal fisheries and, in particular, to management activities and CBFM in order to track progress against regional and subregional commitments. Disaggregated budgets with activities, outputs or subprograms focusing on coastal fisheries management is a key first step.
- National fisheries agencies need to ensure the last annual reports and budgets are made readily available on their websites. To the extent possible, the reports should include a monitoring component on expenditures for coastal fisheries management and CBFM.

Recommendations for SPC's Fisheries, Aquaculture and Marine Ecosystems Division

- The FAME Monitoring, Evaluation and Learning team should consider requesting the Coastal Fisheries and Aquaculture Programme (CFAP) staff visiting PICTs or otherwise in a position to obtain relevant staff and budget data to do so regularly. This would facilitate data collection and cross-checking.
- FAME could submit a proposal to the next Heads of Fisheries meeting to gain their approval and procedures for obtaining the relevant staff and budget data, so that fisheries agencies staff can be reassured that the request is approved at a high level.
- The FAME Monitoring, Evaluation and Learning team, in collaboration with relevant CFAP staff, need to update the CFRC questionnaire as it represents a great opportunity to further strengthen the national resources allocation monitoring efforts on a yearly basis. In addition to distinguishing between aquaculture and coastal fisheries, dedicated questions on resources specifically allocated to management and CBFM should be included.
- If deemed appropriate, CFAP needs to establish a methodology for a coastal fisheries management and CBFM national expenditures regional assessment that could be conducted every five years. As part of this methodology, precise steps to calculate operational coastal fisheries budgets for each PICT should be defined and the CBFM 2021 questionnaire should be updated to further clarify some questions and the terminology. Both the bilateral exchanges and the questionnaire should target national coastal fisheries directors or equivalent.

Conclusion

Implementing such recommendations would allow a better assessment of the extent to which current investments are commensurate with coastal fisheries management challenges in the region. It is also key to better assess progress made by PICTs in providing adequate resources to sustainable fisheries management and CBFM as per the New Song

for Coastal Fisheries approved and endorsed in 2015 by the Heads of Fisheries and fisheries ministers respectively, and the Future of Fisheries Roadmap endorsed by Forum leaders in 2015.

Improving assessment and monitoring of staffing and financing of fisheries management will be vital in addressing the increasing threats faced by coastal fisheries and the continuous decline of the resources. The options to leverage additional recurrent resources for management should be urgently investigated by regional organisations and PICTs. Such options include: advocating for larger national budget allocation for coastal fisheries (e.g. given the nutritional and socio-economic importance of coastal fisheries to Pacific island people); prioritising staff time and budgets on coastal fisheries management and CBFM as opposed to some fisheries development activities that lead to increased pressure on coastal resources; generating additional revenues from coastal fisheries licensing regimes or other economic instruments (e.g. user fees); and reforming coastal fisheries subsidies (in particular ending the harmful ones). Donors should also consider the importance of ensuring government coastal fisheries management budgets are adequate compared to short-term projects, and support the development and implementation of possible solutions to do so (e.g. trust or sovereign funds).

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