

Paper reference	Working paper 8
Title:	The value of understanding economics and socioeconomics in coastal fisheries and aquaculture
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Summary/short description/key points:

The sustainability of coastal fisheries and aquaculture is not only dependent on the biological status of the resource but is also deeply related to the needs and capacity of local communities and to the viability of commercial ventures. Fisheries and aquaculture management requires finding a balance between ecological preservation, food security and well-being of the people who rely upon these resources. From optimising economic efficiency in harvesting practices to safeguarding the livelihoods of fishing communities, economics and socioeconomics provide key analytical tools and frameworks necessary for informed and evidence-based decision-making.

Different analyses and tools exist to assist fisheries projects or policy development, such as cost benefit analysis, value chain analysis or socioeconomic surveys (described below). The purpose of this paper is to show the value of understanding social aspects and economics in coastal fisheries and aquaculture management and is a basis for discussions between Members on how to increase the use of economics and socioeconomics to ensure sustainability, resilience, and equity in these sectors.

Recommendations:

Members are invited to:

- Note the importance of inclusion of economics and socioeconomics in coastal fisheries and aquaculture management.
- Identify the most suitable kind of data, methods and tools, which could be collected according to their priority needs, data gaps and context.
- Share their experience and support needs from SPC on economics and socioeconomics.

- d) Note and endorse the creation of the Socioeconomic Community of Practice in the Pacific Region.

The value of understanding economics and socioeconomics in coastal fisheries and aquaculture

A holistic approach for evidence-based fisheries and aquaculture management

1. Economics and socioeconomics assist in understanding the root causes of a problem and potential solutions to address it. It can provide decision makers with an opportunity to examine the impacts of different options before taking a decision and to propose the most appropriate and sustainable solution for the development of a project or for the management of a sector.
2. Different tools and methods can be used depending on the purpose of a study: designing, implementing or evaluating a policy or a project; understanding local contexts, issues, threats and strengths; identifying changes; recognising impacts of a management measure or an intervention; reporting key figures of the social and economic contribution of a sector for strategic decisions; monitoring a sector to ensure its sustainability; improving value chains; identifying the perception and acceptance levels from concerned stakeholders. The main types of analyses used in fisheries and aquaculture are detailed in this paper.

Economics analysis to improve development and sustainability of a sector

3. A cost-benefit analysis provides a quantification of all costs and benefits associated with projects or policies to establish their impact and to see whether or not they are worthwhile. This type of analysis is more than just a financial appraisal, as it includes non-monetary costs and benefits, such as social and environmental impacts.
4. A value chain analysis is a description and quantification of all activities that are required to bring a product to market. This methodology examines all the elements, actors, their complex interlinked behaviour, and their technical, economic, social and environmental performance in order to devise an upgrading strategy. This understanding can thus be used to identify development opportunities within a product supply chain.
5. Economic modelling can be used to inform a feasibility study. It allows identification of the conditions that maximise or increase revenue and profits from a sector or an industry, while safe-guarding long-term sustainability. It is called bio-economic modelling when biological and ecological components are included. In this case the modelling develops a detailed understanding of how fish stocks, fishing fleets, people and profits may react to changes in the fisheries management regime.
6. Markets analysis and demand and supply projections are used to assess current or predict future demand for a fish or commodity. It helps to determine the size of a project or an industry, assess the number of jobs it could support, and assess impact of the development of a new market. This analysis, combined with economic modelling or a value chain analysis can help to define branding or marketing strategies.
7. Statistical trend analysis and forecasting allows monitoring of a sector in order to provide information and key indicators to decision and policy makers, such as contribution to the Gross Domestic Product (GDP), wealth creation, prices, production, tax and other government revenues, formal and informal employment. These indicators can be used to identify support needs (e.g. implementation of a subsidies allocation plan) and to consider future development possibilities.

Socioeconomic analysis to assess the impact of specific interventions, and to support management, governance and policy/legal decisions

8. Social or socioeconomic assessments: These are usually conducted once, either at the beginning of an intervention (e.g. a project, a law, a management rule, an awareness/information campaign) to establish a baseline, to understand a particular issue, or to assess the impacts of an intervention. Approaches, methods and tools can be diverse, including external, interdisciplinary and participative approaches, quantitative and qualitative methods, or a combination of them.
9. Social or socio-economic monitoring: Monitoring is more focused on detecting changes in time and is particularly useful to support adaptive management systems. For this reason, monitoring is conducted on a regular basis, although the frequency will vary according to its purpose. For example, social changes such as perceptions, attitudes, social capital and cultural aspects tend to occur slowly and therefore conducting a monitoring programme every month is likely to be a waste of resources and time. But changes in livelihood and income can occur quickly after an intervention, but this change might not be long-lasting.

Economic and socioeconomic data collection avenues to improve fisheries and aquaculture management

10. Economic and socioeconomic analyses are based on qualitative and quantitative data collected through a variety of methods, such as surveys, focus group discussions, key informant interviews, and observations, to name a few. Qualitative and quantitative data are usually complementary but deciding which method(s) to use in each case and what sampling strategy to use depends on a diversity of factors, like national or organisational priorities, purpose of the study, available capacity, budget, time frames and logistics. Data collected regularly can help in fisheries/aquaculture management and improve the quality of the analysis when a specific study needs to be done. The frequency of data collection varies according to the nature of the data and to the purpose of its use (Information paper 11).
11. Participatory methods: Depending on the nature of the study, involving local actors in the collection of information can significantly improve the amount and frequency of data collected, which is particularly important for monitoring efforts and for certain data types like price fluctuation, seasonal offers and demand of marine resources and catch data. While it requires an investment to recruit and train data collectors, it significantly reduces the costs of travel, particularly where levels of isolation are high (e.g. remote islands, limited transport options). Approaches like action research are also particularly important for those cases where the data collection is part of a collaborative process like CBFM, as the involvement of local actors increases motivation, helps build important social networks and improves access to diverse sources of information; in turn, this can improve the long-term viability of a management and governance regime where the ownership of local actors is important.
12. The IKASAVEA application provides an efficient way of collecting basic socio-economic information in relation to coastal fisheries¹. SPC is currently working on the inclusion of a questionnaire to assess the vulnerability of fishing communities to climate change and other disasters. Depending on members'

¹ Magron F., Halford A., Shedrawi G., Vigga B.. 2022. Suite of tools for coastal fisheries and aquaculture: access, usage and support. Working paper 5. Fifth Regional Technical Meeting on Coastal Fisheries and Aquaculture. Noumea, New Caledonia: Pacific Community. 8 p. <https://purl.org/spc/digilib/doc/vqtj6>

needs and priorities, other modules could eventually be added, for example to collect economic data for economic modelling or value chain analysis. SPC has also provided support to create tailored tools to respond to specific purposes (e.g. a Survey Solutions questionnaire to survey the impact of the SMA programme in Tonga²)

13. SPC was asked to act as a co-coordinator of the global socioeconomic monitoring programme SocMon³ for the Pacific region. A socioeconomic community of practice was initiated in August 2023 to improve the socioeconomic capacity in the region, by connecting experts and users, and providing an exchange platform and access to key resources. An Action Plan⁴ has been drafted, and implementation will start in 2024.

Breakout groups: Use and collection of economic and social data for fisheries and aquaculture management

Breakout group questions

1. What kind of data, methods and tools are important to improve fisheries and aquaculture management in your country or territory?
2. What support from SPC would you need to include social and economic considerations in fisheries and aquaculture management?
3. How can the Socioeconomic Community of Practice support your work?

² <https://purl.org/spc/digilib/doc/zj35s>

³ <https://icriforum.org/socmon/>

⁴ https://docs.google.com/document/action_plan