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POLICY BRIEF

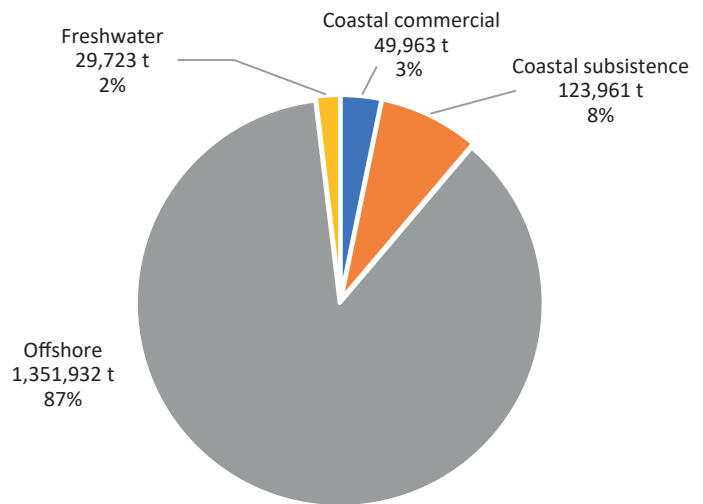
The coastal fisheries findings and policy implications of the Benefish Study 4

Purpose

This policy brief highlights the results and policy implications related to coastal fisheries in the Benefish Study 4. The study examined fisheries production (coastal, offshore, aquaculture, and freshwater) on national and regional levels and quantified the benefits flowing from those fishery categories (i.e., contributions to GDP, exports, government revenue, employment, and nutrition).¹

Coastal fisheries production in the region in 2021

Using the best available information, the Benefish Study 4 estimated the volume and value of fishery production for each Pacific Island country and territory (PICT) for the year 2021. Across all PICTs the volume of coastal fisheries production, relative to total fisheries production in the various fishery categories² in 2021, is shown in the chart to the right. Coastal fisheries production is divided between catches from coastal commercial fishing and coastal subsistence fishing.



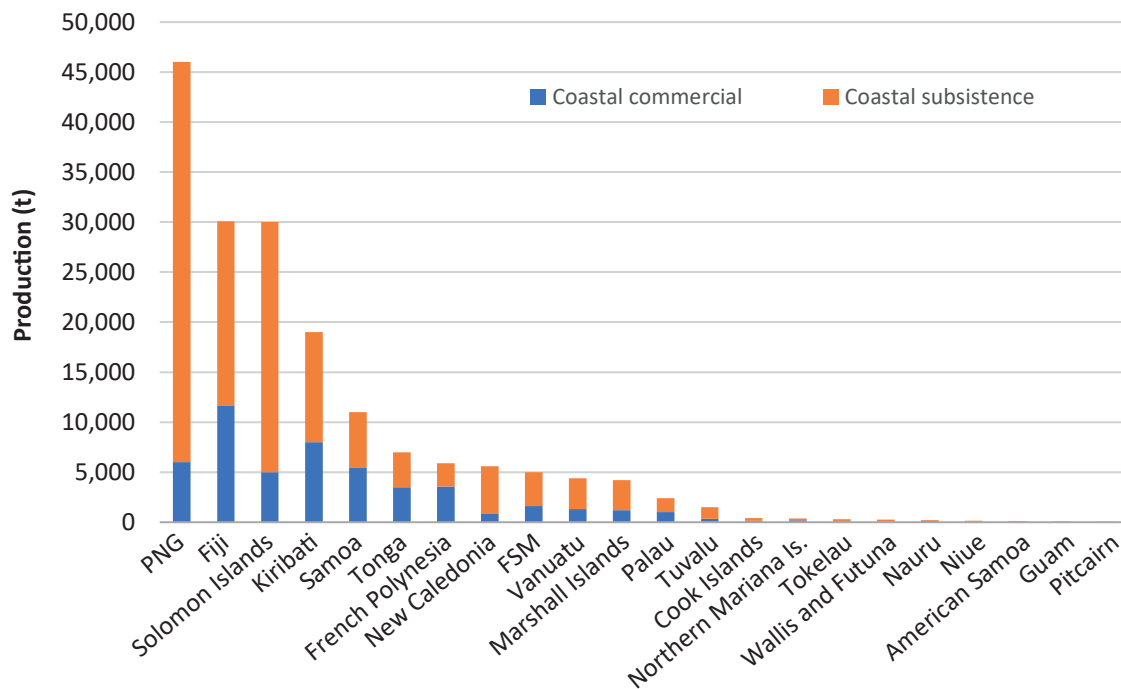
2021 PICTs fishery production

¹ The full Benefish Study 4 report is available at: <https://purl.org/spc/digilib/doc/ppizh>

² Aquaculture production is not shown in the chart due to different units of measurement for some aquaculture commodities (e.g., kg vs pieces).



The volume in tonnes (t) and composition in 2021 of the coastal catches in each PICT is given in the graph below.



Coastal fisheries production (t) in the Pacific Island region

Key messages

- Although the catch statistics for the offshore fisheries are considered reasonably accurate, the statistics for coastal fisheries for most PICTs are quite poor – especially for the coastal subsistence fisheries. In many cases the estimates for coastal fisheries production made by the Benefish study could be considered as educated guesses.
- PNG, Fiji and Solomon Islands combined are responsible for 61% of all coastal fisheries production in the region. There is a tendency for the more developed PICTs to have proportionally less coastal subsistence than commercial fishery production.
- Fiji's coastal commercial fisheries production is greater than any other PICT, even PNG, which has nine times more people. Even considering just coastal populations, Fiji's coastal commercial production is almost twice that of PNG, despite having less than a third of the coastal population. This is likely to be due to the undeveloped nature of PNG's coastal commercial fisheries.
- Coastal fisheries are crucially important as they provide the vast majority of fish from the region for consumption by PICT communities, given that almost all offshore fisheries production is shipped out of the region. In 2021 coastal fisheries supplied 13.8 kg per capita. A previous Benefish study, covering the year 2007, showed an annual per capita supply of coastal fish of 16.1 kg, which equates to a decrease of 14% over the 14-year period.
- Although COVID-19 affected the fisheries in all PICTs in different ways, its general impact on coastal fisheries in many PICTs was depressed coastal commercial production and moderately elevated coastal subsistence production.
- For all PICTs combined, the average value of a tonne of coastal commercial catch is US\$3,405, coastal subsistence US\$ 2,259, offshore locally based US\$1,442, offshore foreign-based US\$1,298, and freshwater US\$1,519. The high value of coastal commercial is due to the high prices for some of its catch (e.g., sea cucumber).
- Commercial and subsistence coastal fishing together are responsible for most of the contribution from fisheries in the region to GDP, employment, and regional fish supply - despite the volume of coastal production (174,084 tonnes) being much less than that of offshore fishing (1,351,932 tonnes).

- The contribution of coastal fishing to the various fisheries benefits is:

	Contribution to GDP	Contribution to exports	Contribution to access fees	Contribution to employment	Contribution to fish supply
Coastal commercial	About 17.9% across the region	Substantial in some countries but across the region much less important than locally based offshore fishing	Zero	Large in most countries	Very large
Coastal subsistence	About 38.9% across the region	Zero	Zero	Large in most countries	Very large

- Information on employment in coastal fisheries is poor and is largely absent in some countries, while employment data on the tuna fisheries is readily available. It is important to recognise the value of collecting data on fisheries participation. Employment is an important benefit from fisheries, and it needs to be quantified so that the sector's contribution can be fully appreciated. On a different level, this information is critically important to inform fisheries management decisions. Such decisions often involve trade-offs, including those that need to balance economic efficiency with employment, so it is important to determine how many people will be impacted, both positively and negatively.
- The household income and expenditure survey (HIES) is an under-utilised tool in determining coastal fisheries production in the region (Box).
- During the Benefish Study 4, travel extended to most PICTs. A general impression in most PICTs was that the effectiveness of coastal fisheries management has declined, resulting in a deterioration in coastal fishery resources. This may have many causes, and certainly there are large differences between countries. Probable reasons include the following:
 - Fisheries close to urban areas are unmanageable.
 - Increased attention to offshore fisheries management at the expense of coastal fisheries management (i.e., gravitation of budgets and effective staff to the tuna fisheries).
 - Mostly unsuccessful attempts to use reef ranching and reef enhancement as a substitute for management.
 - Disappointing results from past intervention in coastal fisheries management leading to fisheries agency fatigue.
 - The ineffectiveness of other interventions perceived to be easy alternatives to effective management (e.g., the use of alternative livelihoods).
 - Political pressure for interventions (e.g., donations of boats, engines and gear), that lead to increasing coastal fisheries production and invariably, long term resource declines.
 - Increased attention and publicity to the narrow issue of reef shark conservation at the expense of broader coastal fisheries management.

The use of the HIES in coastal fisheries

All PICTs have had, and will continue to carry out in the future, a HIES. Although it is a major tool of statistical departments in the region for estimating the contribution of coastal fisheries to GDP, most fisheries agencies are apathetic to the concept of using a HIES to estimate coastal fisheries production. The HIES can give information on coastal fishery production at little or no cost to fishery departments but in the past, there have been doubts as to the accuracy of annual coastal fishery production estimates made from the results of a HIES. SPC's Statistics for Development Division (SDD) has put a considerable amount of effort into improving the use of the HIES for fishery purposes, and the current HIES methodology promoted by SPC is thought to be reasonably effective for various types of fishery estimations, including national coastal commercial production, and per capita fish consumption. Fisheries agencies of the region should be encouraged to make more use of the HIES in their coastal fisheries work. As an initial step, fisheries agencies should proactively become more involved in the work of statistics departments in planning for a HIES.

The current outcomes of coastal fisheries management in the region are not all bad. There are many positive cases in the region (e.g., Navakavu in Fiji and Ontong Java in Solomon Islands) that deserve to be publicised.

Recommended policy actions

The decline in coastal fisheries production between 2007 and 2021 provides a wake-up call for countries and should drive greater attention to, and investment in, ensuring effective coastal fisheries management. Urgent policy action is required to improve coastal fisheries production data, which should allow to better identify the causes of this decline and assist in developing efforts to address it.

The Benefish Study 4 and a number of other reports point to a regional decline in the supply of fish for consumption from traditional sources (i.e., coastal fisheries). Several mechanisms to mitigate this decline have been pursued over the years, including aquaculture, fish aggregating device (FAD) fishing and encouraging the use of fish (including bycatch) from offshore fishing, with varying degrees of success. Considering the gravity of the fish shortage problem, its impact on island communities, and how many resources have been invested to alleviate the situation, more information is needed on the effectiveness of these schemes. This will enable more targeted and effective policies and strategies for managing coastal fisheries to be developed.

During all Benefish studies, it was observed that fisheries agencies experience several types of difficulties related to coastal fisheries statistics. Policy action is especially required to deal with two types of problems:

- A lack of funding for a dedicated coastal fisheries statistical system. To mitigate this situation, if a fisheries department cannot afford some type of conventional or snapshot fisheries survey, there should be a policy commitment to obtain information from studies outside the fisheries sector: a HIES, agriculture census, or national census. Effective cooperation between fisheries and statistics agencies on key data to be collected is essential to assure relevance of those surveys to fisheries.
- A lack of expertise to expand sampled catches to obtain the total catch of a geographic area. Accordingly, there should be a concerted effort by fishery agencies to gain expertise on extrapolating results of catch sampling to obtain a provincial or national total.



Some of the coastal fishery commodities (e.g. sea cucumber) have very high values

Gizo market, Solomon Islands. ©Andrew J. Smith, WWF/Aus

An important aspect of collecting fisheries information is ensuring an ongoing source of funding. Experience in establishing and supporting coastal fisheries statistical systems over the last four decades has shown that when donor funding for those systems is withdrawn, the financing from national sources that supports the collection of coastal fisheries statistics is highly vulnerable to budget cuts and is often reduced during financial crises. Policies are needed to deter such cuts.

Given the amount of effort on discrete fishery sub-sectors across the region (e.g., aquaculture, sea cucumber, FAD fishing) and the importance of employment to PICTs – efforts should be made to collect employment data in coastal fisheries sub-sectors. Fisheries agencies need to have policies in place to ensure that employment information is used when making fisheries management decisions for the concerned sub-sectors.

Having the data to understand the impact of fishing and to enable informed management decisions to ensure the sustainability of coastal fisheries is a key responsibility of government fishery agencies.